A Grammar of Proto-Germanic

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Preface

This grammar of Proto-Germanic is designed to provide a comprehensive but concise treatment of the language from approximately 2500 B.C. to the beginning of our era. All linguistic components are taken into consideration. The pragmatic component is dealt with in the Introduction, and to some extent in chapter six (on semantics and culture), in which the semantic component is the major topic; chapters two to five treat the grammatical component, with separate chapters devoted to phonology, inflectional morphology, derivational morphology, and syntax.

Discussion of details, as of special forms of words, is kept to a minimum on the grounds that these are better presented in etymological and other dictionaries, or in editions of texts. Similarly, only major or distinctive works on the grammar are listed. Treated since the early days of historical linguistics in the early nineteenth century, as by Jacob Grimm in four large volumes, a full bibliography is enormous; it can be accessed through bibliographic journals like those of the Indogermanische Gesellschaft or the Modern Language Association as well as the International Linguistic Bibliography.

However extensive earlier work may have been, it was devoted almost entirely to phonology and inflectional morphology. Accordingly, Proto-Germanic was not conceived as a whole, nor as a characteristic structure: it was treated as a reflex of the Indo-European reconstructions presented by leading specialists of the past like Brugmann and Meillet. But, as can scarcely be stated too frequently, Brugmann was explicit in pointing out that his Indo-European was not the result of historical reconstruction but rather a compilation of comparable data in its dialects, especially Sanskrit, Greek and Latin. When Proto-Germanic was related to such a compilation, it was assumed to be a direct reflex of the material published by Brugmann and others applying the same principles, rather than the reflex of an earlier language.

We assume a single Germanic language, with a common core of speakers, on the basis of elements common to all its dialects such as ablaut in phonology, comparable inflection of nouns, adjectives, pronouns and verbs, comparable syntactic structure, and comparable vocabulary (e.g. for kinship terms). We also assume that speakers of its dialects left that common core at different times, as is clear from linguistic data. Germanic does not reflect the augment, which must have been introduced into Indo-Iranian, Greek and Armenian after the Indo-European community began breaking up. Accordingly, Brugmann's compilation is based largely on data of a stage that does not apply to Germanic.

A realistic reconstruction of Proto-Germanic, then, must be made largely on the basis of evidence from its dialects. Treatment of that evidence also requires consideration of such matters as the period of time after the flourishing of the proto-language when the dialect was attested, the type of material that has survived, much of which is translated from Greek and Latin, and the body of data, most of which is ecclesiastical. Yet among the various proto-languages that have been reconstructed, Proto-Germanic may be one of the most realistic because of the highly detailed examination of the attested material over the past two centuries, the relative retention of vocabulary and grammatical structure as determined from study of the other Indo-European dialects, and the

relevance of the reconstruction to the civilization as postulated on the basis of archeological and historical data.

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I. INTRODUCTION

1.1. Definition of Proto-Germanic

Proto-Germanic (PGmc) is the reconstructed language from which the attested Germanic dialects developed; chief among these are Gothic (Go.) representing East Germanic, Old Norse (ON) representing North Germanic, and Old English (OE), Old Saxon (OS), and Old High German (OHG) representing West Germanic. PGmc is distinguished from the other Indo-European languages by phonological innovations such as the change of consonants characterized by Grimm's Law, by morphological innovations such as the introduction of the dental preterite and the *n*- declension of adjectives, by syntactic innovations such as the large number of modal auxiliaries, and by numerous additions to its lexicon.

As a reconstructed language, Proto-Germanic is not attested in texts; the material on which it is based is found in the attested dialects that developed from it. A yet earlier stage, reconstructed as Proto-Indo-European (PIE), includes means to account for and also to explain the reconstruction. That is to say, the beginnings of PGmc are assumed to overlap with the late stages of PIE, and data from later developments in Germanic dialects compared with evidence from PIE provides the basis for a grammar of PGmc comparable to those for languages spoken today, if not so detailed. PGmc may be dated from approximately 2500 B.C. to the beginning of our era, a period during which it underwent numerous changes.

Our grammar is arranged in three traditional systems:

- the phonological system (chapter 2);
- the syntactic system (chapters 3, 4, 5);
- the semantic system (chapter 6).

The semantic system is presented in relation to the cultural context of the reconstructed language.

Our knowledge of the phonological system and of the morphological component of the syntactic system is relatively good because much of the energy devoted to Germanic linguistics in the nineteenth and twentieth centuries was directed at these areas. Sentence patterns and the semantic system have received far less treatment; as a result, presentation of these requires considerable attention, especially their interpretation in accordance with general linguistic principles that have been developed in recent years. While the resulting grammar of Proto-Germanic may be less assured in some respects than are grammars of attested languages, it is represented here in compact form on the basis of the available data.

1.2. The Available Data

The only textual material contemporary with [late] Proto-Germanic is recorded in classical authors, or maintained in borrowings into other languages as exemplified by Finnish *kuningas* 'king'. Classical texts chiefly include proper names, such as *Khariomēros* in Greek and *Langobardi* in Latin texts. This material has been assembled and interpreted, as by Kluge (1913:5-47). Also important are the earliest Runic inscriptions; while they tend to be longer than the discrete Germanic items recorded in other languages, they are restricted in content and structure. Their language is archaic, though many can be dated only a few centuries before the time of other materials recorded in Germanic dialects such as Old English; few precede the time of our Gothic texts.

These materials provide the earliest data, but the most comprehensive data are provided in texts of Gothic, Old Norse/Old Icelandic, Old English, Old Saxon, and Old High German written in the first millennium A.D. Other dialects, such as Old Frisian, have fewer materials. The modern Germanic languages have generally developed so far from Proto-Germanic that they provide little evidence for its description; for most purposes, only the earliest texts can be used. In the reconstruction of the phonological system, morphologically isolated forms in the "everyday vocabulary" are highly important. An example is Go. *faihu*, ON *fé*, OE *feoh*, OS *fehu*, OHG *fehu* 'cattle', on the basis of which PGmc *fehu* is reconstructed. When possible, as here, the reconstruction is shown with comparable forms in other languages, such as Lat. *pecu* 'herd', Skt *páśu*, Lith. *pẽkus*.

Inflected forms in the everyday vocabulary are similarly important for reconstructing the morphological system; among these are verbs like ON *bīta*, OE *bītan*, OS *bītan*, OHG *bītan* 'bite' and Go. *(and-)beitan*, 3rd sg. pret. *and-bait*, 3rd pl. pret. *and-bitan*, past ptc. *and-bitans*. On the basis of these, PGmc *bītan-* and comparable forms are reconstructed and supported by cognates such as Gk *pheídomai* 'I separate'. Another example is Go. *bairan, bar, baurun, baurans*, and comparable forms for ON *bera*, OE *beran*, OS *beran*, OHG *beran*, from which PGmc *beran* and the other forms are reconstructed, supported by cognates such as Lat. *ferō* 'I bear'. For these and other verbs, as well as nouns, adjectives and pronouns, the entire set of grammatical forms is reconstructed. In this way the morphology of Proto-Germanic is identified, as well as its phonology.

Conclusions may be supported by examination of borrowed forms, such as OE *scrīfan*, OS *scrīban*, OHG *scrīban* 'write'. Since these are inflected like inherited forms such as PGmc *bītan-*, they may seem to be native and not borrowed forms. But the Latin cognate *scrībere* has the same medial consonant as OHG *scrīban*; moreover the initial consonantal cluster *scr* is rare in Germanic, so that the assumption of a borrowing is supported. Such borrowings also support identification of the phonological elements in the items involved, like the *-ī-* in the Germanic forms, since the phonological structure of Latin is well known.

Other borrowings are often difficult to interpret, such as those taken from Germanic into Finnish. It has been assumed that some of these were adopted in Finnish before the Germanic consonant shift. By this assumption, Finnish *kana* versus the Proto-Germanic form of ON *hane* 'rooster' would have maintained the voiceless velar stop of Proto-Indo-European before the Germanic consonant shift. But the *k-* of *kana* can also be interpreted as a substitute for PGmc *x-* < *h-*, a phoneme not found in Finnish. By the interpretation of Finnish *k-* as a substitute for the shifted phoneme, the borrowing may

have been relatively late. Secure conclusions can therefore be based on borrowings only when there is corrobative information of a relationship between the groups of speakers concerned.

The reconstructed syntax is based on sentences in the earliest texts, especially Runic inscriptions such as the Gallehus inscription of the early 5th century:

ek hlewagastiz holtijaz horna tawido
I Hlewagastir (the) Holtijan (the) horn I-made
'I Hliugast of Holt made the horn'.

The line is representative of Germanic word order, even though it is constructed in accordance with poetic principles as may be noted by comparing lines in the Old Icelandic *Song of Weland* such as line 4:

drósir suðrœnar, dýrt lín spunno,
women southern dear linen they-were-spinning
'southern women, they were spinning expensive linen'.

In both examples, the verbs occupy final position in accordance with the arrangements of SOV (Subject Object Verb, often referred to as OV) languages. Metrical requirements may have led to other patterns, such as the placement of the adjective *suðrœnar* after its noun, in contrast with the typical pre-positioning of adjectives in OV languages as exemplified by *dýrt*. As in these examples, conclusions regarding syntactic patterns are examined in accordance with typological principles; these assist in identifying patterns modified for stylistic or metrical reasons. Typological principles have been applied in the reconstruction of the phonological and morphological as well as syntactic components.

The semantic system is similarly reconstructed. The presence of words for cattle, sheep, goats, horses, etc., indicates use of domestic animals, which in turn provides evidence for the social context in which Proto-Germanic was spoken. Moreover, the word for linen is found in all the Germanic languages, *lein* in Gothic and *līn* in the others; it can therefore be reconstructed for Proto-Germanic, where its presence evidences the cultivation of flax for use in the production of clothing.

The early texts, then, provide ample data for reconstructing the phonological, grammatical and semantic systems of Proto-Germanic. These are proposed on the basis of well-established methods, as stated in the next section. The data for the social context are supplemented by descriptions in classical texts, chiefly Caesar's *Gallic War* and Tacitus' *Germania*, and by information from archeological discoveries.

1.3. The Linguistic Methods

Three methods are used to identify earlier elements: the comparative method, the method of internal reconstruction, and the examination of residues; the results of these are then considered in accordance with typological principles determined in the general study of languages. These principles are especially important in the reconstruction of syntax, but they apply also for the other components: expletives like "hmpf", for example, would not be taken into consideration when a phonological system is

reconstructed. Morphological features and paradigms are reconstructed with reference to patterns that are attested in the declensional and conjugational systems of many languages.

1.3.1. The Comparative Method

Using the comparative method, comparable forms in related languages are examined and earlier items are reconstructed on the basis of similarity in form, in distribution, and in relation to other elements. Examples were provided in the previous section. The reconstruction of PGmc *t* on the basis of Gothic, Old English, and Old High German forms provides a more complex example. Five positions are illustrated:

	Initial before vowels	**Medial after *-r-, -l-, -n-***	**Intervocalic**	**Initial before *-r-***	**After tauto-syllabic *s-***
Go.	*tagr* 'tear'	*hairto* 'heart'	*itan* 'eat'	*trauan* 'trust'	*standan* 'stand'
OE	*tēar*	*heorte*	*etan*	*trūwian*	*standan*
OHG	*zahar*	*herza*	*ezzan*	*trūēn*	*stantan*

The comparable forms of *t* in Gothic and Old English, supported by the same forms in the last two Old High German words, provide evidence for reconstructing Proto-Germanic *t*. Further examination of particular developments in Old High German leads to explanation of the *z, zz* in the first three words, and in this way supports the assumption of Proto-Germanic *t*.

1.3.2. The Method of Internal Reconstruction

Through use of internal reconstruction, earlier elements and patterns are identified using paradigmatic variations in a language. The procedures are based on the observation that sound change takes place in specific phonological environments, regardless of morphological classes or paradigms. If phonological alternations are found within morphological paradigms, it may be possible to reconstruct the earlier situation. Examples may be taken from Old English verbs:

cēosan 'choose' *cēas curon coren*
sēoðan 'boil' *sēað sudon sodden*

The variation in the second consonant of these verbs is not found in the majority of Old English verbs, e.g.

cēowan 'chew' *cēaw cuwon cowen*
grīpan 'grab' *grāp gripon gripen*

On the basis of lack of variation in the majority of verbs, it may be proposed without comparison of material in other Indo-European languages that the *s : r* and *ð : d* developed from earlier single sources. Efforts to identify those sources may be guided by related forms like OE *cost* 'object of choice' or by examination of subsequent forms like NE *seethe*. The earlier consonants are then posited as *s* and *ð*.

The importance of the method of internal reconstruction lies in its applicability to data in one language alone. Its use permits reconstruction of earlier forms from forms that themselves are reconstructed, as for example in a language like Proto-Indo-European.

1.3.3. The Use of Residues

Residues are elements that are found among the common items of a language. Differing forms of these may be learned by children before they master the systems by which regular elements are constructed, such as the forms of *man : men, woman : women* in contrast with less common words like *span : spans, woolen : woolens*. Explanation of the plurals of *man* and *woman* and other such forms may then be proposed, such as that they were at one time formed by modification of the stem vowel through the process known as umlaut. Conclusions based on residues may be more problematic than conclusions based on use of the comparative method or the method of internal reconstruction, but they can also be supported by earlier forms of such words if cognates are attested.

Residues may also appear in morphological items. For example, Go. *wait* 'I know' and *witum* 'we know' have the forms of the preterite, although the glosses obviously indicate the present tense. An explanation may be found by adducing the weak verb Go. *witan* 'keep watch over'; comparison with it suggests that the root meaning is 'see'. The forms *wait : witum* then are accounted for through a shift in meaning from 'I/we have seen' to 'I/we know'. The further assumption then may be drawn that, at an earlier stage, the form providing the preterite in Germanic indicated a state resulting from completed action. In this way the preterite forms with present meaning are accounted for, as well as their basis.

1.4. Examination of the Results of such Applications by General or Typological Principles

As suggested above in reference to syntactic elements, application of these methods is carried out with constant attention to general principles that are based on analysis and description of all known languages. Before a brief account of these is given, it should be noted that the historical grammars of Proto-Indo-European and the Indo-European languages produced in the past two centuries are based primarily on the grammars of Sanskrit, Greek, and to a lesser extent Classical Latin. In accordance with this basis, Proto-Indo-European is assumed to have had eight cases in its nominal system and an extensive verbal system. As a result of this assumption, explanations were required for the smaller number of cases in the Germanic languages and for its system of (only) two tenses, among other features. This basis can no longer be maintained, in part due to the reason proposed for its assumption.

The preeminent Indo-Europeanists Brugmann and Meillet stated that their central works, Brugmann's *Grundriss* (1897-1916) and Meillet's *Introduction* (1937), are not grammars that represent an earlier language but rather are summaries of the data found in the Indo-European dialects. In making that statement, Brugmann added that a historical approach was preferable, but that the time for it had not yet come. More than a century has passed since then, and the time has indeed come. As stated above, historical grammars must now be produced on the same basis as grammars of contemporary languages. Accordingly, a grammar of Proto-Germanic must be a

description of the language from approximately 2500 B.C. to the beginning of the common era, as noted above. A grammar of Proto-Indo-European must be a description of the language from approximately 5000 B.C. to 2500 B.C. A grammar of the still earlier stage, Pre-Indo-European, must be a description of the language spoken from approximately 8000 B.C. to 5000 B.C. In reviewing below the current methods for providing and supporting descriptions of all languages, those methods of central importance for reconstructing Pre-Indo-European are given first. They continue procedures that were inaugurated in the 19th century and are generally referred to as "typological."

1.5. Specific Language Types

Specific types have been determined for all the components of languages, but those of special importance concern the semantic system and the syntactic system. Each has an effect on other systems of the language in question, as will be noted in the following sections.

1.5.1. Government and Agreement Languages

Until recently it was taken for granted that all languages were like English, in which government is central. For example, verbs govern nouns and pronouns, as in *See her*. So do adpositions, as in *with her*. No distinction is made in English grammar between nouns and verbs with animate and inanimate reference, so that *I see the dog* and *I see the fire* have the same pattern. All the major languages spoken today are structured in this way, from Chinese and Japanese through Hindi and Arabic to the languages of Europe. But in turning attention to many of the Amerindian and African languages, and to languages spoken by small groups elsewhere, as in the Caucasus, a different basic structure has been identified. In such languages, agreement is central rather than government. Two fundamentally different types of language are then recognized: Government Languages and Agreement Languages. Much of the investigation leading to this understanding was carried out by Soviet linguists (cf. Klimov 1983); they refer to the approach as "contentive," that is, based on content rather than form. In this approach, the semantic system is central.

Each type has two sub-types. For Government Languages, these are Nominative/Accusative (often referred to as Nominative or as Accusative) and Ergative; for Agreement Languages, these are Active and Class. In Class Languages, nouns and verbs are marked with affixes that represent semantic classes like humans, trees, and tools, such as Sesotho *mo-* for person in *mo-tho*, *se-* for tree in *se-fate*, *n-* for dog in *n-tjá* (Demuth 2000:273). In Active Languages, nouns and verbs are classified either as representing animate/active or as representing inanimate/stative items or processes, such as the prefix *o-* with active verbs like 'run' *o-jan* 'is running', and the prefix *i-* with words like 'good' *i-katu* 'is good' (Seki 1990:369). Sentences are constructed by pairing animate nouns and verbs that agree in classification rather than by government, as of verbs accompanied by objects. The discovery and description of Agreement Languages is highly important for Indo-European studies because Pre-Indo-European can now be identified as an Agreement Language of the Active type.

In Pre-Indo-European as an Active Language there were three parts of speech: nouns, verbs, and particles. There was no inflection. In the typical sentence pattern, verbs were

final: items corresponding to objects preceded them. If there were overt subjects, they preceded objects and any adverbial elements. Relationships were indicated by particles. In the course of time, some particles came to be attached to nouns and others to verbs; the combinations resulted in the inflections of Proto-Indo-European. While Proto-Indo-European was a Government Language, and Proto-Germanic as well, residues of the earlier Active stage may be expected in accordance with section 1.3.3 above. Some of these have been maintained to the time of Proto-Germanic, of which two are noted here.

Active languages distinguish between inclusive and exclusive pronouns, so that a form corresponding to *we* could either include or exclude reference to the hearer as well as the speaker, that is, 'I and you' or 'I and others, but not you'. Prokosch (1939:282) pointed out that many languages make this distinction, such as "most Australian languages, nearly all of the Austronesian and most of the Dravidian group...", and he proposed that Proto-Indo-European had, as well; in this way he accounted for the use of PIE **we-* for the first person plural in Germanic, as in Go. *weis* 'we' and as second plural pronoun in Latin *vōs* 'you', and also in the Gothic second person plural dative and accusative form *izwis* '(to) you' — citing, as well, forms from other Indo-European languages. He provided a description, but not an explanation. An explanation is now provided by the assumption that the twofold use is a residue from the Active stage of Pre-Indo-European, where forms of **we-* indicated the inclusive meaning 'I and you'. As another "residue," Proto-Germanic has few adjectives that are inherited from Proto-Indo-European. In Active languages, stative verbs take the place of adjectives. Contentive typology in this way provides explanations for features of Proto-Indo-European and Proto-Germanic that had been noted, as by Prokosch, but not explained. More such features will be observed in the treatment of the syntactic and semantic systems in chapters 5 and 6.

1.5.2. VO and OV Languages

Quite independently of these features in the semantic system of Government Languages, characteristic features have been identified that distinguish the syntactic systems of languages. These are based on the position of the verb with regard to the object. As VO languages, English and the major European languages have the verb placed before the object. Many other languages, such as Japanese and Turkish, place the verb finally: they are OV languages. Subsets of these types are based on the placement of subjects, yielding six syntactic types. Biblical Hebrew, like the Semitic languages in general, places verbs initially, so that it is a VSO language, in contrast with the European SVO languages of today. Similarly there are two types of OV languages, SOV and OSV. Final position of subjects, yielding VOS and OVS languages, is rare, as are languages of the OSV type.

Syntactic and morphological elements are arranged in accordance with the two basic types. As a general principle, modifiers are placed outside the central structure, whether OV or VO, so that adjectives, genitive modifiers and relative clauses typically stand before nouns in OV languages, but after them in VO languages. Similarly, verbal modifiers, like markers of tense, mood and person, stand before verbs in VO languages, vs. after them in OV languages. Further, adpositions, like verbs, are placed before nouns as prepositions in VO languages but after them as postpositions in OV languages. And comparative constructions place the item compared, referred to as the standard, in

accordance with the position of the object, often including a particle as in Japanese *are yori kare ga takai* 'that from this is expensive' = 'this is more expensive than that'.

Few languages are consistent. For example, adjectives stand before nouns in modern English, and older forms of English included more such inconsistencies. They reflect the still earlier situation of Proto-Indo-European, which had OV structure. Observation of the various patterns provides clues on the history of a language. French, for example, places adjectives after nouns, and is accordingly more consistently VO than English. It has developed farther from the OV structure of Proto-Indo-European than has English.

In examining the syntactic development of language, I some time ago proposed that when a language is adopted by many non-native speakers, it tends to become SVO. Modern Spoken Arabic for example, in contrast with VSO Classical Arabic, has become an SVO language. The shift of the Germanic languages from the OV structure of Proto-Indo-European to the VO structure of the modern dialects provides us with data on their social context through the past five millennia or so, as does that of Greek and Latin. We know from historical sources, such as Livy's *History of Rome*, that Latin was adopted by many speakers of other languages, such as Etruscan; its shift to VO structure may be credited to such adoptions. The shift in the Germanic languages is similarly explained.

1.6. The Phonological Structure of Languages

The principles of phonological structure have long been determined. Elements are grouped by phonetic value and distribution. In this way the [t] of *stand* is grouped with the [t] of *tan*, even though the latter is aspirated while the former is not; the (shared) functional sound, or "phoneme," is labelled /t/. Similarly, the [ts] of the Japanese word for one, hitotsu, is grouped with the [t] before [o] because [ts] stands only before [u] while [t] stands before [e a o]; both are variants ("allophones") of the phoneme /t/, in contrast with the different phonetic elements indicated between brackets such as Japanese [ts].

In current historical grammars, the phonological elements proposed are usually phonemes. Brugmann on the other hand proposed some phonetic elements for Proto-Indo-European; for example, on the assumption that some occurrences of Proto-Indo-European *s* were voiced, he included *z* as well as *s* in his system (1897:72). These and his other phonetic elements, like *þ* and *ð*, are no longer accepted as distinct phonemes in Proto-Indo-European.

Two subsets of phonemes are proposed for a language: the consonants and vowels are referred to as segmental; pitch and stress are referred to as supra-segmental. While modern English, German and so on have a stress system, the accentual system of early Proto-Germanic was based on pitch, as is that of the Chinese languages today.

1.7. The Syntactic Structure of Languages

Two systems are subsumed by syntactic structure: the morphological system and the system of sentences. The morphological system deals with the inflection and derivation of words. In traditional grammars the inflectional sub-system enjoys by far the most extensive presentation, and so-called exceptions are treated in detail. In this grammar,

only the major inflections are presented (chapter 3); occasional forms that may be variations of individual items are assumed to be treated in dictionaries, including etymological dictionaries. The derivational elements are presented similarly (chapter 4).

The system of sentences deals with the structure of the sentence and its elements. These are presented (chapter 5) in accordance with the principles discussed in section 1.4 above. The earliest data in the dialects indicate that Proto-Germanic was an OV language; sentences as well as the morphological systems include residues of Indo-European Active structure. The treatment of such elements is critical for understanding the relation of Germanic to the other Indo-European languages, and for understanding its relation to Proto-Indo-European.

1.8. The Semantic Structure of Languages

The semantic structure of a language is least often viewed as a system. Groups of elements are recognized, such as kinship terms, but for the most part the vocabulary is divided into general groups such as terms for nature, for foods, for the household, and so on; in this way vocabulary reflects the culture and the social structure of the speakers, supplementing the information obtained from texts, from archeological findings, and to some extent from genealogical findings.

1.9. The Relationship of Germanic to the Other Indo-European Languages

The relationship of the Germanic language group to other language groups can only be determined by evidence in the languages. The closest language groups to Germanic are the Balto-Slavic, the Italic, and the Celtic. Yet, unlike Indo-Iranian, Greek, and Armenian, which have the augment as a common innovation as well as extensive verbal inflection, these four western groups lack any common phonological or morphological innovations. They share common vocabulary items, more for instance between Germanic and Italic than between Germanic and Celtic. Some of these may be attributed to a relatively late date, such as the name of a grain, either wheat or spelt, Lat. *far*, ON *bǫrr*, and the name of the goat, Lat. *haedus*, Go. *gaits*, as well as that of the male goat, Lat. *caper*, ON *hafr*.

Similarly, the Germanic words in common with Celtic indicate contacts between the two groups, but not major innovations; among them is a word for wagon, OIr. *fēn*, ON *vagn*, and a word for traveling, Irish *rīadaim*, OE *rīdan*. Among vocabulary items common to Germanic and Baltic are the words for eleven and twelve, which are innovations of the pattern "one/two left over" — Go. *ainlif*, Lith. *vienúolika* 'eleven' & Go. *twalif*, Lith. *dvýlika* 'twelve' — and words for movement, OE *gengan*, Lith. *źengiù* 'go, stride'. Other examples are given by Porzig (1954:106-147), some of which will be examined in the last section of this grammar.

In view of the absence of common innovations shared among other dialects, such as the augment, I assume that Germanic broke off independently — early — from Proto-Indo-European. Its archaic structure has been pointed out variously, as for instance in my article on the conservatism of Germanic phonology (Lehmann, 1953) and in subsequent publications.

1.10. The Development of Germanic

The development of Latin provides the model for understanding the expansion of the other Indo-European dialects. In its early form, it was the language of a small group of speakers in northern Italy in the eighth century B.C. Among other language groups at the time, that of the speakers of Etruscan was probably the largest. In the course of the following centuries, Latin was adopted by those groups, including also speakers of Celtic languages in the north, of Venetic, of Oscan and Umbrian, and even of Greek in the south, so that at the beginning of our era Latin was the most prominent language in the Italian peninsula. The bases for its expansion can only be imagined, but among them was military competence, as may be assumed from the account of the historian Livy. Other Classical historians, among them Herodotus, have provided material on various groups of speakers elsewhere, such as those north of the Black Sea; but for none of their languages do we have information comparable to Livy's for Latin.

The earliest description of the Germanic group of speakers was provided by Julius Caesar for the middle of the last century B.C., in the sixth section of his work on the Gallic wars, which with Tacitus' *Germania* of 98 A.D. remains central for any description of Germanic culture.

It may be concluded, then, that the Germanic group of speakers developed somewhat independently of the other Indo-European dialect groups. For a long time, the group may have been relatively small; but whatever the size, it was coherent at the time of the Germanic consonant shift for, unlike the later High German consonant shift, the earlier shift was carried through consistently among all speakers of Proto-Germanic, as was also the adoption of the dental preterite for weak verbs. Such consistently adopted changes can only have been introduced and generally carried out in a group that was in close intercommunication. Only after the Germanic shift did sub-groups develop: the speakers of Gothic, Old Norse, Old English, Old High German, and so on. As separate groups, they introduced innovations leading to the dialects that later became independent languages.

II. PHONOLOGY

2.1. The Phonological System

The phonological system is presented in two sub-systems: the consonants & vowels making up the segmental sub-system, and the accentuation & basis of the syllabic structure making up the supra-segmental sub-system. Both sub-systems of Proto-Germanic, like other reconstructed languages, are determined largely by the comparative method. The method of internal reconstruction is also important in determining the earlier accentual system of Proto-Germanic, which then is supported by comparison with those of Indo-Iranian and Greek.

The development of the elements of a phonological systems is affected in part by the syllabic structure of the language. The syllabic structure of Proto-Germanic is still evident in the earliest Runic inscriptions, which show that many of the syllables were open; the closed syllables for the most part ended in resonants, as illustrated by the Gallehus inscription:

ek hle-wa-ga-stiz hol-ti-jaz hor-na ta-wi-do

The initial position of obstruents, *g-, h-, t-, d-*, illustrates why the first consonant shift was universally carried through except in clusters like *st-*: their position in the syllable was similar. The only syllable closed by an obstruent is the first. But its cognates, Latin *egō* and Greek *égō*, provide evidence that the early Proto-Germanic form was *e-ga* > *e-ka* > *ek* as supported by Runic inscriptions, e.g. on the Ellestad stone. The form *ek* in turn provides evidence that late Proto-Germanic had a stress accent and that unstressed final vowels were lost after the consonant shift had taken place, as illustrated also by words recorded in the dialects such as Gothic *haurn*. Further evidence for an initial stress accent in the dialects is provided by the poetry which, like the inscription above with its three syllables beginning with *h*, was alliterative.

2.2. The Segmental Phonemes of Proto-Germanic

The consonant system consists of ten obstruents, i.e. stops and fricatives, and six resonants. In the early stage of the language, each of the obstruents had the same pronunciation in its various locations, although the voiceless stops may already have been followed by aspiration except when after /f s χ/. Later, /b d g/ had fricative allophones when medial between vowels. The fricatives, notably /s/, may have developed voiced allophones in voiced contexts, and by late Proto-Germanic /z/ was phonemic. When between consonants, the resonants /w m n r l y/ had vocalic allophones in early Proto-Germanic, which developed to /u um un ur ul i/ in the language's later stages.

The vocalic system consisted of eight vowels and four diphthongs. The low back vowel, indicated below by the symbol **a**, is lower than that of the later dialects, as may be illustrated by the Gothic representation in *haurn* 'horn'.

Consonants:	**Labials**	**Dentals**	**Velars**
Stops	p b	t d	k g
Fricatives	f	þ s [z]	χ [h]
Resonants	m	n	
	w	r l	y

Vowels:	i	ī	u	ū
	e	ē	a	ō
Diphthongs:	ei	ai	eu	au

Examples are as follows.

Consonant System

Labials:

/p/ as in PGmc *déwpaz* 'deep', cf. Go. *diups**, ON *djūpr*, OE *dēop*, OHG *tiuf*

/b/ as in PGmc *bōks* 'tablet' > 'book', cf. Go. *bōka*, ON *bōk*, OE *bōc*, OHG *buoh*

/f/ as in PGmc *fōts* 'foot', cf. ON *fōtr*, OE *fōt*, OHG *fuoz*

Dentals:

/t/ as in PGmc *téuχanan* 'to push', cf. Go. *tiuhan*, OE *tēon*, OHG *ziohan*

/d/ as in PGmc *durez* 'door' n.pl., cf. Go. *daúr*, ON *dyrr* n.pl., OE *duru*

/þ/ as in PGmc *þrsúz* 'dry', cf. Go. *þaúrsus*, ON *þurr*, OE *þyrre*, OHG *durri*

Velars:

/k/ as in PGmc *kŕnam* 'grain', cf. Go. *kaúrn*, ON *korn*, OE *corn*, OHG *corn*

/g/ as in PGmc *gárdiz* 'garden', cf. Go. *gards*, ON *garðr*, OE *geard*, OHG *gart*

/χ/ as in PGmc *χŕdiz* 'wattle', cf. Go. *haúrds*, ON *hurð*, OS *hurth*, OHG *hurd*

Sibilants:

/s/ as in PGmc *sunōn* 'sun', cf. Go. *sunnō*, ON *sunna*, OE *sunna*, OHG *sunno*

[z] as in PGmc *méyzaz* 'more', cf. Go. *máiza*, ON *meiri*, OE *māra*, OHG *mēro*

Resonants:

/m/ as in PGmc *maχtiz* 'might', cf. Go. *mahts*, ON *māttr*, OE *meaht*, OHG *maht*

/n/ as in PGmc *naχts* 'night', cf. Go. *nahts*, ON *nātt**, OE *neaht*, OHG *naht*

/w/ as in PGmc *waganaz* 'wagon', cf. Crim.Go. *waghen*, ON *vagn*, OE *wægn*

/r/ as in PGmc *reχtaz* 'right, straight', cf. Go. *raíhts**, ON *rēttr*, OS *reht*, OHG *reht*

/l/ as in PGmc *langaz* 'long', cf. Go. *lagg**, ON *langr*, OE *long*, OHG *lang*

/y/ as in PGmc *yēra* 'year', cf. Go. *jēr*, ON *ār*, OE *gēar*, OHG *jār*

Vocalic System

Short vowels:

/i/ as in PGmc *witum* 'we know', cf. Go. *witum*, ON *vitom*, OE *witom*, OHG *wizzum*

/e/ as in PGmc *erþō* 'earth', cf. Go. *aírþa*, OE *eorþ*, OHG *erda*

/a/ as in PGmc *af* 'from', cf. Go. *af*, ON *af*, OE *of*, OHG *aba, ab*

/u/ as in PGmc *ufar* 'over', cf. Go. *ufar*, ON *yfir*, OE *ofer*, OHG *ubir, ubar*

Long vowels:

/ī/ as in PGmc *swīnaz* 'pig', cf. Go. **swein*, ON *svīn*, OE *swīn*, OHG *swīn*

/ē/ as in PGmc *sēþiz* 'seed', cf. Go. *mana-sēþs*, ON *sāð*, OE *sǣd*, OHG *sāt*

/ō/ as in PGmc *flōduz* 'flood', cf. Go. *flōdus*, Run. *flodu*, ON *flōð*, OHG *fluot*

/ū/ as in PGmc *fūla* 'foul', cf. Go. *fūls*, ON *fūll*, OE *fūl*, OHG *fūl*

Diphthongs:

/ei/ as in PGmc *steig-*, cf. Go. *steigan*, ON *stīga*, OE *stīgan*, OHG *stīgan* 'climb'

/ai/ as in PGmc *staig*, cf. Go. *stáig*, OHG *steig* 'climbed'

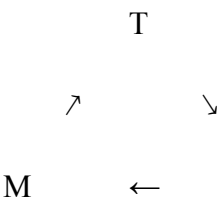
/eu/ as in PGmc *beud-*, cf. Go. *-biudan*, OE *bēodan*, OHG *biotan* 'bid, offer, order'

/au/ as in PGmc *baud-*, cf. Go. *báuþ*, ON *bauþ* 'offered'

2.3. Relation of the PGmc Segmental Phonemes to those of PIE

The Proto-Indo-European consonants are given here in the standard notation, i.e. *p b bh*. Proponents of the glottalic theory hold that PIE /b d g/ were glottalics, and that the other two sets had aspirated as well as simple allophones; a principal reason for the theory is the presence of relatively few examples of PIE /b/, a situation characteristic of languages with glottalics. But nonetheless the theory is not generally accepted; Szemerényi, for example, strongly rejected it (1996:151-154). Moreover, since the relationship among the three elements is maintained, the modifications proposed in the theory are sub-phonemic.

The principal changes that took place between Proto-Indo-European and Proto-Germanic involved the Proto-Indo-European stops. PIE /p t k/ > PGmc /f þ χ/, PIE /b d g/ > PGmc /p t k/, and PIE /bh dh gh/ > PGmc /β ð γ/ [b d g]. Formulated in this way by Jacob Grimm in 1822, the set of changes is referred to as Grimm's Law. In formulating his 'law', Grimm assumed three classes of consonants using Latin labels: Tenues (T) for the voiceless stops /p t k/, Aspiratae (A) for the compound stops /bh dh gh/, and Mediae (M) for the voiced stops /b d g/. This gave rise to the diagram:



The labels as well as the term 'law' were justified in Grimm's view because he assumed that the later consonant changes in Old High German were a continuation of the earlier changes. In the Old High German changes, voiceless stops (T) became affricates and fricatives, i.e. Aspiratae (A) as in the word *Pfeife* 'pipe', so that his rule still applies: Tenues change to Aspiratae.

Among other changes between Proto-Indo-European and Proto-Germanic is the loss of labio-velars, which became clusters in Germanic or else fell together with other phonemes.

For ease of comparison, the examples are listed below in the same order as those above, that is, by the order of the Proto-Germanic phonemes rather than Proto-Indo-European reconstructions. Cognates in the other dialects are provided when examples are readily available, and the same items are given here as in the chart of Proto-Germanic phonemes above.

Consonant System

Labials:

PIE /b/ > PGmc /p/ as in *dewpaz* 'deep', cf. Lith. *dubùs* 'deep', Gaul. *Dubno-rix*

PIE /bh/ > PGmc /b/ as in*bōks* 'tablet', cf. Gk *phāgós* 'oak', Lat. *fāgus* 'beech'

PIE /p/ > PGmc /f/ as in *fōts* 'foot', cf. Skt acc. *pā́dam*, Gk gen. *podós*

Dentals:

PIE /d/ > PGmc /t/ as in *teuχanan* 'pull', cf. OLat. *doucō*, Lat. *dūcō* 'I lead'

PIE /dh/ > PGmc /d/, as in *durez* 'door', cf. Gk *thúrā*, Lat. *foris* 'door'

PIE /t/ > PGmc /þ/ as in *þrsúz* 'dry', cf. Lat. *torrus*, OIr. *tur* 'dry'

Velars:

PIE /g/ > PGmc /k/ as in *krnam* 'grain', cf. Lat. *grānum* 'grain', Lith. *žìrnis* 'pea'

PIE /gh/ > PGmc /g/ as in *gardiz* 'yard', cf. Gk *χórtos*, Lat. *hortus* 'garden'

PIE /k/ > PGmc /χ/ as in *χrdiz* 'wattle', cf. Gk *kúrtos* 'cage', Lat. *crātis 'wicker-work'*

Labio-velars:

PIE /g^{w}/ > PGmc /kw/ as in *kwemanan* 'come', OHG *kweman*, cf. Gk *baínō*, Lat. *venio*

PIE /g^{w}h/ > PGmc /gw/ as in *singwanan* 'sing', Go. *siggwan*, cf. Gk *omφḗ* 'oracle'

PIE /k^{w}/ > PGmc /hw/ as in *χwat* 'what', cf. Lat. *quod* 'what'

Sibilants:

PIE /s/ > PGmc /s/ as in *sunōn* 'sun', cf. Lat. *sōl* 'sun'

PIE /s/ > PGmc /z/ as in *méyzaz* 'more', cf. Gk *meízōn* 'more'

Resonants:

PIE [m] > PGmc /m/ as in *malanan* 'grind', cf. Lat. *molere*

PIE [n] > PGmc /n/ as in *naχts* 'night', cf. Skt *náktam*, Gk gen. *nuktós*

PIE [w] > PGmc /w/ as in *waganaz* 'wagon', cf. Skt *váhanam* 'vehicle', Gk *óχos* 'wagon'

PIE [r] > PGmc /r/ as in *reχtaz* 'right, straight', cf. Lat. *rectus*, Gk *orektós* 'straight'

PIE [l] > PGmc /l/ as in PGmc *langaz* 'long', cf. Lat. *longus*, Gaulish *longo-* 'long'

PIE [y] > PGmc /y/ as in *yēra* 'year', cf. Av. *yārə* 'year', Lith. *jéras* 'yearling lamb'

Vocalic System

Vowels:

PIE /i/ > PGmc /i/ as in *witum* 'we know', cf. Skt *vidma*, Gk *ídmen* 'we know'

PIE /e/ > PGmc /e/ as in PGmc *erþō* 'earth', cf. Gk *érā* 'earth', Welsh *erw* 'field'

PIE /ə/ > PGmc /a/ as in *fadēr* 'father', cf. Gk *patḗr*, Lat. *pater* 'father'

PIE /o/ > PGmc /a/ as in *aχtō* 'eight', cf. Gk *oktṓ*, Lat. *octō* 'eight'

PIE /u/ > PGmc /u/ as in PGmc *ufar* 'over', cf. Skt *upári*, Lat. *super* 'over'

PIE /ī/ > PGmc /ī/ as in *swīnaz* 'pig', cf. Lat. *suīnus*, OCS *svins* 'of pig'

PIE /ē/ > PGmc /ē/ as in *sēþiz* 'seed', cf. Lat. *sēmen*, OPruss. *semen* 'seed'

PIE /ā/ > PGmc /ō/ as in *brōþar* 'brother', cf. Skt *bhrā́tā*, Lat. *frāter* 'brother'

PIE /ō/ > PGmc /ō/ as in *flōduz* 'flood', cf. Gk *plōtós* 'floating'

PIE /ū/ > PGmc /ū/ as in *fūlu* 'foul', cf. Lith. *pū́lias* pl. 'pus', Skt *pū́tis* 'foul'

Diphthongs

PIE /ey/ > PGmc /ei/ as in *steig- 'climb'*, Go. *-steigan*, cf. Gk *steíkhō* 'climb'

PIE /oy/ > PGmc /ai/ as in *staig-* 'climbed', Go. *-staig*

PIE /eu/ > PGmc /eu-/ as in *beud- 'order'*, cf. Go. *-biudan* 'order', cf. Gk *peúthomai* 'examine'

PIE /ou/ > PGmc /au/ as in *baud-* 'ordered', Go. *-bauþ* 'ordered'

2.4. Exceptions to the Major Changes of Consonants

When Jacob Grimm stated his rules, he also noted words in which they did not apply; these have come to be known as exceptions, and there are three sets. In the first set, PIE *p t k* remained unchanged, as in Gothic *s**p**eiwan*, cf. Lat. *s**p**uō* 'spit'. In the second set, Proto-Germanic voiced stops corresponded to stops rather than to aspirates in Greek and Sanskrit, as in Gothic ***d**auhtar*, Skt ***d**uhitā́* 'daughter'. In the third set, medial fricatives were voiced rather than voiceless in Germanic words with Proto-Indo-European voiceless stops, as in the past tense forms Old English *tēah* 'he pulled', *tu**g**on* 'they pulled', cf. Lat. *dūcō* 'I lead'; modern English has the first form, though without *h*, in the present tense of the golfing term *tee off*, and the second in the present tense form with *g* in *tug*. Grimm did not account for the different reflexes; later linguists did, over a half century after the publication of the second edition of his grammar in 1822. The explanations for the exceptions illustrate the progressively greater understanding of the relationships within the Indo-European family, and also the greater understanding of language in general.

The first set of exceptions was accounted for relatively soon after Grimm's publications. Knowledge of and attention to phonetics was increasing. Various linguists then noted that the unshifted stops stood after Germanic voiceless fricatives /f s χ/. Examples were readily found, among them:

- PIE /p/ = PGmc /p/ as in Go. *speiwan*, cf. Lat. *spuō*, Lith. *spiáuju* 'spit'
- PIE /t/ = PGmc /t/ as in Go. *-hafts*, cf. Lat. *captus* 'captured', OIr. *cacht* 'female slave';
  also as in Go. *steigan*, cf. Skt *stighnoti*, Gk *steíkhō* 'climb'
- PIE /k/ = PGmc /k/ as in Go. *skeinan* 'shine', cf. Gk *skiá* 'shadow'

Their position in clusters rather than as independent elements blocked the change.

The basis of the second set of exceptions was noted by the young Rudolf von Raumer in 1837; he pointed out that, since Sanskrit does not permit aspirates in two successive syllables, a form like *bódhati* 'observe' might well come from a root *bhudh*. But the implications for the Germanic forms were not pursued. Only with Hermann Grassmann's article of 1863 did it become clear that the problem was not in Germanic but rather in Sanskrit and Greek, an observation that might well have shaken the generally held position that Proto-Indo-European should be largely reconstructed on the basis of data in these two languages. The first aspirate generally lost its aspiration, but so might the second, as in the Greek word for daughter, *thugátēr*. As in the examples below, PIE /bh dh gh/ had become the voiceless aspirates /ph th kh/ in Greek. Examples are:

- PIE *bhewdh* > PGmc *beud-* as in OE *bēodan* 'order', cf. Skt *bódhati* 'observe', Gk *peúthomai* 'examine'
- PIE *dhagh* > PGmc *dag-* as in Go. *dags* 'day', cf. Skt *dāhas* 'heat', Gk *téphra* 'ashes'
- PIE *ghredh* > PGmc *gred-* as in Go. *grēdags* 'hungry', cf. Skt *gardhas* 'greed'

The evidence was so clear that the statement that one of two aspirates in successive syllables in Sanskrit and Greek lost its aspiration came to be known as Grassmann's law; when deaspirated, the aspirates show up as simple stops. As a result of

Grassmann's demonstration, linguists came to understand that they had to note successive syllables and entire words, not merely their individual elements.

In the third group of exceptions, Proto-Indo-European medial voiceless stops and medial *s* became voiced rather than voiceless fricatives in Germanic; the voiced fricatives from stops then became voiced stops in the Germanic dialects, as in the forms below.

- PIE *-p□-* > PGmc *-b-* as in Go. *sibun*, OHG *sibun*, cf. Skt *saptá*, Gk *heptá* 'seven'
- PIE *-t□-* > PGmc *-d-* as in Go. *fadar*, ON *faðir*, OE *fæder*, cf. Skt *pitā́*, Gk *patḗr*
- PIE *-s□-* > PGmc *-z-* > *-r-* as in OE *snoru*, OHG *snura*, cf. Skt *snuṣā́* 'daughter-in-law'
- PIE *-k□-* > PGmc *-g-* as in OE *swæger*, OHG *swigar* 'mother-in-law', cf. Gk *hekurā́*

The relationship to the position of the accent is established beyond question by noting the consonant variation in strong verb paradigms, e.g. in preterite forms:

	OHG	**OE**	**Skt**
1 sg.	zeh	táh 'accused'	didéśa < *-déika
1 pl.	zigum	tigon	didiśimá < *-dikimá

Verner (1875) accounted for these exceptions as follows: the Proto-Germanic voiceless fricatives /f θ s χ/ became voiced /v ð z γ/ in voiced surroundings if the preceding syllable did not have the primary stress accent according to its Proto-Indo-European position. This formulation, known as Verner's Law, found immediate acceptance, and influenced the views of linguists in numerous ways. Possibly most important, it directed their attention at supra-segmentals. Through their many studies of stress and pitch, and of metrical patterns based on these, the journals give abundant evidence of the impact of Verner's article during the last quarter of the nineteenth century. Verner's article also gave assurance that the Proto-Indo-European accent was one of movable pitch, and that it survived remarkably long in Germanic as well as in Sanskrit and Greek. Germanic, accordingly, was demonstrated to be more conservative than the thorough-going consonant changes had seemed to indicate.

With the last of the exceptions accounted for, younger contemporaries of Verner, labeled neo-grammarians by their older colleagues, concluded that sound changes take place without exception in carefully defined environments. This view enabled its holders to proceed to the solution of many phonological problems, and has subsequently remained the nucleus of historical linguistic methodology.

The time frame of the Germanic consonant change has been a matter of great speculation. From observations of other comprehensive sound changes, such as the Great English Vowel Shift, it may be assumed that the Germanic change took place over the course of centuries. Because pertinent evidence from borrowings into and out of early Germanic is lacking, there is no external evidence for the date of the Germanic change, and its beginnings can only be tentatively stated as possibly at the end of the second millennium B.C., with its completion after the middle of the first millennium B.C. when comparable shifts of accent were under way in Italic and Celtic. This dating

receives support from the long maintenance of vowels in final syllables, as in *-gastiz* of the Gallehus inscription, and in the complex development of the Indo-European labio-velars in Germanic.

2.5. Reflexes of the Indo-European Labio-velars

The Indo-European labio-velars were long maintained as units in Proto-Germanic. Even as late as the 4th century A.D., Wulfila selected distinct symbols for the voiceless velar *k*^{w} in Gothic, that is, the symbol for the numeral 6, which is transcribed |q| in our texts, and also for the aspirated velar *h*^{w}, that is, the symbol for 700, which is transcribed in our texts with a ligature based on *h*^{w}. But he did not represent [g^{w}] with either of the two unused symbols, those for 90 and 900. In time, the three labio-velars developed into velars or into labial resonants or into vowels, even in Gothic. The unit phonemes must then have been gradually modified to clusters and thereupon reduced or even lost in the dialects, as illustrated in the following examples:

- PIE *sek*^{w}- as in Gk *hépomai*, Lat. *sequor* 'follow' : Go. *saih*^{w}*an*, OHG *sehan*, OE *sēon* 'see'; Go. *siuns* 'face'; OE *gesihþ*, OHG *gisiht* 'sight'
- PIE *g*^{w}*em*- as in Skt *gámati* 'go', Lat. *veniō* 'come' : Go. *qiman*, OHG *queman*, ON *koma*, OE *cuman* 'come'
- PIE *kney-g*^{w}*h*- 'bow' as in Lat. *cōnīveō* 'shut the eyes' : Go. *hneiwan*, ON *hnīga*, OE *hnīgan*, OHG *hnīgan* 'bow'

Because the voiced variant, as in PIE *g*^{w}*īwos*, Go. *qius*, ON *kvikr*, OE *cwic(u)* 'alive', and in PIE *g*^{w}*en*-, Go. *qino*, ON *kona*, OE *cwene* 'woman', and in other words was treated like PIE *g*, holders of the glottalic theory face the problem of accounting for a glottalized labio-velar.

As illustrated by these examples, the reflexes of the labio-velars vary in the Germanic dialects, so that they must be accounted for in the dialects rather than in Proto-Germanic. It may be assumed that they became clusters only late, probably even at the time of the Germanic consonant shift. In that shift, some were treated like Germanic reflexes of the Proto-Indo-European clusters /kw gw g^{h}w/, as examples of these illustrate.

- PIE *ḱwey-t/d*- as in Skt *śvetá*, Av. *spaetō* 'white' : Go. *h*^{w}*eits*, ON *hvītr*, OE *hwīt*, 'white'
- PIE *éḱwos* as in Skt *áśvas*, Gk *híppos* 'horse' : Go. *aih*^{w}*a*-, OE *eoh* 'horse'.

Treatment also varies, as before vowels. PIE *k*^{w} and *g*^{w} became PGmc *hw*, *kw* before front vowels, but *h*, *k* before high back vowels, as in ON *kona* beside Go. *qino*, OE *cwene* 'woman', and in OE *cucu* beside *cwic(u)* 'alive'. In verbs as well, the forms may differ from dialect to dialect in accordance with the variant generalized, as illustrated by the principal parts of 'see':

	Infinitive	1/3 sg. Preterite		1 pl. Preterite	Past Participle
Old English	sēon	sēah	**Anglian**	sēgon	gesegen
West Saxon				sāwon	sewen
Old Saxon	sehan	sah		sāwum	gisewan
Old High German	sehan	sah		sāhum	gisewan

The final treatments must be accounted for in the descriptions of the different dialects, such as the *-g-* of the Anglian preterite form, and the *-w-* of the West Saxon forms. For Proto-Germanic we assume first unit phonemes, then clusters parallel to those that developed from sequences of velars and *w*, and finally variants of these in differing contexts.

2.6. Reflexes of the Indo-European Resonants

The Indo-European resonants /m n r l y w/ were maintained as consonants in Proto-Germanic when initial, as illustrated by the following examples:

- PIE *mel-* 'grind' as in Lat. *molō*; cf. Go. *malan*, ON *mala*, OHG *malan* 'grind'
- PIE *nem-* 'take' as in Gk *némō* 'distribute'; cf. Go. *niman*, ON *nema*, OE *niman* 'take, accept'
- PIE *rowdho-* 'red' as in Lith. *raũdas*; cf. Go. *ráudái*, ON *rauðr*, OE *rēad* 'red'
- PIE *leyk^{w}-* 'leave' as in Lat. *linquō*; cf. Go. *leih^{w}an*, ON *ljā*, OE *on-lēon*, OHG *līhan* 'lend'
- PIE *wiros* 'man' as in Lat. *vir*, OIr. *fer*; cf. Go. *wair*, ON *verr*, OE *wer*, OHG *wer* 'man'
- PIE *yeHw-* as in Welsh *ieu* 'younger'; cf. Go. *jugga-*, OE *geong*, OHG *jung* 'young'

Here, as in other locations, the reflexes maintain the allophonic variation of the resonants in Proto-Indo-European that was determined by Sievers and subsequently refined by Edgerton; the basis of it is referred to as the Sievers-Edgerton law. Briefly, the law states that the resonants were consonantal initially and medially before vowels, vocalic medially between consonants, and vocalic plus consonantal medially after long syllables, e.g. /y/ [y i iy], /w/ [w u uw], /r/ [r ṛ ṛr] and so on. The distribution may be illustrated with examples of /y/:

aya	kit	ātiya
-ya, atya	-it	ktiya
ay-, ayt	ti-	-tiya

The distribution was disrupted already in late Proto-Indo-European when, under some circumstances, /ī ū/ developed from /i u/ as in *swīnos* 'pig'. It continued into the dialects until the Indo-European situation was completely modified. Among other modifications, initial [w] was lost in Greek, as in *oîda* = Go. *wáit* 'I know'; there were similar modifications in all of the dialects.

The disruption was gradual in Germanic, as illustrated by examples such as the following. Go. *skadus*, OE *sceadu*, OHG *skato* 'shadow' must be reconstructed as PGmc

skadwas, cf. OE *sceadwian*, OHG *skatewen* 'to shadow'. The vowel of the final syllable was not lost until final vowels underwent reduction in late Proto-Germanic; [w] thereupon became [u]. Similarly, PGmc *knyam* > *kunyam* > *kunyã* developed to PGmc *kuni* as in Go. *kuni*, ON *kyn*, OE *cynn*, OS *kunni*, OHG *chunni* 'race'. PGmc *-ã* < *-an* was lost relatively late; its reflex was still written in the early Runic inscriptions, e.g. Gallehus *horna*. When after its loss as in **kunyã* the preceding *-y-* became [i], the allophonic variation must still have been current. Further evidence for the consonantal allophone [y] is provided by geminated forms like the *-nn-* of *chunni*. [y] must have been maintained until the time of the West Germanic consonant lengthening, as in the nominative-accusative form PGmc *kunyam* before the loss of *-ã*.

Metrical patterns also provide evidence for long maintenance of the earlier allophonic variation. In Old English and in Old Icelandic verse, *l m n* after short syllables as in OE *setl, fæðm, dagn* are metrically non-significant, but after long syllables as in OE *sūsl, bōsm, bēacn* they are counted as separate syllables. We may ascribe the difference in metrics to the earlier allophonic treatment, as between PGmc [setlas] and [sūsl̥las]; metrical conventions treating the two patterns differently were apparently established at the time of the variation and maintained after the different treatment was eliminated from the language. In late Old English verse the linguistic patterns outweighed the metrical, so that the old conventions were abandoned.

2.6.1. Lengthening of Proto-Germanic /y/ and /w/

Long maintenance of the Proto-Indo-European allophonic variation of the resonants is also indicated by a specific development. In a number of words, /w y/ are represented as lengthened in West Germanic and as clusters of stop plus resonant in North and East Germanic, as illustrated by the following examples:

- OS gen.pl. *eiiere*, OHG dat.sg. *eiie*, Crim.Go. *ada* < **addya*, ON *egg* 'egg'
- OE *trēow*, OS *treuua*, OHG *trēow* 'faithfulness', Go. *triggws*, ON *tryggr* 'faithful'

The PGmc forms are reconstructed with lengthened *y* and *w*. The process has been treated in many publications; it is referred to as *Verschärfung*, or as Holtzmann's Law in accordance with the name of an early contributor (Lehmann 1952:36-46). Numerous explanations were proposed in the 19th century, as by position of the accent, but then dismissed because they did not apply consistently. Smith (1941) accounted for the lengthening by the presence of Proto-Indo-European laryngeals.

2.6.1a. Evidence for Laryngeals in Proto-Indo-European

The evidence for the assumption of laryngeals in Proto-Indo-European and the early dialects that is pertinent for explanation of *Verschärfung* may be summarized briefly. Proto-Indo-European roots are assumed to have had the structure: *CeC*, as in roots like PIE *teg-* 'cover'. Roots reconstructed with an initial consonant followed by a long vowel were then analyzed with a final laryngeal, such as PIE *dheʔ* rather than *dhē* 'place', *deɣ* rather than *dō* 'give', *(s)teχ* rather than *(s)tā* 'stand'. Similarly, forms that had been reconstructed with an original long vowel were reconstructed with short vowel plus laryngeal, e.g. Greek *ōón* with variant in Sappho *ōi̯on*, Latin *ōvum* 'egg', from PIE *oH-* followed by the resonant /y/ in Sappho's form, by /w/ in Latin. Similarly, Greek *phūō*

'grow' from PIE *bhew* 'grow' is assumed to have had a laryngeal suffixed in the variant *bhu-H-*, which is reflected in the Sanskrit participial form *bhūta-* 'grown' < PIE *bhu-H-tó-*. Accordingly, forms in other dialects provide evidence for laryngeals that may have been maintained in Germanic.

Other forms from such roots have *i* as reflex of the laryngeal, e.g. Skt *bhavitum* and the past perfect participles of the three roots above, *dhitá, hitá, sthitá*. Such forms with *-i-* then provide evidence for positing laryngeals in earlier forms of Germanic and other dialects. Further evidence is found in Sanskrit verbs of the ninth class, such as *skunā́ti* 'cover' from the extended root *(s)kw-n-eχ-*, in which *-n-* is infixed between the root and the laryngeal suffix. Ninth class verbs give evidence for the *a*-coloring laryngeal *-χ*.

Bases with laryngeals have acute intonation in Lithuanian verbs, such as *káuti* 'strike'; cf. Lat. *cūdō* 'strike'. Such forms provide evidence for the earlier presence of laryngeals in roots and bases with a contiguous *w* or *y*.

The only written evidence for laryngeals is found in the Anatolian languages where the reflexes of some of the laryngeals are indicated as *-h-* and *-hh-* (cf. Lehmann 1952:22-35 *et passim* and Lindeman 1987 for further discussion and bibliography).

2.6.1b. Reflexes of [y w] in Germanic when Adjacent to Laryngeals

Germanic cognates of forms with [w y] adjacent to laryngeals are attested with lengthened *w* and *y* in the West Germanic dialects. In Gothic and North Germanic, *ww* developed to *ggw*; *yy* developed to *ddj* in Gothic and to *ggj* in North Germanic. While these developments are of concern in treatment of these dialects rather than in a description of Proto-Germanic, examples of the late Proto-Germanic situation will be given here with cognates in a non-Germanic dialect that indicate evidence for a Proto-Indo-European laryngeal in contact with a resonant.

Among examples with lengthened *-ww-* < *-wχ-* are the Old Saxon form *beuuod* 'harvest' and ON *bygg*, dat. sg. *byggue* 'barley'. Cognates indicating the earlier presence of a laryngeal are Skt *bhūtá-* and Gk *éphūn* from PIE **bhew-* 'grow' followed by a laryngeal.

Similarly, Lat. *dēfrūtum* 'cider' from PIE *bhru-* plus laryngeal indicates that OE *brēowan* 'brew', ON *brugginn* 'brewed' must be reconstructed with *-ww-* from *-w-* plus laryngeal.

OS *hreuuan*, ON *hryggva* 'rue' with *-ww-* in Proto-Germanic have the Sanskrit cognate *kravís* 'raw meat', in which *-i-* developed from the laryngeal in PIE *kr-ew-X-*.

Go. *skuggwa* 'mirror', ON *skuggi*, OE *scuwo*, OHG *skuwo* 'shadow' have as cognate Skt *skunā́ti* 'cover', in which the laryngeal is reflected in the long vowel *ā* of the suffix.

OE *cēowan*, ON *tyggia* 'chew' from PIE *kew-X-* have as cognate Lith. *žiáunos* 'jawbone', in which the laryngeal is indicated by the acute intonation in Lithuanian.

Lengthened *-yy-* developed further to Gothic *-ddj-* and North Germanic *-ggy-*. In contrast with *-ww-* from *-wX-*, *-yy-* developed from both *-Xy-* and *-yX-*. An example with lengthened *-y-* from a preceding laryngeal is Go. *daddjan*, OSwed. *deggia*, OHG

tāju 'suckle', with cognates illustrating the root *dhē* in the Sanskrit aorist *ádhāt*, Gk *thḗsato* 'sucked' and the sequence *dhʔ-y-* in the Sanskrit past perfect participle *dhīta*. An example with *-yy-* from *-y-* lengthened by a following laryngeal is ON *Frigg*, the name of Odin's wife, and OS *frī*, OHG *friia* 'free' from PIE *pr-y-X-* as in Sanskrit *prīnā́ti* 'is pleased'.

Other examples may be found in the handbooks. Some of them have been disputed, as well as the hypothesis that laryngeals survived into Germanic and brought about the lengthening with further development to stops, though the evidence adduced is often slight. But for the items exemplified here, and many others, there is no question of the earlier presence of laryngeals.

2.6.2. Development of PGmc *-g-* and *-k-* in the Neighborhood of Laryngeals with *-w-*

While *-ww-* resulted from the combination of *-w-* plus a laryngeal, in the sequence of laryngeal plus *w* either *-k-* or *-g-* resulted. An example is ON *nǫkkvi*, OE *naca*, OHG *nacho* 'boat' which is cognate with Latin *nāvis*. The situation is complex because Germanic forms with *-u-* or *-w-* beside these are also attested, e.g. ON *nōr* 'ship', *naust* 'boat-house' and OHG *ver-nawun* 'boats that carry wood'. The difference in development may be ascribed to the treatment of the sequence *-eXw-* in Proto-Indo-European. As illustrated by the nominative forms Skt *náus*, Gk *naûs* and the accusative forms Skt *nā́vam*, Gk *nêa*, the laryngeal was lost in the nominative but maintained after *-e-* in the accusative, and also in the genitive as illustrated by Skt *nāvás*, Gk *nēós*, in which the laryngeal was maintained until it resulted in lengthening of the preceding vowel.

Among other examples are ON *kuikr*, OE *cuic*, OHG *queh* 'alive' with cognates illustrating the laryngeal, such as Skt *jīvá*, Lat. *vīvus* 'alive' < PIE *gʷyXw-os*. Similarly, ON *spic*, OE *spic*, OHG *speck* 'bacon' with cognates in Skt *pī́van*, Gk *pī́on* 'fat' < PIE *spyXw-on*. Also OE *tācor*, OHG *zeichur* 'brother-in-law-', cf. Skt *devṛ́*, Gk *dāḗr* < PIE *daXw-*. For other examples, see Austin (1946) and Lehmann (1952:37-42).

A number of examples in the Germanic dialects also give evidence of *-g-* < *-Xw-*:

- ON *bryggia* 'pier', OE *brycg*, OHG *brukka* 'bridge' beside Gaulish *briva* 'bridge' and Skt *bhrū́* 'bridge'
- OE *iuguð*, OHG *jugund* beside Skt *yū́va*, gen. *yūnás* 'youth'
- Go. *sugil*, OE *sygel* beside Skt *súvar*, Lat. *sōl*, Gk *hēélios* 'sun'
- OSwed. *mygg*, OE *muggia*, MHG *mucke* beside Gk *muîa* 'midge'

In each of these, the sequence of *-ug-* resulted from a reduced vowel followed by a laryngeal and *w*. The reason for the difference from sequences resulting in *-k-* is unclear. Austin ascribed it to absence of chief accent on the preceding vowel; I proposed derivation from different laryngeals. The forms illustrate that, like those resulting from *Verschärfung*, combinations of laryngeal with *w* and *y* resulted in reflexes other than resonants in late Proto-Germanic.

2.7. The Late Proto-Germanic Vowel System

By late Proto-Germanic, /i/ and /u/, which earlier were allophones of /y w/, had become separate phonemes. The frequency of /u/ was considerably increased by the addition of [u] from vocalic allophones of /l m n r/, but the short vowel system as a whole was symmetrical in consisting of four members:

i	u
e	a

2.7.1. The Phonological Status of PGmc [e] and [i]

PGmc /e/ and /a/ were reflexes of vocalic phonemes in Proto-Indo-European; /e/ was a reflex of PIE /e/, PGmc /a/ of late PIE /a o/. When PGmc /i/ and /u/ became phonemes, a fourfold system developed. But in spite of its symmetry in outline, the system was askew because of asymmetries in distribution. With its origin in /y/, PGmc /i/ was almost entirely restricted to syllables with weak stress; PGmc /e/ on the other hand was characteristically found in syllables with primary stress. Moreover, /i/ was found primarily before obstruents, whereas /e/ occurred before both resonants and obstruents. The two vowels were therefore in great part distributed complementarily. It has been suggested that they were allophones of one phoneme, and that a short vowel system of three members should be assumed for late Proto-Germanic (Twaddell 1948). Yet both occurred before /a u/ of following syllables, as in the near minimal pairs:

- PGmc *etanan* > Go. *itan*, ON *eta*, OE *etan*, OHG *ezzan* 'eat'
- PGmc *witanan* > Go. *witan*, ON *vita*, OE *witan*, OHG *wizzan* 'know'
- PGmc *wela* > Go. *waíla*, ON, OE *wel*, OHG *wela* 'indeed'
- PGmc *wilda* > Go. *wilda*, ON *vilda* 'I wished'

The assumption of a three vowel system is therefore untenable.

On the other hand, since /e/ and /i/ were virtually in complementary distribution, their coalescence would not have been unlikely. It may have occurred in the pre-Gothic vocalic system; in most words PGmc /e/ > /i/, as in *itan* 'eat', though not before /h r/ and finally, e.g. *waír* 'man'. PGmc /e/ was also maintained in the reduplicating syllables of Class 7 strong verbs in Gothic, e.g. *laílōt* 'let'. Interjections were unaffected, so that /e/ remained in *waíla* and /i/ in *hiri* 'come here'.

Redistribution is also notable in other dialects, as in:

- Go. *waír*, ON *verr*, OE *wer*, OHG *wer*, cf. Latin *vir* < PIE *wir-* 'man'
- OE *nest*, OHG *nest* 'nest' < PGmc *nistŏs*, cf. Latin *nīdus*

On the other hand, PIE /e/ > PGmc /i/ before PGmc /i j/ regardless of the rest of the environment, as in:

- Go. *ist*, ON Run. *ist*, OE *is*, OHG *ist* < PGmc *isti*, cf. Gk *ésti* 'is'

In keeping with this change, PIE /ey/ > PGmc /ei/ > /ii, ī/ as in:

- Go. *steigan*, ON *stīga*, OE *stīgan*, OHG *stīgan* 'climb', PGmc *stīganan*, cf. Gk *steíkhō*

PGmc /e/ also became /i/ before nasal and consonant, as in:

- Go. *fimf*, ON *fimm*, OE *fīf*, OHG *fimf* 'five', PGmc *fimfe*, cf. Gk *pénte*, Skt *páñca* 'five'

The change took place sufficiently early so that, upon loss of the nasal, the root of the verb was associated with strong verbs of the first class, as in:

- Go. *þeihan*, OHG *dīhan* < PGmc *þinχanan* 'thrive', cf. Skt *tanákti* 'coagulate'

In syllables without primary stress, /e/ > /i/, as in:

- ON *alin*, OHG *elina* 'ell', cf. Gk *ōlénē* 'elbow'

Through such changes, the frequency of /i/ was greatly increased.

2.7.2. The Phonological Status of PGmc [u] and [o]

In the back area there was only one high vowel /u/, with two allophones, [u] and [o]; [u] stood before nasals, as in:

- PGmc *χunda*, Go. *hunda*, ON *hund-rað*, OE *hundred*, OHG *hundert*, cf. Lat. *centum*
- PGmc *gumn-*, Go. *guma*, ON *gume*, OE *gume*, OHG *gomo* 'man', cf. Lat. *homo*

Elsewhere [o] stood before short and long /a/, [u] before other vowels and finally, e.g.

- PGmc *dur-*, Go. *daúr*, OE *dor*, OHG *tor* 'door', cf. Gk *thúrā*
- PGmc *ufer*, Go. *ufar*, ON *yfer*, OHG *ubir* 'over', cf. Skt *upári*
- PGmc *filu*, Go. *filu*, OE *feolu*, OHG *filu* 'much', cf. Gk *polú*

The phonological conditioning gave rise to subsequent variation, as in ON *guð* 'god' but *goda-hus* 'temple'. With such variation there was disruption of the original patterns, so that we also find ON *goð* beside *guð* and also OE *god*, OHG *got*; similarly, we find Go. *fugls*, ON *fugl*, OE *fugol*, OHG *fugal*, but also ON *fogl*, OHG *fogal* 'bird'. As in the high front area, there was a redistribution of [u o] in Gothic, with [o] (*au*) standing before /h r/ and finally. In the other dialects, /o/ came to be phonemic in a short vowel system of five members.

2.7.3. The Long Vowel System

While the early long vowel system also consisted of four members, the articulation of the two lower vowels differed from those of the short vowels in being relatively low. In words with Latin *ō*, the vowel was raised to *ū* rather than lowered to *ā*, as in Go. *Rumoneis*, corresponding to Lat. *Rōmānī*, and OHG *Rūma*, ON *Rūma-borg* to Lat. *Rōma*. PGmc *bōkān-* 'beech' was represented by Caesar as *(silva) Bacēnis* 'Beechwood'. But at the end of the Proto-Germanic period the system was expanded with *ā*. As one source, [a] was lengthened on the loss of [n] before /χ/, as in the infinitive Go. *fāhan*, ON *fā*, OHG *fāhan* 'seize' beside the preterite ON *fingom*, OE *feng*, OHG *fieng*. The loss was late, because the older situation is still attested in the Burgundian name

Hanhualdus; and nasalization in Icelandic was still apparent to the First Grammarian, cir. 1200 A.D. (Haugen 1950:33-34). Latin borrowings provided a second source as in OSwed. *strāta*, OHG *strāza* 'street' from *(via) strāta*, and OE *pāl*, OHG *pfāl* 'pole', from Latin *pālas*. /ō/ then was raised, as indicated by developments in Old High German and in Slavic borrowings; beside Go. *Dōnawi* 'Danube', OHG attests the form *Tuonouwa*, and the Germanic form is taken over in Slavic as *Dūnāvi*.

2.7.4. Late Proto-Germanic Diphthongs

The early Proto-Germanic phonological system, like that of Proto-Indo-European, included no diphthongs. If vowels had formed diphthongal units with resonants, we would expect characteristic developments for them. Yet until late Proto-Germanic, vowels undergo the same developments before resonants as elsewhere; PIE /a o ə/ > PGmc /a/ before /y/ and /w/ as well as in other environments. Similarly, PIE /e/ > PGmc /e/ before /w/ as well as before obstruents.

When, however, the Proto-Germanic allophonic variation of resonants began to be disrupted, the lower short vowels came to have distinct allophones before resonants. As noted above, [e] > [i] before [y] and thereupon coalesced with it to yield /ī/. Before /w/ it became the first element of a diphthong, as did /a/ before /y/ and /w/, leading to the three diphthongs:

- /ew/ as in PGmc *beudanan* 'bid, offer, order', Go. *ana-biudan*, ON *bjōđa*, OE *beodan*, OHG *biotan*
- /ay/ as in PGmc *aynos* 'one', Go. *áins*, ON *einn*, OE *ān*, OHG *ein*
- /aw/ as in PGmc *awkanan* 'increase', Go. *áukan*, ON *auka*, OE *ēacian*, OHG *ouhhōn*

Without an /ey/ diphthong, the system was asymmetrical. The gap was filled for a time by the reflex of a number of sequences that may be represented as /ēy/ but soon was modified, on the loss of /y/, to a vowel represented in grammars as *ē²* (long *e* two). Its most frequent source is the sequence of /ĕ/ plus laryngeal reflex plus /i/. For example, Go. *fēra* 'side, part' and OHG *fiara* 'here' are derived from PIE *sphēy-* (Pokorny 1959:983-984). The largest number of examples occurs in preterites of verbs of the seventh class with *-ai-* plus consonant as the vowel of the present, and also *-al/an-* and *-ē-*. As noted at greater length in the treatment of these verbs in the section on morphology, the origin of the PGmc *-ēy-* in the preterite is from PIE *-eXy-*; as one example OHG *sciet*, preterite of *sceidan*, OE *scēd*, preterite of *scādan* 'separate' from PIE *skeXy-* plus dental, cf. Lith. *skíedžu* 'separate'.

Parallelism was lost in the early dialects as the span of the diphthongs was decreased, a process that Prokosch (1939:105-107) related to the strong primary stress. While discussion of these changes is a topic for grammars of the dialects, several examples may be noted here:

- PGmc *staynas*, Go. *stáins*, OFris. *stēn*, OE *stān*, OHG *steinn* 'stone'
- PGmc *awgan-*, Go. *áugō*, OFris. *āga*, OE *ēage*, OHG *ouga* 'eye'
- PGmc *þewb-*, Go. *þiubs*, OE *þīof*, OHG *thiob* 'thief'

As exemplified above with OE *hēr* and cognates, the hypothetical diphthong /ey/ became monophthongal /ē/. Borrowings from Latin with /ē/ adopted this long *ē* rather than its earlier counterpart, as exemplified in Go. *mēs*, OHG *mias, meas* 'table' < Late Latin *mēsa* < *mensa*. The close articulation of both the new Germanic and the Latin vowels is indicated in the treatment of the Latin vowel in syllables with weaker stress in Germanic, as in OE *eced*, OS *ecid* < Latin *acētum* 'vinegar'. Moreover, with the addition of the new close *ē*, the inherited *ē* was lowered in many words such as OHG *Saat* 'seed'. The long vowels then were parallel to the short vowels, each set having five members.

2.8. The Supra-segmentals of Late Proto-Germanic

2.8.1. The Intonation Pattern

The supra-segmentals may be determined by several criteria, especially by their use in verse in the dialects. Early verse is alliterative; metrical units consist of individual lines, like that of the Gallehus inscription. Lines are based on four highlighted syllables, two or three of which are further marked by agreement of their initial elements. Two, or perhaps one, are so marked in the first half-line, agreeing in alliteration with the major stressed segment in the second half-line. Examples may be cited from recurrent patterns, such as the following from the Old English *Beowulf*.

371 Hrōþgār maþelode, helm Scyldinga
Hrothgar answered, ruler of Scyldings
957 Bēowulf maþelode, bearn Ecgþēowes
Beowulf addressed him born son of Ecgtheow

All four stressed syllables may also alliterate, often with twofold alliteration, as in line 941 of the Old Saxon *Heliand*. As the alliterating syllables indicate, strong stresses typically fall on nominal elements in the clause. Followed as they are by less stressed syllables, a falling intonation may be assumed for declarative sentences as in line 941 of the *Heliand*:

sô **m**ikilu is he **b**etara than ic. Nis thes **b**odon gi**m**aco
By so much is he better than I. There is no messenger with his ability.

From similar patterns in the contemporary languages, it may be assumed that the same intonation patterns applied already in earlier stages. English *bétter*, German *bésser* suggest an accent pattern of / □ ˇ /. The comparable intonation patterns of entire clauses may be similarly assumed, as indicated by the accents and the numerals following the sentences, with # indicating a final drop in pitch.

Hè is much bétter than Ì. 2 3 1 #
Èr ist viel bésser als ìch. 2 3 1 #

Further examples below illustrate more fully the intonation pattern of falling stress at the ends of lines.

The intonation pattern is also indicated by the bunching together of alphabetic symbols, as in line 1291a of the Monacensis manuscript of the Old Saxon *Heliand*, in which I indicate the weaker words by italicizing them:

sat*im*thuo*endi*suigoda sat by himself then and was silent

The absence of spaces between words suggests a continuous pattern. The accent marks on *thúo* and *suígoda* in the Palatina manuscript, however, indicate position of accents, supporting the 2 3 1 # pattern; it may then be assumed for late Proto-Germanic after the accent change from pitch to stress.

2.8.2. The Three Stress Accents

Conclusions may also be drawn from the development of consonants and vowels. The development of the consonant differentiation in OHG *uuas* : *uuāri* and similar forms that will be discussed below in the morphological section gives us information about the position of the accent in early Proto-Germanic; in the pre-form of *uuāri* the pitch accent fell on the second syllable. And the incidence of umlaut on syllables with primary stress though not on final syllables also indicates the distribution of the accent in the early dialects.

Cognates in other dialects also point to the patterns of accentuation in early Proto-Germanic with reflexes in the dialects, e.g. Go. *fidwor*, ON *fjōrir*, OE *fēower*, and Homeric Greek *písures*, Attic Greek *téttares*, 'four'.

Examination of poetic lines provides information of the accentuation after stress replaced pitch. In *Beowulf* 1231, four principal stresses fall on the initial syllables of words:

drúncne dríhtguman, dṓð swā i c bídd e
the drunken warriors do as I ask

A relatively important stress must also be assumed on the second syllable of *drihtguman* on the basis of *Beowulf* 99:

Swā ðā dríhtgùman, drḗamum lífdo n,
So then the warriors lived in joy,

The assumption of a strong stress on the second elements of compounds is supported by comparison of the treatment of consonants by Verner's law. Gothic *nauði-bandi* 'fetter' and *nauði-þaurfts* 'need' have a voiced dental fricative, in contrast with a voiceless in forms of the verb *nauþjan** 'force'. The voiced fricative may be accounted for by the accent of adjectival (determinative) compounds on their second element that was still maintained when Verner's law was in effect.

Three stresses may therefore be assumed for late Proto-Germanic, as well as breaks at the ends of sentences, and between words with those stresses. The earlier pattern of breaks after syllables is still apparent in the early Runic inscriptions, as noted above for the Gallehus inscription. And as in the Germanic languages today, pitch was maintained in conjunction with stress; normally the strongest stress was accompanied by the highest pitch, with pitch falling to ends of clauses and sentences.

2.8.3. Effect of the Stress on Final Syllables

As a result of the strong stress on words, final elements were lost; three such losses may be assumed for Proto-Germanic.

/n/ was lost in weakly stressed final syllables, as in the accusative singular *horna* of the Gallehus inscription. Initially the loss may have resulted in a nasalized vowel, for final vowels without *-n* were lost in the early inscriptions, as in Runic *un-nam* < **-nama*. But the nasalized final *a* was also lost by the time of the individual dialects, as in the accusatives Go. *dag*, ON *dag*, OE *dæg*, OHG *tag*. Final *n* was maintained, however, in words with short vowels that could receive primary stress, such as Go. *þan*, OE *þan* 'then'.

Final /t d/ were lost after short vowels not under primary stress and after all long vowels, as in Gothic 3 sg. pres. *wili*, OE *wile*, OHG *wili* 'he wishes' < **welit*; cf. Lat. *velit*. Also Go. *undarō* 'beneath' < **-ōþ*; cf. Skt *adharāt* 'from below'. Comparison with the third plural preterite forms Go. *bērun*, OE *bǣron* 'they bore' < *-nt* indicates that *-þ-* < *-t* was lost later than *-n*, for *-n* was maintained in the third plural ending. Yet the change was early, for remaining long vowels like the *-ō* in Gothic were treated like other long finals. Final /t d/ were however maintained after short stressed vowels, as in ON *þat*, OE *ðæt*, OHG *daz*, cf. Skt *tad*.

Final open short vowels, PGmc *e a*, were lost except under primary stress, as illustrated by the first and third singular preterite of Go. *wait*, ON *veit*, OE *wāt*, OHG *weiz* 'I know, he knows', cf. Gk *oîda, oîde*, Skt *véda*.

Still other reductions and losses took place in the individual dialects.

2.9. Morphonology

The morphonology of Proto-Germanic vowels is best understood by reviewing the situation in Proto-Indo-European, which has been more closely maintained in Germanic than in any of the other dialects.

The basic situation is indicated in the vowels. It is assumed that the basic vowel of roots was /e/. In Proto-Indo-European one exchange was brought about by the change of /e/ to /o/, as in the root *leg-*, with reflexes like those of Gk *légō* 'read' and *lógos* 'word'. For this and other vocalic changes, Jacob Grimm introduced the term *Ablaut* 'sound away from'; it is often referred to by the translated term *apophony*. The term is used both for the original change and for its results in the dialects. The various vowels are referred to as *grades* (a translation of the German *Stufe*) in the ablaut system, e.g. *e-grade*, *o-grade*, etc.

Attempts have been made to account for this change, including explanation by position of the accent, by association with other elements like the resonants, and so on. None have been widely accepted. The change occurred so early, possibly even in late Pre-Indo-European, that the cause may be totally obscure. What is important, especially for Germanic, is the association of /e/ with reflexes of active forms of verbs and /o/ with reflexes of stative forms, as noted more fully below in the treatment of the verb system.

A later set of changes took place when Proto-Indo-European had a stress accent. At this time the basic vowel /e/ was lost when it was unstressed; this situation is referred to as

zero grade. Reflexes of the loss in the root **sed-* are found NE *nest*, Lat. *nīdus* from PIE *ní-zd-os* 'in (which a bird) sits' and Go. *asts*, NHG *Ast* 'branch' from PIE *ó-zd-os* 'on (which a bird) sits'. Complementary to zero grade is lengthened grade, in which the vowel is either *ē* or *ō*. The basis for the lengthening is unclear, although attempts have been made to ascribe it to loss of a vowel in the following syllable as a result of the accent on the lengthened vowel. It is found in specific forms, such as the nominative singular of monosyllables, e.g. Skt *vāk*, Latin *vōx* in contrast with Gk *épos* < PIE *wék*^{w}*os* 'word', or of nouns of a certain structure, such as Skt *pitā́*, Gk *patḗr* 'father'.

Sound changes, losses, and analogical changes between Proto-Indo-European and the dialects have obscured further the bases of the original ablaut situation. Yet enough ablaut relationships are evident, especially in Germanic, that knowledge of ablaut is highly important for understanding the phonological relationships between related forms like Go. *sitan*, 3 sg. pret. *sat*, and the causative *ga-satjan* 'set, place', OE *nest*, Go. 3 pl. pret. *sētun*, and OE *sōt* 'soot' as well as those among many other such related forms. The reflexes of PIE *sed-* given here illustrate the five grades: normal grade, deflected or *o*-grade, zero grade, lengthened-*ē* grade, and lengthened *ō*-grade.

2.9.1. Ablaut and the Laryngeals

Understanding of ablaut relationships was long unclear because laryngeals and their reflexes were not recognized. Even when Saussure (1877) posited the vanished consonants that came to be called laryngeals, their reflexes were not properly understood. Yet a difference was recognized between vowels involved in ablaut, such as those reflected in *sētun* and *sōt*, and those called "original long vowels," as in the widely evident roots PIE *dhē-* 'place' and *dō-* 'give' through their different morphological uses. But even after Kurylowicz (1927) determined that some of the forms with original long vowels correspond to Hittite cognates with vowel plus *h*, such as *pa-ah-sa-an-zi*, Latin *pāscō* 'protect', it took some time before the interrelationships among such reflexes was understood.

It is now clear that the structure of the "original long vowels" in Proto-Indo-European *dhē-*, *dō-*, *stā-*, etc. before the laryngeals were lost or combined with other phonological elements was comparable to that of the vowels and final consonants of roots like PIE *sed* 'sit', *sew* 'rain', *sey* 'bind'. The roots with such long vowels were then reconstructed with laryngeals; instead of PIE *dhē-*, the root was given as *dheʔ-* 'place', instead of *dō-*, as *deɣ-* 'give', instead of *(s)tā-*, as *(s)teχ-* 'stand'. This clarification also led to understanding of the use of these roots with normal grade in the present tense forms of Greek as *títhēmi*, *dídōmi*, *hístāmi*, as well as their distribution in other dialects including Germanic.

2.9.2. Germanic Morphonology as Exemplified in the Verb System

2.9.2a. Vocalic Variation

Reflexes of Proto-Indo-European morphonology in Germanic may be exemplified by examining the verb system of strong verbs. Seven classes have been traditionally proposed, with the infinitive, preterite singular, preterite plural and past participle given as principal parts. These indicate the specific ablaut grades that were generalized in forms of the system that distinguishes a present tense, a preterite tense, and a past

participle as well as indicative and subjunctive forms, and an imperative as well as distinctions of number and person.

It is further necessary to note the background of the distinction between the present and the preterite forms. In Proto-Indo-European the etymon of the present system of the first five classes indicated *action*, while the etymon of the preterite indicated *state*. As PIE dialects became accusative languages, the aspectual meanings were replaced by tense. But maintenance of the aspectual meanings in early Proto-Germanic led to the distinction between the first five classes and the sixth as well as the seventh. As Prokosch recognized (1939:150-151, 173-182), even before Active languages were understood, many roots and bases of the verbs of the sixth and seventh classes indicated state; their basic forms were accordingly taken as preterites in Proto-Germanic rather than as presents, for which a form with another grade was introduced.

In addition to this distinction into two groups by their meaning, the first five classes fall into two groups in accordance with their form. Those of the first three classes have bases with the vocalism *e* + a resonant (*y, w, m, n, l, r*) + a consonant, while those of the fourth and fifth have bases with *e* followed by a single consonant. An example from the fourth and fifth classes illustrates the ablaut grades in the principal parts. The forms will be more fully exemplified and treated in the section on strong verbs in the morphology.

	Infin. (present)	**Pret. Sg.**	**Pret. Pl.**	**Past Ptc.**
Go.	giban	gaf	gēbum	gibans
ON	gefa	gaf	gǫfom	gefenn
OE	giefan	geaf	gēafon	giefenn
OHG	geban	gab	gābum	gigeban

The reflexes indicate that the normal grade of the root was maintained in the infinitive and the present tense in late Proto-Germanic. The *a* reflecting PIE *o*-grade marked the preterite singular. The preterite plural and optative, on the other hand, are based on the long-*ē* grade, for zero grade would have led to an impossible cluster. To escape this in the past participle, the *e*-grade of the present was introduced.

An example of the first class illustrates that the *e*-grade and the *o*-grade mark the present and preterite singular, as also in the second and third class of the strong verbs; the two other forms have zero grade, reflecting the position of the accent on the final syllable in Proto-Germanic.

Go.	beitan*	bait	-bitum*	-bitans*
ON	bīta	beit	bitom	bitenn
OE	bītan	bāt	bitum	bitans
OHG	bīzan	beiz	bizzum	gibizzan

An example of a sixth class verb illustrates that the base form with PIE *-eH-* > *-ā-* > PGmc *-ō-* was used throughout the preterite, and that an alternate form was introduced for the present and past participle:

Go.	standan	stōþ	stōþum	standans*
ON	standa	stōþ	stōþom	staþenn

OE	standan	stōd	stōdon	standen
OHG	stantan	stuo[n]t	stuo[n]tum	gistantan

2.9.2b. Consonantal Variation

Morphophonemic change is also found with consonants, as in the preterite of strong verbs. Before the accent was fixed, it fell on the root in the singular, but on the ending in the plural and optative. The second singular preterite in the West Germanic languages also shows the effect of the accent on the ending as in the plural. In keeping with the position of the accent, verbs have an *f/v, s/z > r, þ/d, h/g* interchange; the basis of the interchange may be illustrated by comparing the forms of the PIE base *gew-s-* in the Sanskrit perfect of its reflex *joṣ-* 'enjoy' and the Old English preterite of *cēosan* 'choose'.

	Sanskrit perfect	**Old English preterite**
1 sg.	jujóṣa	cēas
2 sg.	jujóṣitha	(cure)
3 sg.	jujóṣa	cēas
1 pl.	jujuṣimá	curon
2 pl.	jujuṣá	curon
3 pl.	jujuṣúr	curon

The interchange may be assumed for Proto-Germanic before the initial stress accent on the root syllable was introduced; its effects were maintained into the dialects.

Examples of the preterite third singular and third plural forms of verbs with the four fricatives may illustrate the morphophonemic variation, as well as analogical regularization in some forms which are indicated below in italics.

	f/b	**þ/d**	**s/z**	**h/g**
Go.	þarf : þaúrbum	-laiþ : -liþom	kaus* : -kusun	-tauh : tauhun
ON	þarf : þurfom	leiþ : liþon	kaus : køron	----- : toginn
OE	þearf : þurfon	lāð : lidon	kōs : kurun	tēah : tugon
OS	tharf : thurbun	lēth : lidun	kōs : kurun	tēh : tugun
OHG	darf : durfun	leid : litum	kōs : kurum	zōh : zugun

Further examples will be given in the treatment of the verb.

The same variation is found between forms of the causative and the simple verb, for the causative had its accent after the stem, as illustrated by Skt *vártate* 'turn' and *vartáyate* 'cause to turn'; cf. Go. *fra-waírþan* 'spoil' and *fra-wardjan* 'cause to spoil'; OHG *ginesan* 'be saved' and *nerian* 'save'.

Similarly, the variation is found in nominal forms, as in the Gothic adjective *alþeis* 'old' in contrast with the noun *alds* 'age'; *taíhun* 'ten' in contrast with *-tigjus* 'decade'. This led to the further distinction in modern English *ten* based on the Old English noun *tīen* and the suffix for the decade *-tig* > *-ty*.

The loss of nasals with compensatory lengthening led to a different type of change in OE *bringan : brōhte*, OHG *bringan : brāhta* 'bring, brought' where the loss of the nasal

before the voiceless fricative in the preterite led to the lengthening of the preceding vowel.

The changes presented here illustrate the increasingly compact structure of words as opposed to distinct syllables in late Proto-Germanic, as is evident in the Runic name *Hlewagastiz* versus Old Norse *Hliugast*. They also demonstrate the effect of the fixation of dynamic accent on initial and root syllables as opposed to the earlier pitch accent, leading to weakening and loss of final elements in the dialects. Still other changes are introduced from dialect to dialect, leading to diverse modifications of their phonological and morphological systems.

2.10. The Conservatism of the Germanic Phonological System

As the sections above indicate, the phonological system of Germanic was highly conservative. The threefold relationship among the obstruents was maintained, while in Indic it was expanded to four, e.g. *t th d dh*, but reduced to two in Hittite, e.g. *t d*, or modified in other ways, as in Latin, e.g. *t d f*. The articulation of the threefold elements was however modified in Germanic, so that in the nineteenth century and later a large-scale change has been assumed. The assumption was based on phonetic criteria. From a phonemic point of view the obstruent system was maintained in early Germanic in contrast with the modifications in Indic, Hittite, Latin and other dialects. Similarly, the resonant and the vocalic systems were largely maintained for some time, and phonological developments like Gothic *ddj, ggw* indicate long retention of laryngeals. Only later, when pitch accent was replaced by stress, did extensive modifications take place in Germanic. At that time, some members of the fricative set were voiced, leading to a considerably different system.

The stress accent, located as it was on the base — often the initial syllable — had a strong effect on the vowels of syllables with weaker stress. Some of these were lost, as will be noted in the chapter on inflectional morphology; others were eventually reduced to schwa. In the course of time, the phonological structure of late Proto-Germanic and especially its dialects differed greatly from that of Proto-Indo-European.

III. INFLECTIONAL MORPHOLOGY

3.A.1. Introduction on Syntax

For understanding the syntax of Proto-Germanic it is highly important to note that Pre-Indo-European was an Active Language, and that the change to Accusative structure in Proto-Indo-European and its dialects was gradual. Moreover, Germanic separated early from the other Indo-European dialects, as I pointed out in 1953 and as others have since; more traits of Active Language structure were maintained in it than in the dialects that had been assumed to be the most archaic, that is, Indo-Iranian and Greek, on which Brugmann's Indo-European forms were based. While the reconstructions of Brugmann and later Indo-Europeanists have been predominant in subsequent handbooks of the

parent language and also for explaining forms in the dialects, many of them do not apply to Proto-Germanic.

Moreover, the features that Germanic shares with Celtic on the one hand, Italic on the other, and with Balto-Slavic are chiefly lexical and relatively late, such as the adoption of the word for iron from Celtic; these will be discussed in the chapter on semantics. It is also important to note that there are no innovations common to these four dialects, a further indication that Germanic was independent of them in its early phase. Proto-Germanic must accordingly be treated as a stage in the development from Pre-Indo-European through Proto-Indo-European to distinct dialects.

Some characteristics of Active languages are stated here; others will be discussed in the chapters dealing with derivational morphology and with sentence structure. Active languages have three word classes: nouns, verbs, and particles. Nouns and verbs fall into two classes, either active/animate or inactive/stative. Some examples of the earlier active structure have survived throughout the Indo-European dialects in twofold designations for items that may be considered to be either in action or at rest. Among these are the two words for fire. The active word, reflected by Lat. *ignis*, Skt *agnís*, Lith. *ugnìs*, OCS *ognь*, indicated actual burning; its active role is supported by the use of the Sanskrit word also for the god of fire. The word reflected by Hitt. *pahhuwar*, Gk *pûr*, Umb. *pir*, Arm. *hur*, Toch. A *por*, as well as by the Germanic words as maintained by NE *fire*, indicated a state, as supported by its neuter gender. Other examples will be given in the chapter on semantics. When the dialects shifted from active to accusative structure, the reason for maintaining two words was lost, and typically only one was maintained.

As another characteristic of Active languages, sentences are constructed for the most part by pairing active nouns with active verbs and stative nouns with stative verbs, that is, through agreement rather than government. Accordingly, transitivity is not a characteristic and there is no inflection as for an accusative case. Relationships among nouns, also with verbs, are indicated by means of particles; furthermore, there is no distinct "adposition" part of speech.

In the course of time, agreement structure was gradually replaced by government structure in Proto-Indo-European and its dialects. Explanations for such changes are speculative; in my view, the linguistic change resulted from cultural change: as civilization developed, speakers began to understand causal relationships. For example, they began to account for increase in productivity of crops through proper planting, watering, and application of fertilizer, rather than through prayer to a crop deity. To represent such causal effects in the language, specific particles came to be joined to nouns and to verbs, some of which indicated transitivity; these and others provided the bases of inflection. Through accentuation, such groups of base words and particles became units. In time, loss of unaccented syllables and other changes clouded earlier structures, obscuring their origins, but residues are still evident in the dialects as noted below. By means of such events, the shift to government structure can be more readily understood.

Some of the particles remained independent, maintaining their function of indicating relationships of nouns and of verbs, while others were affixed to these (cf. Brugmann, *Gdr*. 1.3/2: 964-1009, Lehmann 2002: 87-99). Examples of reflexes in the Germanic

languages that remained independent are: Go. *ak*, OE *ac* 'but'; OE and OHG *nu* 'now'. Among examples that were suffixed are: Go. *-ei*, a particle suffixed to demonstrative pronouns to produce relative pronouns as in the accusative singular *þan-ei* 'whom, which'; Go. *-u* and *-uh*, a question particle that is placed after words, as in:

Mark 10:38 maguts-u driggkan stikl þanei ik driggka?
can-you-two ? drink cup which I drink
"Can you two drink the cup which I drink?"

Other particles were adapted as prepositions, such as Go. *af* and OE *of* 'of', Go. *bi*, OE and OHG *bī* 'at, around', OHG *zi* 'to', which Hirt equated with the suffix in Gk *oĩkon-de* 'homeward' (Hirt 1932, II: 103).

In addition to the particles that have been maintained as independent forms, some have survived in suffixes and endings. It is assumed that the earliest such suffixes added were the single consonants called determinatives. Because they were added to roots in early Proto-Indo-European, their meanings are for the most part no longer distinguishable. Among examples are forms made from the Proto-Indo-European root **wer-* 'turn, bend', as in the nouns Lat. *vermis*, Go. *waúrms* 'worm' and possibly the Lith. *vérti* 'to bend' (Pokorny 1959:1152-1160). Among forms derived from the root **wer-* with determinatives are: Gk *rémbō* 'turn about in a circle,' Go. *wairpan*, ON *verpa*, OE *weorpan*, OHG *werfen* 'throw < turn' with PIE *-b*-determinative; Skt *vartati* 'turns', Go. *wairþan*, OHG *werden* 'become' with *-t-* determinative. Many such verbs made with determinatives could be cited, e.g. Go. *giutan*, ON *gjóta*, OHG *giozzan* 'pour', made with the *-t-* determinative from the root PIE *g^{h}ew-* as in Gk *khéō* 'I pour'. But a semantic basis for its addition in the two roots and others cannot be identified.

Some particles developed into suffixes consisting of syllables that have survived with specific uses or meanings, such as the *-to-* and *-no-* suffixes on participles. Subsequently, many suffixes were based on full words, for example the widely used NE *-hood*, Du. *-heid*, NHG *-heit* suffix that indicates state or condition, as in *childhood*. The noun also remained independent in the older Germanic dialects, as in Go. *háidus* 'manner', OHG *heit* 'rank, state, condition'.

Besides their adaptations in derivational morphology, particles were also the basis of inflectional endings, such as *-s*, the nominative singular ending as in Go. *dags* 'day'. In his discussion of such developments, Hirt pointed out that Bopp had already equated the *-s* ending with the Proto-Indo-European particle **so* 'here', with reflexes in Skt *sa*, Go. *sa*, Gk *ho*; **so* also became the basis of pronouns (Hirt 1932, II:9; cf. also Hirt 1927, 3:13-14; Lehmann 2002: 148-149). Hirt assumed that **so* was the source of another case ending as well, that of the genitive singular as in Go. *broþrs* 'of the brother'. Then at the conclusion of his treatment he proposed that it was also the source of a derivational *s-* suffix, as maintained in NHG *Fuchs* 'fox', but he did not explain the basis of its development. We assume that, in the active stage of Pre-Indo-European and early Proto-Indo-European, **so* was placed after nouns to indicate the subject and also the agent of reference in genitive constructions; when Proto-Indo-European became an Accusative language, it was attached as an ending, with eventual loss of the *-o*.

Comparable to the *-s* ending that came to indicate relationships for nouns, the *-m* ending that came to indicate first person in verbs has been related to the personal pronoun *m-*

forms. Such combinations became fixed, so that nouns and verbs consisted of roots and endings. Some nominal residues from this period consisting only of root and ending survive among common words; they are referred to as root nouns (Brugmann 1906, II.1:130-146). PGmc *fōts*, Gk *pōs*, Lat. *pēs*, Skt *pad-* < PIE *ped-* is among the few nominal examples; PGmc *ist*, Lat. *est* < PIE *?es-t-* is a verbal example. But most nouns and verbs have an additional suffix between the root or base and the ending, among them even reflexes of root nouns. While a reflex of PGmc *fōts* is maintained in OE *fōt* 'foot' without the subject marker, the Gothic cognate was an expanded *u*-stem noun, *fotus*. A reason for adding such suffixes may be illustrated by noting Latin verb forms: the common verb *fer-* < PIE *b^{h}er-* has as second and third singular forms *fers, fert*. If these endings were added directly to most Latin verb roots, e.g. *laudare* in the first conjugation and *habēre* in the second, the forms would be **lauds, *laudt* and **habs, *habt*, or more likely modified forms of them in view of the final consonant combinations. The inclusion of the suffixes *-ā/a-* and *-ē/e-* in these conjugations between the root and the endings, as in Lat. *laudās, laudat* 'praises', *habēs, habet* 'has', yielded transparent stems and endings.

The most frequent such suffix added to nouns and to verbs, PIE *-e/o-*, is not associated with any meaning. Its wide application may be understood when forms like those cited above are compared; endings may no longer be modified, as are those added directly, such as Lat. *es*, Gk *eîs* < PIE *es-si* 'thou art'. Already in Proto-Indo-European, most nouns and verbs included such affixes when inflected, whether simple vowels like *-e/o-*, *-i-*, *-u-*, or longer suffixes like *-yo-*, *-wo-*, *-no-*. Nominal and verbal inflections were labeled by them on the basis of the Indo-European form of the suffix, e.g. *o*-stems, *yo*-stems, etc. Eventually many of them became indistinct, especially in dialects that, like Germanic, introduced a strong stress accent on roots which led to weakening or loss of final syllables.

3.A.2. Inflectional Morphology; Classes of Words

The Proto-Germanic lexicon consists of two classes of inflected words and a number of uninflected classes. The two inflected classes are *substantives* and *verbs*. The uninflected classes are *conjunctions*, *adverbs*, *interjections*, and *prepositions* (earlier, *postpositions*).

Substantives, including nouns, pronouns, adjectives and numerals, are inflected primarily for case, secondarily for gender and number. The sub-class of *nouns* is inflected for case, gender and number. The sub-class of *pronouns* is inflected for case, but only defectively for number and gender as well as person. The sub-class of *adjectives* is inflected for gender, as well as for case and number; it is further distinguished by addition of suffixes to indicate comparison. *Cardinal numerals* have defective inflection in all three categories. *Ordinal numerals* are inflected like adjectives, e.g. Go. *þridja* as *n*-stem for the numeral 'third'.

Verbs are inflected for person and number, tense, mood and voice.

3.1. Inflection of Substantives.

Five cases are reconstructed for Proto-Germanic, with traces of a sixth; these are: nominative, vocative, genitive, dative, accusative, and instrumental. The *nominative* is

the case used to indicate the subject, and never follows a preposition. The *vocative* is the case of address. The *genitive* indicates relationships among substantives, often possession. In addition to being governed by specific prepositions, the *dative* indicates the indirect object; the *accusative*, the direct object. The *instrumental* case has a distinct form in only one paradigm; it indicates a relationship involving means, similar to that of adverbs. Two further cases are reconstructed for Proto-Indo-European: the *locative*, which according to some specialists has left reflexes in certain Germanic paradigms, and the *ablative*, to which certain Germanic adverbs have been related.

There are three genders: *masculine*, *feminine*, and *neuter*. These categories are primarily grammatical, although there is also relationship to sex. That distinction is found largely with nouns referring to animate beings, as in Go. *niþjis* 'male relative', *niþjō* 'female relative'; *frijōnds* 'friend', *frijōndi* 'woman friend'; ON *Freyr* 'the god Frey', *Freyja* 'the goddess'. Gender distinction is also found in the third person pronouns.

Substantives are inflected for three numbers: *singular*, *plural*, and *dual*. The dual is strongly represented only in pronouns and in PGmc was losing ground there. Like gender, number is also primarily a grammatical category, not always a category with literal meaning, as the following examples from Old Saxon indicate:

- OS *to godes hūsun* (pl.) 'to the house of God'
- OS *uuas im helpono* (pl.) *tharf* 'he needed help'
- OS *briost* (pl.) 'breast'
- OS *giscapu* (pl.) 'fate'

With the exception of gender, the categories of inflection were less distinct in Proto-Germanic than in Proto-Indo-European and were reduced further in the dialects, where some of them were ultimately lost, such as gender in English with covert usage persisting primarily in the use of personal pronoun 'he, she, it'. Similarly, except in the personal pronouns only two cases remain in English, the genitive and the unmarked case. Further, the category of number is overt only in the noun, in a few verb forms like *am*, *is* in contrast with *are*, and in the indication of person in the third singular present, e.g. *writes* as opposed to *write* in the plural and other categories.

Inflection is indicated through the suffixes known as *endings*. As noted above, in Proto-Indo-European and early Proto-Germanic the endings were suffixed directly to roots. But affixes were added to roots already in Proto-Indo-European to form bases, also known as stems, and the endings were attached to these. When the stress accent was introduced, it generally fell on the root; weakly stressed syllables then were often reduced, so that the endings in Proto-Germanic and its dialects consisted of merged suffixes and the early endings. Classes of inflections in late Proto-Germanic were labeled by these. Three declensions then resulted:

1. Root nouns (which are poorly attested);
2. Consonant stems;
3. Vocalic stems in two sets: the *o/ā* stems, and the vocalic resonant stems.

Reconstructed forms illustrating each of the noun classes are given in paradigms below. Reflexes in the dialects are included, to provide evidence for the Proto-Germanic forms that have been reconstructed. In the paradigms of the dialects attested forms are

preferred. But our limited texts do not provide us with complete inflections for most nouns; accordingly some unattested forms are included without being starred, such as the Gothic nominative *dags*.

3.2. Inflection of Nouns

3.2.1. The Root Nouns

By the time of the Germanic dialects some of the endings had been lost, as in the nominative and accusative Old English forms of 'foot'. Others were replaced, such as that in the Gothic nominative singular *fotus* by *u*-stem endings. Old English and Old Norse have maintained enough of the inflection in some words, such as the word for 'foot', to reconstruct it for Proto-Germanic. In Old Norse, however, the genitive singular is based on that of the *u*-stems; in Old English it is based on that of the *o*-stems.

The endings of root nouns:

Sing.	**PIE**	**PGmc**	**Plur.**	**PIE**	**PGmc**
Nom.	-s	-s	Nom.	-es	-ez
Gen.	-es	-ez	Gen.	-ōm	-ōn
Dat.	-ey/-y	-i	Dat.	-mis	-miz
Acc.	-m	-un	Acc.	-ns	-unz

The forms of the word for foot:

Sing.	**PGmc**	**ON**	**OE**	**Plur.**	**PGmc**	**ON**	**OE**
Nom.	fōts	fōtr	fōt	Nom.	fōtez	fœtr	fēt
Gen.	fōtez	fōtar	fōtes	Gen.	fōtōn	fōta	fōta
Dat.	fōti	fœte	fēt	Dat.	fōtmiz	fōtum	fōtum
Acc.	fōtun	fōt	fōt	Acc.	fōtunz	fœtr	fēt

The inflection of the noun for fire, an Indo-European *r/n*-stem, is of interest in showing that the paradigm was maintained in early Proto-Germanic, but then modified by analogy. Only the nominative/accusative singular forms are given for Old Norse and the West Germanic languages because the two other cases have adopted forms from the *o*-stems. In the Gothic nominative singular the *-n* has been extended by analogy with the genitive and dative.

Sing.	**PGmc**	**Go.**	**ON**		**OE**	**OHG**
Nom/Acc.	fōr/fuir	fōn	fūrr, funi	fyȳrr,	fy ȳr	fiur
Gen.	funis	funins				
Dat.	funi	funin				

3.2.2. The Consonant Stems

In the consonant stems a suffix ending in a consonant was added to the root. The most prominent of these suffixes was *-en*. This varied from *-en-* to *-n-* to *-on-* in accordance with the accent. Moreover, some of the nouns to which it was added ended in a vowel,

so that the variants *-ēn-* and *-ōn-* arose; if these stood finally in a word, the *-n* was lost, leading to a great variety of endings. Such phonological variation in a paradigm is open to analogical modification so that it is difficult to reconstruct the original paradigm. According to Meillet this is best reflected in Gothic as illustrated in its forms for 'ox', most of which are reconstructed (1937:301ff.). To illustrate the regularization in the dialects, examples of forms of the Greek words for 'male' and 'stone' are given here; one vowel has been generalized in these.

	PIE ending	**Gothic 'ox'**	**Greek 'male'**	**Greek 'stone'**
Nom.sg.	-ōn	auhsa*	ársēn	ákmōn
Dat.sg.	-en-i	auhsin*	árseni	ákmoni
Nom.pl.	-on-es	auhsans*	ársenes	ákmones
Gen.pl.	-n-	auhsne	arsénōn	akmónōn

3.2.3. The *n*- stems

To illustrate the inflection for masculine nouns a complete set of forms of the word for *man* is given here with the endings reconstructed for Proto-Indo-European. The Nom/Acc. forms for the neuter nouns are given below; their genitive and dative forms are like those of the masculine nouns.

The forms show instances of analogical regularization, as discussed in the notes.

Masculine	**PIE**	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	-ēn,-ō	gumō	guma	gume	guma	gomo
Gen.sg.	-en-os	gumenaz	gumins	guma	guman	gomen
Dat.sg.	-en-i	gumeni	gumin	guma	guman	gomon
Acc.sg.	-on-m	gumanun	guman	guma	guman	gomon
Nom.pl.	-on-es	gumaniz	gumans	gumar	guman	gomon
Gen.pl.	-n-ōm	gumanōn	gumanē	guma	gumena	gomōno
Dat.pl.	(-on-mis)	gumanmiz	gumam	gumom	gumum	gomōm
Acc.pl.	(-ns)	gumanunz	gumans	guma	guman	gomon

Neuter	**PIE**	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom/Acc.sg.	-ō	augō	áugō	auga	ēage	ouga
Nom/Acc.pl.	-ōn-ā	augōnō	áugōna	augo	ēagan	ougon

Except for the genitive plural ending *-ē*, the Gothic forms support those reconstructed for Proto-Germanic. (It may be useful to note here again that *e* and *o* in Gothic indicate long vowels so that a macron is superfluous, though often added in this grammar to be explicit; the Gothic short vowel counterparts are indicated by *ai* and *au*, often distinguished from the *ái* and *áu* diphthongs by an acute accent on the second member, e.g. *aí aú*.)

Many of the forms in the other dialects show the results of analogical extension. In the singular the Old Norse and Old English genitive and dative forms were taken over from the accusative. In the nominative/accusative plural the Old High German *-o-* of the

ending is generalized from the singular. The Old Norse nominative plural ending is based on that of the *o*-stems, as is also the accusative plural ending. In the other dialects the form of the nominative was generalized to the accusative. In the genitive plural the Old English and Old High German forms were taken over from the feminine, as was the dative plural in Old High German.

The Proto-Germanic forms of the feminine are reconstructed largely on the basis of those in Gothic. In the other dialects the forms influenced one another; some were introduced from other inflections.

Feminine	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	tungōn	tuggō	tunga	tunga	zunga
Gen.sg.	tungōn(i)z	tuggōns	tungo	tungan	zungūn
Dat.sg.	tungōni	tuggōn	tungo	tungan	zungūn
Acc.sg.	tungōnun	tuggōn	tungo	tungan	zungūn
Nom.pl.	tungōniz	tuggōns	tungor	tungan	zungūn
Gen.pl.	tungōnom	tuggōnō	tungna	tungena	zungōno
Dat.pl.	tungomm(iz)	tuggōm	tungom	tungum	zungōm
Acc.pl.	tungōnz	tuggōns	tungor	tungan	zungūn

In the oblique cases the endings of the masculine may be compared with those of the feminine; except for the characteristic long stem vowel in the feminines, the two inflections are identical. In Old Norse the influence of the two inflections is reciprocal. Various explanations have been offered for the *ū*- vowel in the Old High German forms; by one of them it was introduced from the accusative singular in which the vowel resulted from *u*-modification, so that the Proto-Germanic accusative singular ending developed from *-ōnum* to *-ūnum* > *-ūnu* > *-ūn*. It then was taken over for the other cases in the singular and for the accusative plural.

3.2.4. The *r*- stems

In Proto-Indo-European the form of the stem in the *r*-stems varied considerably. With the strong tendency to regularization in Germanic, the variation gradually was eliminated; but regularization apparently was incomplete in Proto-Germanic: from the differing paradigms in the individual dialects, it seems that the process must have continued after the time of Proto-Germanic. Explanation of the individual forms is therefore problematic in the treatment of the dialects. The word *atta* has replaced the inherited word for father in Gothic except for one instance of the vocative form, *fadar*, so the word for brother is given here.

	PGmc	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	faðēr	brōþar	faþer	fæder	fater
Gen.sg.	faðrez	brōþrs	fǫþur	fæder(es)	fater(es)
Dat.sg.	faðer(i)	brōþr	feþr	fæder	fater(e)
Acc.sg.	faðerun	brōþar	fǫþur	fæder	fater
Nom.pl.	fað(e)riz	brōþrjus	feþr	fæderas	fatera
Gen.pl.	faðrōn	brōþrē	feþra	fædera	fatero
Dat.pl.	faðrumis	brōþrum	feþrum	fæderum	faterum

Acc.pl.	faðruns	brōþruns	feþr	fæderas	fatera

In the Gothic plural the nominative has adopted the *u*-stem ending, as have the dative and accusative, with *-u-* in the dative probably on the pattern of the accusative. In Old Norse the base vowel of the nominative plural was extended to the three other forms. The Old English and Old High German forms illustrate how endings of the *o*-stems were extended to other paradigms.

3.2.5. The *nt*- stems

A small number of nouns with the same suffix as that of the present participle preserved their autonomy in Proto-Germanic. The changes in base vowel in Old English provide evidence for the earlier inflection. In ON *frændi* 'relative' the back vowel of the nominative-accusative plural has been generalized to the other cases. The singular endings have been replaced by forms of the *n*-inflection; in Old English and Old High German the endings have been taken over from the *o*-stems as have the Gothic nominative and genitive singular, as well as the genitive and dative plural.

	PGmc	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	frijund	frijōnds	frændi	frēond	friunt
Gen.sg.	frijundiza	frijōndis	frænda	frēondes	friuntes
Dat.sg.	frijundi	frijōnd	frænda	frīend	friunte
Acc.sg.	frijundun	frijōnd	frænda	frēond	friunt
Nom.pl.	frijundiz	frijōnds	frændr	frīend	friunt
Gen.pl.	frijundōn	frijōndē	frænda	frēonda	friunto
Dat.pl.	frijundmiz	frijōndam	frændom	frēondum	friuntum
Acc.pl.	frijundunz	frijōnds	frændr	frīend	friunt

3.2.6. The *s*- stems

The *s*-inflection has been maintained even less distinctly than have the other consonantal declensions; it is chiefly of interest as a source of the prominent noun plural ending *-er* in Old High German and in the later language. While the stem suffix is attested in a few oblique singular forms in Old High German, one of them *chalbire* 'to the calf', the singular endings were in general replaced by those of the *e/o*-inflection, as also in Old English.

	PGmc	**OE**	**OHG**
Nom/Acc.sg.	lambaz	lamb	lamb
Gen.sg.	lambezaz	lambes	lambes
Dat.sg.	lambizi	lambe	lambe
Nom/Acc.pl.	lambazō	lombru	lembir
Gen.pl.	lambizōn	lombra	lembiro
Dat.pl.	lambizumiz	lombrum	lembirum

3.3. The Vowel Stems

In the vowel stems the endings were attached to specific vowels or to suffixes ending in vowels. In these declensions the forms developed distinctive endings. The resultant

forms became the most prominent in the Germanic dialects. In masculine and neuter nouns the vowel was *e/o*; in the feminine nouns the vowel was *ā* in Proto-Indo-European. These have come to be used in the labels for the declensions concerned. Besides being suffixed to the roots of nouns, these vowels were also combined with resonants, to yield the suffixes *-ye/o-*, *-yā-* and *-we/o-*, *-wā-*. These came to have distinctive inflections in keeping with the allophonic variation of the resonants, e.g. [i y iy].

3.3.1. The *o*- stems

Masculine	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	dagaz	dags	dagr	dag	tag
Gen.sg.	dagaza	dagis	dags	dages	tages
Dat.sg.	dagai	daga	dege	dæge	tage
Acc.sg.	dagan	dag	dag	dag	tag
Nom.pl.	dagōzez	dagōs	dagar	dagas	taga
Gen.pl.	dagōm	dagē	daga	daga	tago
Dat.pl.	dagamaz	dagam	dǫgom	dagum	tagum
Acc.pl.	daganz	dagans	daga	dagas	taga

Neuter	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom/Acc.sg.	wordan	waúrd	orð	word	wort
Nom/Acc.pl.	wordō	waúrda	orð	word	wort

The full reflex of the Proto-Germanic nominative singular ending is found in Runic inscriptions, e.g. Krogstad *stainaz* 'stone', and of the accusative singular, as in the form *staina* from the Tune inscription.

The genitive singular ending of the *o*-stems was *-sa*. It was added to both stem-vowels *-a-* and *-e-*. The *-asa* form has reflexes in the general North Germanic form, as in the Valsfjorden example *godagas*, and also in Old Saxon, e.g. *dagas*. The *-esa* form has reflexes in Gothic, and in the other West Germanic forms.

The dative form has the ending *-i*; PGmc *-ai* > *-a* in Gothic and *-e* in the other dialects. The accusative form underwent regular development.

In Old High German and Old Saxon some forms in *-u* are attested that are considered relic forms of the instrumental; the ending is derived from PIE *-ō*.

The nominative plural forms in Gothic, Old Norse, and Old High German are regular reflexes of the Proto-Germanic form. The Old English and Old Saxon forms on the other hand must have been derived from a longer form, such as PGmc *-ōzez*, which is parallel to the Vedic extended plural *-āsas*. By another explanation, the Germanic form may have arisen independently as a double plural like that in *children*.

The genitive plural forms reflect PIE *-o-om* > *-ōm* except for that of Gothic with *-ēm*. Numerous explanations have been proposed for *-ēm*, as from other PIE forms than genitives, but since the form occurs in Gothic alone it must have an explanation from

patterning there. I assume it was a spontaneous change in which the front vowel *ē* was introduced in contrast with the back vowel of the nominative (Lehmann 1968).

The dative plural forms must be derived from the Proto-Indo-European instrumental ending *-mis* in view of the forms of the personal names *Vatvims* and *Aflims* recorded in inscriptions and Runic, e.g. Stentoften dat. pl. *hagestumz* 'stallions'.

The accusative plural forms in Gothic, Old Norse, and Old High German are direct reflexes of PIE *-ons*; the Old English form is based on the nominative.

The nominative/accusative neuter has the same origin as the accusative singular masculine; the *-a* is preserved in Gallehus *horna*. Similarly, the nominative/accusative plural has the same origin as the nominative singular feminine, i.e. PIE *-ā* > PGmc *-ō*. In North Germanic it developed first to *-u*, as indicated in the form *bǫrn* < **barnu*; it was also maintained in the West Germanic dialects after short syllables, as in OE *hofu*. The genitive and dative neuter forms are like those of masculine nouns. The neuter genitive and dative forms are like those of masculine nouns.

3.3.2. The *ā*- stems

The suffix of the *ā*-stems developed in early Indo-European from *-e/o-* followed by a laryngeal. Initially, then, their inflection was like that of the *e/o*-stems, since the laryngeal consonant was comparable to others like *s*. As the laryngeal that modified vowels, it changed the preceding vowel to *a*, e.g. *ah*□ > *ā*. The combination of the contracted *ā* with the endings led to considerable differences, as the following illustrate.

	PGmc	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	gebō	giba	gjǫf	giefu	geba
Gen.sg.	gebōz	gibōs	gjafar	giefe	gebā
Dat.sg.	gebāy	gibái	gjǫf	giefe	gebu
Acc.sg.	gebōn	giba	gjǫf	giefe	geba
Nom.pl.	gebōz	gibōs	gjafar	giefa	gebā
Gen.pl.	gebōn	gibō	gjafa	giefa	gebōno
Dat.pl.	gebōmiz	gibōm	gjǫfom	giefum	gebōm
Acc.pl.	gebōz	gibōs	gjafar	giefa	gebā

As these examples may indicate, most of the forms of this declension underwent regular changes in the dialects, though some forms within the declension were replaced, such as the Old Norse and Old English dative singular; the Old High German genitive singular was replaced by analogy with the Old High German accusative. In West Germanic, *-u* was lost after long syllables, as in OE *ār* 'honor'. The expected ending *-u* was preserved in the Opedal Runic form *liubu* 'dear'.

Other forms were replaced by those of another inflection. The Old Norse inflection introduced *i*-stem forms in the nominative and accusative plural *gjafar*. The Old High German genitive plural was taken over from the *n*-stems.

3.3.3. The *yo*- and *yā*- stems

The two suffixes were frequent in Proto-Indo-European and Proto-Germanic and did not lead to separate declensions until the allophonic system of the resonants broke down and the resultant phonemes underwent separate developments. Distinct declensions resulted, not only for the nouns ending in these suffixes as opposed to those ending in *-o/ā-*, but also for nouns with short as opposed to long stem syllables; /y/ would have had the allophone [y] after short stem syllables, [iy] after long. The paradigms illustrate the developments.

Masculine nouns with long stem vowels and *-iyo-*; PGmc *herdiyas* 'shepherd'

Long Stem	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	herdiyas	haírdeis	hirðer	hierde	hirti
Gen.sg.	herdiyeza	haírdeis	hirðes	hierdes	hirtes
Dat.sg.	herdiyai	haírdja	hirðe	hierde	hirte
Acc.sg.	herdiyam	haírdi	hirðe	hierde	hirti
Nom.pl.	herdiyōzez	haírdjōs	hirðar	hierdas	hirte/-â
Gen.pl.	herdiyōm	haírdjē	hirða	hierda	hirt(e)o
Dat.pl.	herdiyamiz	haírdjam	hirðom	hierdum	hirtum
Acc.pl.	herdiyanz	haírdjans	hirða	hierdas	hirte/-a

Masculine nouns with short stem vowels and *-yo-*; PGmc *heryaz* 'army'

Short Stem	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	heryaz	harjis	herr	here	heri (Neut.)
Gen.sg.	haryeza	harjis	herz	herijes	heries
Dat.sg.	haryai	harja	her	herije	herie
Acc.sg.	haryam	hari	her	here	heri
Nom.pl.	haryoz	harjos	hariar	herijas	heris
Gen.pl.	haryom	harje	heria	herija	herio
Dat.pl.	haryamiz	harjam	heriom	herijum	herium
Acc.pl.	haryanz	harjans	haria	herijas	heris

The difference between nouns with long and short stems is most clearly evident in the genitive singular forms. Upon the loss of the final vowel, the *-e-* before *-s* became *-i-*, yielding *-iyis*, *-yis*. In *-iyis* the *-y-* was lost, and the *-ii-* fell together with *-ī-*, as indicated by Gothic *-ei-*. In the short stems, *-yis* was maintained.

These inflections are also of interest in indicating the effects of analogy as sound changes disrupt the original alignments. In Gothic the nominative singular form *harjis* was remodeled on the form of the genitive after the pattern of the long stems. In Old High German the nominative singular form was probably taken over from the accusative. By the ninth century the *-j-* was lost; except for the mutated stem vowel and the nominative singular, the forms agreed with those of the *o*-stems.

3.3.4. The *wo-* and *wā-* stems

By the time of the dialects, these stems had merged with the *-o/ā*-stems. Old Norse stem vowels, however, illustrate the modifying effect of the suffix consonant, e.g. *hǫrr* < PGmc *harwas* 'flax'. Although subsequent sound changes and analogical modifications

have given rise to complex paradigms, the Proto-Germanic inflections can be reconstructed with allophonic variations of *-w-* parallel to those of *-y-*. Proto-Germanic forms for *harwas* are given here; after long bases, the suffix would have been *-uw-*.

PGmc	**Singular**	**Plural**
Nom.	harwaz	harwōz
Gen.	harweza	harwōm
Dat.	harwai	harwamiz
Acc.	harwam	harwanz

3.3.5. The *i-* and *u-* stems

The *-i-* and *-u-* stems are comparable to the *-o-* stems, with *-i-* and *-u-* occupying the place of *-o-*. Their combinations with other vowels, however, led to differences. If the principal accent came to stand on the stem-vowel, the syllables would have had the shape *-ey-* in Proto-Indo-European; in this way the nominative plural differed from that of the *o*-stems, and is reconstructed as *-ey-es*. The suffix could also have *o*-grade, as in the feminine genitive singular, reconstructed as *-oy-so-*. The dative singular was taken over from the *o*-stems in Gothic.

***i*-stems**	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	gastis/z	gasts	gestr	gæst	gast
Gen.sg.	gastez	gastis	gests	gæstes	gastes
Dat.sg.	gastai	gasta	gest	gæste	gaste
Acc.sg.	gastin	gast	gest	gæst	gast
Nom.pl.	gastiyiz	gasteis	gester	gæstas	gesti
Gen.pl.	gastiyōn	gastē	gesta	gæsta	gestio
Dat.pl.	gastimz	gastim	gestom	gæstum	gestim
Acc.pl.	gastinz	gastins	geste	gæstas	gesti

The full reflex of the Proto-Germanic nominative ending is found only in Runic inscriptions, e.g. Gallehus *hlewagastiz*. In Old High German the stem vowel was lost after long stems before modification of the base vowel, so that the singular does not have umlaut. The feminine survives in a few forms, but in general it has merged either with the masculine or with other declensions.

***u*-stems**	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	sunuz	sunus	sunu	sunu	sun(u)
Gen.sg.	sunauz	sunáus	suna	suna	sunes
Dat.sg.	sunāu	sunáu	suna	suna	sune
Acc.sg.	sunun	sunu	sun	sunu	sun(u)
Inst.sg.	suniway				suniu
Nom.pl.	suniwiz	sunjus	suna	suna	suni
Gen.pl.	suniwōn	suniwē	suna	suna	suneo
Dat.pl.	sunumiz	sunum	sunum	sunum	sunim
Acc.pl.	sununz	sununs	suna	suna	suni

In the Tomstad Runic inscription the full ending of the nominative singular was maintained in *waruz* 'protection', and the accusative singular in the Kjølevig inscription form *magu* 'kinsman'. The singular endings are as expected, though the Old English dative is taken over from the genitive. The vocative singular, which survives in Gothic, has the same form as the accusative singular. The plural forms are also as expected, though with influences among them; the Old High German nominative has been taken over in the accusative, which, however, is still reflected in the form *situ* 'custom' in *Otfrid*.

Forms of neuter *u*-stems are found only in the singular in Gothic, e.g. nominative *faíhu*, genitive *faíháus*, dative *faíháu* 'cattle'; cf. also *filu* 'much'. In the other dialects they have fallen together with other declensions, or survive in relic forms.

3.3.6. Development of Noun Inflection in Proto-Germanic

The forms given above indicate the general course of development of noun inflection in Proto-Germanic: whereas in the early period the endings clearly distinguished the various cases, after the stress accent was introduced the endings were weakened and some were lost. As one result, the root noun inflection was virtually eliminated.

But as endings were lost, markers for case and number evolved from what were originally derivational suffixes. New inflections developed from these, such as the *ye/yo*-stems and especially the *n*-stems. Loss also contributed to a reduction of case forms. Evidence for the vocative survived only in Gothic and for the instrumental in a few paradigms, so these forms must have been reduced in use by late Proto-Germanic. While some scholars have assumed that the locative was the basis of many Proto-Germanic dative forms, it is more likely, in accordance with Meillet (1964:294), that a zero-grade form of the dative was the basis of these, so that the locative need not be recognized for Germanic generally. Similarly, the ablative need not be recognized on the basis of the few adverbial forms that have been accounted for as reflexes of it; the adverbial endings may have been independent of the ablative case, as supported by semantic evidence.

The changes in inflection of nouns were paralleled by those in pronouns, although these were more conservative in the retention of inherited categories. Both of these influenced the inflection of adjectives, as will be noted below.

3.4. Inflection of Pronouns

From comparison of the forms in the various Indo-European dialects, it is obvious that in early Proto-Indo-European there was no pronominal inflection paradigm, but instead a series of forms. For example, the base changes from the nominative to that of oblique forms, e.g. *I* vs. *me*, and what is more, the form of some of the most frequent pronouns, e.g. that for *I*, varies from dialect to dialect, cf. Skt *ahám*, Gk *égō*. Further, as a complete paradigm of demonstratives was introduced, the base selected varied from dialect to dialect; for example, the bases in Germanic differ from those in Italic. As a result of the relatively recent emergence of pronominal inflection in Indo-European, etyma are reconstructed here in Proto-Germanic for the pronouns actually attested, rather than on the basis of reconstructions in Proto-Indo-European.

It is instructive to recall the structural reasons for the infrequency of pronouns in early Proto-Indo-European; most important of these is the indication of subjects by verbal endings in the early language. When verb forms no longer distinguished subjects unambiguously, as when the first and third singular preterite indicative merged, pronouns came to be used more frequently. Similarly, as the affixes marking nominal cases merged, agreement was indicated by pronouns, and subsequently also by pronominal adjectives, which developed full inflections in the individual Indo-European dialects.

Moreover, the development of a strongly structured paradigm of the noun led to a similar paradigm for pronouns, in which various particles were added, such as *ge* in Greek *(e)mége* and Proto-Germanic *mek(e)* in the accusative, and by the "freezing" of a form in the genitive of personal pronouns, and so on.

The non-paradigmatic set of pronouns in Indo-European can be understood most readily from scrutiny of the Hittite pronoun, which was largely clitic. Although pronouns in Germanic maintain traces of their former clitic uses, in that they generally occupy positions in the sentence that do not carry primary stress, they may also be fully stressed. By the time copious material in the dialects becomes available, pronouns are among the most frequent forms, with fully developed paradigms; the forms reconstructed here for Proto-Germanic are based on these, even though they may be relatively recent, having become regularized as the pronominal paradigms emerged.

3.4.1. Personal Pronouns

Personal pronouns are those without a noun as antecedent, as a consequence of which they lack gender. A full inflection, including dual forms, existed for first and second person; in addition the third person had three singular forms, used as reflexives, also for first and second person.

First Person Pronouns

1st Person	PGmc	Go.	ON	OE	OHG
Nom.sg.	eka	ik	ek	ic	ih
Gen.sg.	mīnō	meina	mīn	mīn	mīn
Dat.sg.	miza	mis	mēr	mē	mir
Acc.sg.	mike	mik	mik	mec, mē	mih
Nom.pl.	weys	weis	vēr	wē	wir
Gen.pl.	unserō	unsera	vār	ūser, ūre	unsēr
Dat.pl.	uns	uns(is)	oss	ūs	uns
Acc.pl.	uns	uns(is)	oss	ūs(ic)	unsih
Nom.du.	wet	wit	vit	wit	
Gen.du.	unkerō	ugkara	okkar	uncer	unker
Dat.du.	unke	ugkis	okkr	unc	
Acc.du.	unke	ugk(is)	okkr	unc(it)	

The nominative singular posited is probably a reflex of PIE *egom*. In Runic inscriptions, besides the simple form *ek*, variants are attested, as in *hate-ka* 'my name is' (Lindholm) and *haite-ga* (Kragehul). The Kragehul form may be related to the Indo-European form

with *-gh*, cf. Skt *ahám*. The Germanic variation in vowel reflects forms with primary stress, ON *ek*, and those with lesser degrees of it, OE *ic*.

The genitive singular form is based on the possessive adjective extended by a suffix, the source of which is unclear. In the dative singular PIE *me* was extended by a suffix that cannot be determined with assurance, possibly *-so* as in Umbrian *seso*. As noted above the accusative forms are reflexes of PIE *me* to which a particle *-ge* was added. Old English *mē* is taken over from the dative.

The nominative plural is based on PIE *wey-*, cf. Skt *vay-ám* 'we', to which the plural suffix was added in Germanic. In the genitive plural of the dialects other than Old Norse, the adjectival suffix *-ero-* was added to the base *ns-*, and the final *-o* was lengthened in parallel to that of the genitive singular. In Old Norse the suffix was added to the nominative base *we(y)-*. The different forms indicate the lateness of the formation. In the dative and accusative plurals, *-is* was extended from the dative in Gothic to the reflex of PIE *ns-*, cf. Skt *nas*, and *-ih* from the accusative in Old English and Old High German. These forms are instructive in indicating how Germanic pronominal forms were expanded.

The nominative dual form is based on PIE *wed*; similar reflexes are found in OCS *vě* and Lith. *vèdu* 'both of us'. Forms of the dual are not attested in Old High German, apart from one isolated instance, but reflexes of them survive in the contemporary Bavarian second plural: nominative *os*, genitive *enker*, accusative *enk*. The genitive dual has the same affix as the genitive plural. The dative and accusative dual endings were extended in Gothic and Old Norse by that of the dative plural.

Second Person Pronouns

The second singular forms are remarkably parallel to those of the first singular in development. Only the forms with special change will be discussed.

2nd Person	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Nom.sg.	þū	þū	þū	þū	dū, du
Gen.sg.	þīn	þeina	þīn	þīn	dīn
Dat.sg.	þeza	þus	þēr	þē	dir
Acc.sg.	þeke	þuk	þik	þe(c)	dih
Nom.pl.	yūs	jus	ēr	gē, gīe	ir
Gen.pl.	izwerō	izwara	yð(u)ar	ēower	iuwēr
Dat.pl.	(w)izwiz	izwis	yðr	ēow	iu
Acc.pl.	(w)izwiz	izwis	yðr	ēow(ic)	iuwih
Nom.du.	yut	jut	it	git	
Gen.du.	inkerō	igqara	ykkar	incer	
Dat.du.	inke	igqis	ykkr	inc	
Acc.du.	inke	igqis	ykkr	inc(it)	

In the accusative singular the *-ge* particle was added to *te*, as in the first person; in Gothic the vowel of the nominative was extended to the accusative.

For the nominative plural compare Avestan *yūs*, Lith. *jũs*. The vowel was modified after that of the first person in the dialects other than Gothic. In the dative and accusative plural forms PGmc *wiz* < PIE *wes* was reduplicated, possibly to distinguish it from the first person plural nominative. The initial *w* was lost by dissimilation, with **iRwiR* > **iðwiR* > *yþr* in Old Norse. In pre-Old English and Old High German **izwis* > **iwis* and thereupon the forms attested.

In the dual, the vowel of the nominative was modified after that of the first person pronoun in the dialects other than Gothic, while the oblique cases have the same suffixes as the first person pronouns.

The Reflexives

As in the other Indo-European dialects, the reflexive was used for all numbers and genders in the third person. It was not maintained, however, in Old English. For the first and second person, forms of the personal pronoun were employed, e.g. *mik*. For the third person PIE *se-* was extended with the endings of the first and second singular pronouns. The accusative was taken over for the dative in Old High German.

	PGmc	**Go.**	**ON**	**OHG**
Gen.	sīnō	seina	sīn	sīn
Dat.	sezo	sis	sēr	sih
Acc.	seke	sik	sik	sih

3.4.2. Demonstrative Pronouns

The most widespread demonstratives as well as definite articles in the Indo-European dialects are based on **so-/to-*. Forms from **so-* occur only in the masculine and feminine nominative singular; forms from **to-*, elsewhere. These roots were originally sentence connectives, as application of their reflexes in Hittite and to some extent in Sanskrit show. In late Proto-Indo-European and early Proto-Germanic, endings were added to them and their forms were modified by analogy, especially in the Germanic dialects.

The demonstrative constructed on Proto-Germanic **sa-, *þa-*

	PIE	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Masc.Nom.sg.	so	sa	sa	sā	sē	der
Masc.Gen.sg.	teso	þeza	þis	þess	þæs	des
Masc.Dat.sg.	tosmai	þam(m)ē/ō	þamma	þeim	þǣm	demu
Masc.Acc.sg.	tam	þan(ōn)	þana	þann	þone	den
Masc.Nom.pl.	toy	þay	þái	þeir	þā	dē, die
Masc.Gen.pl.	toyzōm	þayzōn	þizē	þeira	þǣra	dero
Masc.Dat.pl.	toymiz	þaymiz	þáim	þeim	þǣm	dēm
Masc.Acc.pl.	tonz	þanz	þans	þā	þā	dē, die
Neut.Nom/Acc.sg.	tod	þatō(m)	þata	þat	þæt	daz

Inst. (or Dat.) Sg.	tei	þ(i)ē/ō	þē	Dat. þvī, þī	Dat. þỹ	diu
Neut.Nom/Acc.pl.	tā	þō	þō	þau	þā	diu
Fem.Nom.sg.	sā	sō	sō	sū	sēo	diu
Fem.Gen.sg.	tesās	þezōz	þizōs	þeirar	þǣre	dera
Fem.Dat.sg.	tesāy	þezay	þizái	þeire	þǣre	deru
Fem.Acc.sg.	þō(n)	þō	þō	þā	þā	dea, dia
Fem.Nom.pl.	tās	þōs	þōs	þǣr	þā	deo
Fem.Gen.pl.	tesōm	þezōn	þizō	þeira	þǣra	dero
Fem.Dat.pl.	toymiz	þaymiz	þáim	þaim	þæm	dēm
Fem.Acc.pl.	tās	þōs	þōs	þǣr	þā	deo

The Proto-Germanic forms are fairly transparent; many are direct reflexes of the Proto-Indo-European forms. Some have modifications, like the masculine accusative singular, but the principal modifications have been in the dialects. Regularization is most obvious in the Old High German forms. These details must be left to the treatments of the individual dialects.

3.4.3. Demonstratives with Further Extensions; Relative Pronouns

In keeping with the archaic position of Proto-Germanic, particles were appended to demonstratives to create relative pronouns, although different dialects used different particles in this role. In Gothic a particle *-h, -uh* was added throughout the paradigm, yielding *sah, sōh, þatuh*, etc. Although the source of the *-u* is unclear, *-h* is derived from PIE $k^{w}e$, which is reflected in Latin as *-que*, where it is found in compound pronouns, e.g. *quisque* 'whoever'. The Old Norse paradigm *sia, siā, þetta* comprises several such extensions; the form *siā* illustrates one extension, *-a*, subsequently lengthened, presumably the same particle as that in Gothic *þana* < PGmc *þanōn*.

In Old Norse and the West Germanic dialects, the particle *-se* yielded the most widespread compound, with the two components clearly evident in Runic *sasi, susi, þatsi* where only the first component is inflected. The second (*-se*) component is also found in Lat. *ipse* 'this, he'. As in Latin, the Germanic *-se* component eventually came to be inflected. The early form **þe-se* is reflected in OE nom.sg.masc. *þes*, but the oblique case forms *þisses, þissum, þisne* show final inflections. Detailed analysis of the development of this compound to the widely used *this* of English, *dieser* of German, and so on, is a concern of the individual dialects.

The relative pronoun in Gothic also shows compounding with the particle *-ei* added to the demonstrative, as in *saei* 'which, that'. The particles *es* and *at* are used to indicate the relative pronoun in Old Norse; in the West Germanic dialects, on the other hand, reflexes of PIE *te/o-* are the basis of the relative pronoun, e.g. OE *þe*, OS *the*, OHG *the, de, thie*. These illustrate further that various particles were used in Proto-Germanic to indicate demonstrative and relative reference, so that no specific pronouns can be reconstructed for the early language for these categories.

3.4.4. The Anaphoric Pronoun

A demonstrative based on various pronominal stems that is less emphatic than forms based on Proto-Germanic *so* is found in the dialects. In Gothic and Old High German this is *es, er* in the nominative singular masculine, in contrast with OE *he*, OS *he*, ON *hann*. Due to such diversity, a complete paradigm cannot be reconstructed for Proto-Germanic; instead, forms from various roots were selected, and complete paradigms were constructed in the dialects around one or more of these, with endings in general taken from the **so* paradigm. The roots are:

- PIE *ei-, i-*; cf. Lat. *is* 'he', Go. *is*
- PIE *sye-, syā-*; cf. Skt *sya, syā* 'that', OHG *sie*
- PIE *to-*; cf. Gk *tó*, ON *þat, þeir*

PIE *ke/o-* (cf. Oscan *e-kas* 'these') was extended by *-eno-*, producing **hēno*, from which ON *hana* and its paradigm developed. As the variety illustrates, a paradigm cannot be reconstructed for Proto-Germanic, but instead a number of pronominal forms were in anaphoric use.

3.4.5. The Interrogative Pronoun

Forms based on the stem PIE *kʷo-, kʷey-* are found throughout the Indo-European dialects for the singular, although there are no distinct forms for the feminine. The forms in the Germanic dialects have undergone considerable modification, by analogy with forms of demonstratives. Moreover, Gothic includes the feminine forms nominative & accusative *hʷo*, dative *hʷizai*, which are probably patterned on the demonstrative *sa* rather than on reflexes of Proto-Indo-European *kʷā*. These attest further to the regularizing of paradigms in the individual dialects. The masculine (animate) and neuter forms are as follows:

	PIE	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
Masc.Nom.	kʷos	χwas	hʷas	(huerr)	hwā	hwer
Masc.Gen.	kʷeso	χweza	hʷis	hues	hwæs	hwes
Masc.Dat.	kʷosmai	χwammē	hʷamma	hweim	hwǣm	hwemu
Masc.Acc.	kʷom	χwana	hʷana		hwone	hwenan
Masc.Inst.	kʷē/kʷey	χwē/χwī	hʷē		hwī, hwȳ	hwiu
Neut.Nom/Acc.	kʷod	hwat	hʷa	huat	hwæt	hwaz
Neut.Dat.				hwī		

In the nominative, the Gothic form is a regular reflex of the Proto-Indo-European form, as are the neuter forms. In the Old English form the final consonant is lost, with subsequent lengthening of the final vowel; in the Old High German form the vowel of the oblique cases has been introduced. In Old Norse a compound form has been introduced. The forms of the other cases are patterned after those of the demonstrative except in the instrumental and the Old Norse dative.

As in the demonstrative, various compound forms of interrogatives are attested. In Gothic and Old Norse a compound interrogative is based on the interrogative particle Go. *hʷar*, ON *huar* 'where' plus a reflex of PGmc *-yos*, e.g. Go. *hʷarjis*, ON *huerr* 'who'; it is inflected like a strong adjective. The form *huerr* has replaced the simple interrogative in the Old Norse nominative.

Reflexes of PGmc *hwe/a-ter-* are found in all the dialects. The West Germanic forms are based on the *-e-* form, OE *hweðer*, OHG *hwedar* 'which of two'; the forms in the other dialects are based on the *-a-* form, Go. *hʷaþar*, ON *huaþarr*. A reflex of the *kʷo-* form is also attested in OE *hwæþer*, suggesting that in the other dialects one form was generalized throughout the paradigm.

Reflexes of a compound with PGmc *līko-* 'body' as second component are attested through all the dialects, but with varying first elements: PIE *kʷi* in Go. *hʷileiks*, OE *hwilc*; PIE *kʷey-* in ON *hvīlīkr*; PIE *kʷo-* in OE *hwelc*, OHG *hwelih*. The vowel in question resulted from regularization in the dialects.

In addition, various indefinites derived from interrogatives, e.g. Go. *hʷazuh* 'each', OE *ǣghwā* 'each', OHG *etewer* 'someone', vary from dialect to dialect, hence a common Proto-Germanic etymon cannot be reconstructed.

3.5. Inflection of Adjectives

One of the characteristics of Germanic is the development of two adjectival inflections: one preserves the inflections assumed for late Proto-Indo-European; the other is a new inflection based on *n*-stems. As one of their uses in the proto-language, *n*-stems referred to specific individuals, as in Latin personal names like *Catō, Catōnis* literally 'the wise one'. The *n*-inflection of adjectives, called "weak" by Jacob Grimm in contrast with the inherited inflection called "strong," indicated a specific item in accordance with the Proto-Indo-European meaning, much as the definite articles did later.

3.5.1. The Strong Inflection of Adjectives

It is assumed that adjectives were originally inflected like nouns in Proto-Indo-European; the reflex of this inflection in Germanic is the strong declension. Both have the same stems, consonantal and *-i-, -o-, -u-* as well as *-yo-*. But as adjectives were frequently used in conjunction with demonstrative pronouns, some inflections were taken over from these. It is unclear how many of the endings were so modified in early Germanic. When all the dialects agree on a pronominal ending, as in the genitive, dative and accusative singular masculine, as well as in the plural forms and the nominative/accusative singular neuter, they may have been inherited from the parent language. In the feminine Gothic is more conservative, maintaining noun endings except in the genitive singular, and the genitive and dative plural.

The following inflection of **halbs* 'half' may be assumed for late Proto-Germanic, with reflexes in the dialects.

	PGmc	**Go.**	**ON**	**OE**	**OHG**

Masc.Nom.sg.	halbaz	halbs	halfr	healf	halb
Masc.Gen.sg.	halbas	halbis	halfs	healfes	halbes
Masc.Dat.sg.	halbazmai	halbamma	hölbom	healfum	halbemu
Masc.Acc.sg.	halbanōm	halbana	halfan	healbne	halban
Masc.Nom.pl.	halbay	halbái	halber	healbe	halbe
Masc.Gen.pl.	halbaysam	halbáizē	halbra	healbra	halbero
Masc.Dat.pl.	halbaymis	halbáim	hölbom	halbum	halbēm
Masc.Acc.pl.	halbanz	halbans	halba	halbe	halbe
Neut.Nom.sg.	halbatam	halb(ata)	halbt	healf	halb
Neut.Nom/Acc.pl.	halbā	halba	hölb	halfu	halbu
Fem.Nom.sg.	halbō	halba	hōlb	halbu	halb
Fem.Gen.sg.	halbaizōs	halbáizōs	halbrar	halbre	halberu
Fem.Dat.sg.	halbāy	halbái	halbre	halbre	halberu
Fem.Acc.sg.	halbon	halba	halba	halbe	halba
Fem.Nom.pl.	halbōz	halbōs	halbar	halba, -e	halbo
Fem.Gen.pl.	halbaizō	halbáizō	halbra	halbra	halbero
Fem.Dat.pl.	halbaimiz	halbaim	hǫlbom	halbum	halbēm
Fem.Acc.pl.	halbōz	halbōs	halbar	halba, -e	halbo

3.5.2. The Weak Inflection of Adjectives

The basis of the endings was presented in section 3.3.2 above.

The *n*-stems

	PGmc	**Go.**	**ON**	**OE**	**OHG**
Masc.Nom.sg.	halbō	halba	halbe	halba	halbo
Masc.Gen.sg.	halbenaz	halbins	halba	halban	halben
Masc.Dat.sg.	halbeni	halbin	halba	halban	halben
Masc.Acc.sg.	halbonun	halban	halba	halban	halbon
Masc.Nom.pl.	halbaniz	halbans	hǫlbu	halban	halbon
Masc.Gen.pl.	halbanōm	halbanē	hǫlba	halbena	halbōno
Masc.Dat.pl.	halbammiz	halbam	hǫlbom	halbum	halbōm
Masc.Acc.pl.	halbunz	halbans	hǫlbu	halban	halbon
Neut.Nom/Acc.sg.	halbō	halbō	halba	halbe	halba
Neut.Nom/Acc.pl.	halbōnō	halbōna	hǫlbo	halban	halbun
Fem.Nom.sg.	halbōn	halbō	halba	halbe	halba
Fem.Gen.sg.	halbōn(i)z	halbōns	hǫlbo	halban	halbūn
Fem.Dat.sg.	halbōni	halbōn	hǫlbo	halban	halbūn
Fem.Acc.sg.	halbōnum	halbōn	hǫlbo	halban	halbūn
Fem.Nom.pl.	halbōniz	halbōns	hǫlbu	halban	halban
Fem.Gen.pl.	halbōnam	halbōnō	hǫlbu	halbena	halbōno
Fem.Dat.pl.	halbamm(iz)	halbōm	hǫlbom	halbum	halbōm
Fem.Acc.pl.	halbōnz	halbōns	hǫlbo	halban	halbūn

3.5.3. The Comparison of Adjectives

Adjectives are also inflected in comparative and superlative degrees. The formations are treated in derivational morphology, section 4.8

3.6. The Numerals

The first three cardinal numerals are inflected; the cardinals are listed in section 6.6.1. The ordinal numerals are inflected in the weak declension.

3.7. Inflection of Verbs

3.7.1. Origin of the Tense System

As noted above, verbs are inflected for tense, mood, number, and person. They also have nominal forms, the infinitive and participles. Four forms of the bases are listed as the principal parts, as illustrated here by the Old High German forms of the verb 'to see': infinitive *sehan*, preterite 1/3 singular *sah*, preterite 1 plural *sāhum*, past participle *gisehan*. From these, presumably all forms of the verb can be identified or produced.

There are two major classes of verbs, as determined by their inflection for tense. The class in which the inflections for tense are indicated by a change of vowel in the base is called "strong," after a term introduced by Jacob Grimm; *sehan, sah* is an example. The other class, where differences of tense are indicated by a dental suffix, is called "weak," also after Grimm; because the same base is used throughout the preterite, only three principal parts are given, as for OE *legan, legde, gilegd* 'lay'. Both classes are inflected in two moods, indicative and subjunctive, which are distinguished by endings, as are also singular and plural number, first, second and third person. Verbs also have an imperative, and medio-passive forms have survived in the present of Gothic. Paradigms for these are given below.

In previous grammars the inflections have been related to those of Sanskrit, Greek, and Latin, as by Prokosch (1939:147-159). Since the discovery of Hittite, on the other hand, it has become clear that the Germanic inflections are continuations of the pattern in Proto-Indo-European; the more complex inflections in Sanskrit, Greek and Latin, on the other hand, are later developments in these dialects.

The Germanic verb system was formed when the early language still maintained characteristics of Active language structure. Active languages distinguish three classes of verbs: active/animate, stative/inanimate, and a small class of involuntary or impersonal verbs. Characteristic verbs of these classes were pointed out in 1897 by Delbrück, but he did not associate them with an earlier structural type (*Gdr*. 4:178-213, 417-478). Among active verbs he listed those for 'eat', 'bite', 'creep'; among stative verbs he listed those indicating joy, sorrow, satisfaction (cf. Lehmann 1993:218-223, 2002:77-81). The small class has three subsets: verbs referring to natural phenomena like raining; verbs referring to psychological states or conditions, like being disgusted; verbs referring to necessity, obligation or capability, like 'it is necessary'. Moreover, lacking a verb for 'have', the meaning was expressed in the proto-language with the pronoun in the dative and the third singular of the verb 'to be', as in Latin *mihi est* 'to me is = I have'.

When the tense system was introduced, the two large classes were combined to make up the Germanic conjugation, in which the preterite originally indicated a state, as do the Hittite preterite and originally the Greek and Sanskrit perfect. The impersonal verbs were the basis of the preterite-presents, so named because they arose from preterite forms but came to have present meaning.

3.7.2. The Strong Verb System

The arrangements of the strong verbs in seven classes reflect the earlier distinction. In verbs of the first five classes, the present tense forms are continuations of active inflection in accordance with their active/animate meanings, e.g. Class I Go. *steigan* 'climb', Class II *kiusan* 'choose', Class III *hilpan* 'help', Class IV *niman* 'take, accept', Class V *lisan* 'read'; the preterite is based at least in part on the perfect of Proto-Indo-European, which indicated state as the result of completed action.

Unlike the first five strong verb classes, the sixth and seventh have the base form in the preterite. The evidence for this arrangement in the sixth and seventh classes was recognized by Prokosch (1939:150-151), following Brugmann and Wood, but was not explained. The basis is now clear. Many verbs of these two classes indicate a state rather than action, e.g. *standan* 'stand', *haitan* 'call, be called'. Their meanings then corresponded to that of the early Indo-European stative, and accordingly their base form was used to make the Germanic preterite rather than the present, e.g. PIE *stā-*, Go. *stōþ* 'stood', PIE *kēyd-*, OE *hēt* 'was called'; they then formed a new present tense form, as illustrated with the infinitives above.

This explanation receives support from the weak preterite, which was based on the addition of a **dh*-suffix that indicated state (Lehmann 1943). It receives additional support from verbs that maintained the inflection of the perfect (stative) but shifted their meaning, such as Gk *oîda*, Go. *wait* 'I know' from the base **weid-* 'see'; rather than retention as preterite of the root, the form shifted in meaning from 'I have seen' to 'I know'. Further discussion is included below, as in treatment of the sixth and seventh classes of the strong verbs.

3.7.2.1 The First Five Classes of Strong Verbs

The five classes are traditionally labeled by the vocalism of their bases. The first class has a base vowel *-ei-* plus a consonant, as in the principal parts of the Gothic verb *steigan, staig, stigum, stigans* 'climb'. The second class has a base vowel *-eu-* (Gothic *i* < *e*) plus a consonant, as in the principal parts of the Gothic verb *kiusan, kaus, kusum, kusans* 'choose'. The third class has a base vowel *-e-* and one of the resonants *l, m, n, r* plus a consonant, as in the principal parts of the Gothic verb *hilpan, halp, hulpum, hulpans* 'help'. The fourth class has a base vowel *-e-* followed by one of the resonants, as in the principal parts of the Gothic verb *stilan, stal, stēlum, stulans* 'steal'. The fifth class has a base vowel *-e-* followed by one of the other consonants, as in the principal parts of the Gothic verb *lisan, las, lēsum, lisans* 'read'.

3.7.2.2 The Sixth and Seventh Classes of Strong Verbs

The original verbs of the sixth and seventh classes have, as noted above, the base form in the preterite because their meaning was stative. Since new forms were created for the present, and these vary, they must be noted individually. The forms of the seventh class

verbs have many special problems. The base form in verbs of the sixth class is parallel to that of the fourth and fifth classes, but the vowel was long, consisting originally of *-e-* plus a laryngeal, as in the base given as PIE *stā-* < *stex-* 'stand', cf. Gk *hístāmi, hístēmi*. In Germanic this was followed by **nt* > *nd* and *þ*, as in the principal parts of the Gothic verb *standan, stōþ, stōþum standans*. The base form in most of the verbs of the seventh class is parallel to that of the first three classes, again with long vowel, as in the principal parts of the Old High German verbs *heizan, hiaz, hiazum, giheizan* 'call', *loufan, lief, liefum, giloufan* 'leap', and *rātan, riet, rieten, giratan* 'advise'.

3.7.3. The Four Classes of Weak Verbs

The four classes of weak verbs are distinguished by their suffixes, and also by their meaning. Class 1 has a *-ja-* suffix based on PIE *-éye/o-* with *-a-* from PIE *-o-* in the root, as in PGmc lag*jan* 'lay' in contrast with PGmc *ligan* 'lie'; as in this verb they have causative or factitive meaning. While many in this class are based on verbal roots, others are based on nominals, such as *hailjan* 'heal'. Class 2 has a suffix based on *-ō-* from PIE *-ā-* as in *salbōn* 'anoint' and are chiefly denominatives; cf. OHG *salfs* 'a salve'. Class 3 has an *-ái-* suffix, as illustrated by the Go. preterite *habáida* (cf. the infinitive *haban*) and OHG *habēta*, though not in the other dialects, as in OE *hæfde* 'had'. Class 4 has a *-nō-* suffix based on PIE *-nā-*, as in Go. *waknōda*, with a shortened form in ON *vaknaþe* 'wakened'; the vowel was also weakened in the present, as in Go. *wakna*, ON *vakna* 'I waken'. Verbs of the class have inchoative or middle meaning.

3.8. The Inflected Forms

The present tense inflected forms may be illustrated by the Proto-Germanic verb *neman*, forms of which are among the best attested in Gothic, including the dual, and also in the other dialects. Gothic forms are listed for comparison:

	Proto-Germanic			**Gothic**		
	Indicative	**Subjunctive**	**Imperative**	**Indicative**	**Subjunctive**	**Imperative**
1 sg.	nemō	nemai		nima	nimáu	
2 sg.	nemes	nemais	nem	nimis	nimáis	nim
3 sg.	nemeþ	nemai	nemadáu	nimiþ	nimái	nimadáu
1 du.	nemōs	nemaiwa		nimōs	nimáiwa	
2 du.	nemats	nemaits	nemats	nimats	nimáits	nimats
1 pl.	nemam	nemaima		nimam	nimáima	
2 pl.	nemeþ	namaiþ	nemiþ	nimiþ	nimáiþ	nimiþ
3 pl.	nemand	nemaina	nemandáu	nimand	nimáina	nimandáu

The forms of the preterite are as follows:

	Proto-Germanic		**Gothic**	
	Indicative	**Subjunctive**	**Indicative**	**Subjunctive**
1 sg.	nam	nēmjai	nam	nēmjáu
2 sg.	namt	nēmīs	namt	nēmeis
3 sg.	nam	nēmi	nam	nēmi

1 du.	nēmu		nēmu	
2 du.	nēmuts	nēmīts	nēmuts	nēmeits
1 pl.	nēmum	nēmīma	nēmum	nēmeima
2 pl.	nēmuþ	nēmīþ	nēmuþ	nēmeiþ
3 pl.	nēmun	nēmīna	nēmun	nēmeina

The forms of the weak verbs are comparable to those of the strong verbs in the present, although the suffixes must be noted. Proto-Germanic examples in the present singular are as follows (with the plural forms being like those of the strong verbs):

	Class 1		**Class 2**	**Class 3**	**Class 4**
1 sg.	lagja	sōkja	salbō	haba	wakna
2 sg.	lagjes	sōkīs	salbōs	habáis	waknēs
3 sg.	lagjeþ	sōkīþ	salbōþ	habáiþ	waknēþ

Singular forms of the weak verb preterite are as follows (with the plural forms being like those of strong verbs):

	Class 1	**Class 2**	**Class 3**	**Class 4**
1 sg.	lagida	salbōda	habáida	waknada
2 sg.	lagidēs	salbōdēs	habáidēs	waknadēs
3 sg.	lagida	salbōda	habáida	waknada

Forms of the passive present have also been attested in Gothic, where the subjunctive endings are based on the innovated *-áu* in the first singular. Only occasional examples are attested in the other dialects.

	Proto-Germanic		**Gothic**	
	Indicative	**Subjunctive**	**Indicative**	**Subjunctive**
1 sg.	lagjada	lagjaidai	lagjada	lagjáidáu
2 sg.	lagjaza	lagjaizai	lagjaza	lagjáizáu
3 sg.	lagjada	lagjaidai	lagjada	lagjáidáu
1-3 pl.	lagjanda	lagjaindai	lagjanda	lagjáindáu

There are three non-finite forms: the infinitive, e.g. *neman*, *lagjan*; the present participle, e.g. *nemands*, *lagjands*; the past participle, e.g. *numans*, *lagiþs*. The present participle is inflected like a weak adjective; the feminine nominative ends in *-ī*, e.g. *nemandī*, *lagjandī*.

3.9. The Preterite-Presents

As noted above, the third class of verbs as developed from the stative stage has preterite forms with present meanings, and in accordance with the emphasis on morphology in the 19th century it was labeled "preterite-present." As with *wáit*, earlier 'I have seen', their basic meaning in the Indo-European perfect was stative but corresponded to an activity in the present rather than in the past. Similarly, PGmc *dars* corresponds to Gk *tharséō* 'I am courageous'; from a meaning corresponding to 'I am in a state of being courageous', the meaning 'I dare' developed.

The preterite-present verbs are inflected like the first six classes of strong verbs. Because the endings are like those of the strong verb preterite, only the first singular and first plural present, and also the first singular preterite and the past participle are given here, listed by classes.

Some of them are found in other Indo-European dialects as well, notably the equivalent of *wáit*: Skt *véda*, Gk *oĩda* 'I know'. These are *o*-grade forms of the Proto-Indo-European base *weid-* 'see'. It is instructive to note that the Lat. *vīdī* 'I have seen' was continued as the regular perfect form of *videō* 'I see'. In Sanskrit, Greek and Germanic, on the other hand, the completed action was treated as a state, and then shifted semantically to 'I know'. The shift in the other verbs is comparable, as is clear from their vocalism. The principal parts of Gothic preterite-present verbs are as follows:

	Pres. Sg.	**Pres. Pl.**	**Pret.**	**Past Ptc.**	**Gloss**
1	wait	witum	wissa	wiss	'know'
	áih	áihum	áihta	áihan	'have'
2	dáug	dugum	duhta		'it suffices'
3	kann	kunnum	kunþa	kunþs	'know'
	ann	unnum	unþa	unnan	'love'
	þarf	þurfum	þaúrfta	þaúrft	'have need of'
	ga-dars	ga-daúrsum	ga-dursta		'dare'
4	skal	skulum	skulda	skuld	'have to'
	man	mumum	munda	mund	'believe'
5	ganah			binaúhts	'is adequate'
6	mag	magum	mahta	maht	'be able'
	ōg	ōgum	ōhta		'fear'
	ga-mōt	mōtum	ga-mōhta		'find'

3.10. The Uses of the Forms

The uses of the indicative tense verb forms are comparable to those in the current Germanic languages, which mark the basic contrast between present time and past time. Present tense forms are also employed to express future time; but compound forms with auxiliaries gradually replace them, for the most part, in the dialects.

There may be some retention of aspect, especially in the preterite forms.

The subjunctive forms are used to indicate uncertainty, as well as in some subordinate clauses. Fuller treatment will be given in the section on the structure of sentences.

The uses of the imperative, the infinitive and the participles are comparable to those in the current languages.

The uses of the nominal forms are comparable to those in the current Germanic languages. As exemplified above, duals are maintained in some inflections; they invariably represent two entities, so that the plurals are less coverable in the relevant paradigms.

IV. DERIVATIONAL MORPHOLOGY

Suffixation was the primary means for producing new forms in Proto-Germanic derivational morphology, as it was in inflectional morphology. Both processes in this way continued the procedures of late Proto-Indo-European. At an early stage of Proto-Indo-European, nouns consisted simply of a root or a base, some of which were maintained in the early dialects. Among examples are reflexes like Skt *pā́t*, Lat. *pēs* 'foot', *vōx* 'voice', *cor* 'heart'. When such nouns were used in sentences, the root or base would often have been modified for phonological reasons. The root for 'foot' is *ped*, as illustrated in the Latin genitive singular *pedis*; the *-d* was elided before the consonantal ending in the nominative. The root for *vōx* is *vōk-*, the noun ending *-s* combined with *-k-* to yield *-x*. The final consonant *-d* of the neuter noun *cord-* 'heart' was lost in the Latin nominative *cor*, as illustrated by the genitive *cordis*. But the root or base of such nouns was maintained if vocalic particles were suffixed to them. In the course of time such suffixes were added to most nouns to produce stems, to which inflectional endings were added.

The most common nominal stems were formed with PIE *-e/o-* and *-ā-*; among others were *i*-stems, *u*-stems, and *n*-stems. The Gothic form for 'foot' is a *u*-stem, *fōtus*; its form for 'heart' is an *n*-stem, *hairtō*, genitive *hairtins*. In these, as well as in the forms of the other Germanic dialects, the base is maintained throughout. The original meanings of such suffixes may be determined only in general; they were obscured as more and more nouns were added to the paradigms of the stems that had been developed. Moreover, the process of deriving further nouns through suffixation was maintained. For example, a noun meaning 'stride' was produced by adding the *-ja-* suffix to **fōt-* in Proto-Germanic, yielding the Old Norse reflex *fet*. Such suffixes will be examined in section 4.2 below.

By another process, many forms in early Proto-Indo-European had been derived through ablaut, modification of the vowel of the base, as in the production of various forms of verbs as well as nouns. The results are referred to as grades: *-o-* as deflected grade of *-e-*, the normal grade; *-ē-* and *-ō-* as lengthened grades; loss of the vowel as zero grade. Gk *hodeĩn* 'sell' < 'set' beside *hézomai* 'sit' illustrates derivation from the root **sed-* by means of *o*-grade; Lat. *sēdō* 'comfort' beside *sedeō* 'sit' illustrates derivation by means of lengthened grade. Nouns were similarly formed with ablaut grades. Beside Greek *hédos* 'seat' with normal grade, Old Irish has an *o*-grade form in *suide* < **sodyom* 'seat' and Germanic has a lengthened grade form in OHG *gisāzi* 'seat'. English *nest* < PIE *ni-zd-os* illustrates derivation by means of zero grade. In Germanic, derived verbs may differ in grade from that of the base, but their primary characteristic is a suffix, as in Go. *satjan* 'cause to sit' beside *sitan* 'sit'. Unlike affixation, vowels change through ablaut was no longer productive in Germanic after the pitch > stress accents had become fixed on the root. While some new forms were produced by analogy with the established ablaut patterns, new nominal and verbal forms were derived in Germanic by affixation, in the early stage by suffixation.

As noted above, the derivational suffixes developed from particles. Many of these were short, such as the *-t* in Go. *mahts*, *mahtis*, OE *meaht*, OHG *maht* 'might'. Others were

somewhat longer, such as the *-ter* in Gk *patḗr*, NHG *Vater* and other kinship terms. Single elements, referred to as *enlargements* or *determinatives*, were attached in an early period, so that it is difficult to determine the meanings they conveyed. Benveniste (1935) did so for the **dh* determinative, however, finding that it indicated state.

The meanings conveyed by suffixes, such as that of the *-en/on-*, are more transparent than are those of the determinatives. The *-en/on-* suffix, as Hirt (1934, 3:188-190) pointed out following Brugmann, indicated 'living beings, specific individuals'. The meaning of specificity was the original basis of the weak declension of adjectives in Germanic, as in Hirt's examples of the German adjective *blind* 'blind': with strong declension, as in *ein blinder Mensch* 'a blind person' and nominalized as in *ein Blinder* 'a blind man', it indicates generally someone who is blind, while with weak declension, as in *der blinde Junge* 'the (specific) blind boy', and nominalized as in *der Blinde* it indicates a distinct individual. On the basis of its reference to individuals, the *n-* suffix also came to be used for names in Latin, such *Rūfō, Rūfōnis* 'Red' versus *rūfus* as the general adjective form for a red object; similarly, the *n*-stem *Catō* is a proper name beside the adjective *catus* 'intelligent'. Because the meaning conveyed by *-en/on-* and that of many other suffixes can be identified, while those of most determinatives cannot, it is assumed that suffixes were added at a relatively late stage of Proto-Indo-European, and the process continued in the dialects.

Suffixes were also added in verbs, as noted above in the four Germanic weak classes: in Class 1 the suffix is *-ja-* from PIE *-yo-*; in Class 2 it is *-ō-*; in Class 3 it is *-ē-*; in Class 4 it is *-na-*. These and their meanings will be treated more fully below. Determinatives were also added, as to the first three classes of strong verbs, e.g. Go. *beitan* 'bite' < PIE *bey + d*, Go. *giutan* 'pour' < PIE *g^{h}ew + d*, Go. *wairþan* 'become' from PIE *wer + t*, and also the verbs of Class 6, as in Go. *standan* 'stand' from PIE *stā + d* and nasal infix in Gothic, and of Class 7, as in Go. *haitan* 'call, be called' from PIE *kēy + d*. Because they were well-established in Proto-Indo-European, many roots plus their determinatives are listed as primary forms, for example, *bheyd* as the basis of Go. *beitan* 'bite'. When on the other hand additions consisted of more than one element, such as the *-ter-* suffix for kinship terms, the Proto-Indo-European forms are treated as the basic words, although the words for 'father' and 'mother' are tentatively derived from the nursery terms *pa* and *ma* with the *-ter-* suffix.

At a still later stage of Indo-European, and in the individual dialects, nouns were affixed. Some of these came to be suffixes. The noun *haidus* 'manner' remained independent in Gothic but is reflected in English as the suffix *-hood*, as in *manhood*, and in German as the suffix *-heit*, as in *Reinheit* 'cleanliness'. Similarly the noun **dōm-* 'condition', which remained independent in Go. *dōms* 'fame, reputation', is reflected in the English suffix *-dom* as in *kingdom*, and in ON *-dómr* as in *jarldómr* 'earldom'. Remarkably, these are not found as suffixes in Gothic; their absence suggests that they were adapted as such only in the later Germanic dialects, but not in East Germanic.

The process of adding nouns that became suffixes is also found with adjectives. For example, the noun *leik* 'body', which remained independent in Gothic, came also to be used as an adjectival suffix, as in Go. *missa-leiks* 'various', cf. the adverb *missō* 'reciprocally', and in ON *mis-līkr*, OE *mis-līc*, OHG *mis-līk* 'various'. It came to be widely used, in NE *-like* and *-ly*, and in NHG *-lich*. As illustrated by the English suffix

-ly, short forms of suffixes continued to develop, but in the contemporary Germanic languages reflexes of full words remain prominent in derivation.

The derivational suffixes are treated further below, as well as those based on full words. Prefixes for nouns and for verbs will then be examined, as well as compounds, and analogous processes in other parts of speech.

4.1. Types of Affixed Nominals by Meaning

When derivational affixes are attached to nominal elements, they often determine the meaning of the new form, and may further create classes that can survive, as for example NE *-hood*, which indicates a meaning of state or situation when used as suffix on nouns such as *boyhood*, *neighborhood*, etc. General classes of this type are found from language to language. In grammars of the Indo-European languages they are given Latin names, e.g. *nomina agentis* and *nomina actionis*. Such classes for the Germanic languages are given here, with examples.

Agent nouns, often referred to by the Latin term *nomina agentis*, indicate individuals, for example ON *vargr* 'wolf, outlaw' and Go. *fiskja* 'fisherman'. They make up a large number of nouns, many of them derived from verbs, cf. Go. *fiskōn* 'to fish'. They also are derived with various suffixes other than the *-e/o-* and *-je/jo-* suffixes of these two words; for instance: PGmc *-eþ/oþ-* as in OE *hæleð* 'hero', the *-ingo/ungo-* suffix in ON *víkingr* 'Viking', the *-(i)lo-* suffix in Runic *erilaR* 'earl', and the suffix also used in the active present participle *-ōnd-* as in Go. *frijōnds* 'friend', as well as several others. Examples of the suffixes for other meaning classes will be given in section 4.2 below.

Action nouns, often referred to by the Latin term *nomina actionis*, indicate activities and their effects, for example Go. *daupeins* 'baptism' and *laþōns* 'invitation'. These are formed primarily from verbs, cf. Go. *daupjan* 'baptize, wash', *laþōn* 'invite'.

A large group of *abstract nouns*, based chiefly on nominal but also verbal elements, such as Go. *reiki* 'realm, authority' based on *reiks* 'ruler', also have forms based on adjectives, such as Go. *managei* 'multitude' from *managṣ* 'many' and *diupiþa* 'depth' from *diups* 'deep'. Those words based on verbs have various suffixes, such as *-þi-* in Go. *gebaurþs* 'birth' from the verb *bairan* 'bear, give birth'.

Collectives were formed with various affixes, especially the prefix *ga-* as in Go. *gafaurds* 'council', a group coming together.

Diminutives were derived using various suffixes, some made with *-l-* as in Go. *barnilō* 'small child', others with *-īna* as in OHG *geizzīn* 'young goat', and still others with widely used suffixes, such as *-chen* and *-lein* of modern German.

Some names of animals were formed with *-k*, as in Go. *ahaks* 'dove' and OE *hafoc* 'hawk'.

Patronymics and names of peoples were based on the suffix *-ing*, such as Go. *Tervingi*, the designation of the West Goths or a group of them.

Words for feminines were derived from masculines by a process called in German *Movierung* 'motion', with the suffixes *-jō-* as in Go. *frijōndi* versus *frijōnds* 'friend' and with *-ōn-* as in Go. *arbjō* beside *arbja* 'heir'.

Adjectives indicating descent were based on *-iska-*, as in OE *denisc* 'Danish'.

Adjectives for materials were based on *-īna-*, as in Go. *gulþeins* 'golden'.

Adjectives indicating colors were based on the suffix *-wa-*, as in OHG *blāo* 'bluish', cf. Lat. *flāvus* 'golden yellow'.

4.2. Forms of Nominal Suffixes

In the derivation of nominal elements, suffixes with dental consonants plus vowels are most prominent, notably those with reflexes of PIE *t*, *n*, and with the resonants *y* (> Germanic *j*), *l* and *r*. Some suffixes are also made with reflexes of Proto-Indo-European *d*, *s*, *k* and *g*, but very few with the labials including *w*. In his Germanic grammar, Grimm (repr. 1878-1898) listed large numbers of the suffixed forms, as have others like Wilmanns (1899). Here the primary attention is given to the processes, and these are illustrated with representative examples, often from only one Germanic dialect.

4.2.1. Derivation with Reflexes of *-t-* and Accompanying Vowels

The *-te/to*, *-tā-* suffixes were characteristically used to derive participial nominals from verbs in Proto-Indo-European. In Germanic they indicate a state resulting from action, as expressed in the root and its verb. Among the forms derived with *-to-* are the noun OHG *haft* m. 'fetter' and the adjective *haft* 'captive' beside *heffan* 'lift', cf. Latin *captus* 'captured'; similarly, OHG *lioht* nt. 'light', adjective *lioht* 'illuminating', cf. Gk *leukós* 'white', Lat. *lux* 'light', both with unshifted *-t-* after *-f-* and *-χ-* > *-h-*. Among examples with *-tā-* are OHG *forhta* f. 'fear' beside the adjective Go. *faurhts* 'fearful'.

The *-ti-* and *-tu-* suffixes were commonly used to form verbal abstracts, *-ti-* for feminines, *-tu-* for masculines, as in Go. *us-wahts* f. 'growth', Go. *wahstus* m. 'stature', beside the verb *wahsjan* 'grow'. Feminine nouns with *-ti-* occur with different ablaut grades in different Gmc dialects as a result of placement of the accent, as in Go. *ansts* f. 'grace, favor', but OHG *ab-unst* 'envy' beside the OHG verb *an, unnan* 'permit'. Moreover, as in *lioht* and *wahstus*, the suffix assumed different forms in accordance with the final consonants of the base; after *f*, *s*, and *h*, the *t* remained unshifted. In some forms the *t* was shifted to *d* in accordance with Verner's Law, e.g. Go. *flōdus* 'stream', OE *flōd* 'flood' beside OE *flōwan* 'overflow'.

When standing after vowels, some Indo-European suffixes also developed as distinct forms that included a vowel, and of these the most frequent reflexes in Germanic are those formed with *-i-* as in Go. *-iþa, -ida*, e.g. *diupiþa* 'depth'. Others are formed with *-ō-* as in Go. *-ōþus*, *-ōdus*, e.g. *gabaúrjōþus* 'pleasure', *áuhjōdus* 'noise'.

A number of nouns exhibit reflexes of PIE *-nt*, for example Go. *frijōnds* 'friend', *fijands* 'enemy'. This suffix was also the basis of the present participle of Go. *friijōn* 'love', i.e. *frijōnd*, and of *fijan* 'hate', i.e. *fijand*; it came to be used for *agent nouns*, as in Go.

allwaldands, ON *allsvaldendi*, OE *ealwealdend*, OHG *alawaltant* 'Almighty, Ruler (of all)'.

Less frequent are derived forms with the extended suffix *-tūti* > Go. *-dūþs*, as in *gamáindūþs* 'fellowship' beside the adjective *gamáins* 'common'.

When following a stem ending in PGmc *-at-*, cf. verbs like Go. *lauhatjan* 'lighten', the suffix *-tu-* combined with it to develop Go. *-assus*, and further, *-inassus*, as in *ufarassus* 'abundance' and *fraujinassus* 'mastery'. The modern German reflex *-nis* of the equivalent Old High German suffix has become very productive, as in NHG *Finsternis* from OHG *finstarnissi*, with different genders reflecting different declensional classes in OHG.

4.2.2. Derivation with Reflexes of *-j-*

The *-jo-* suffix was widely extended for forming *agent nouns*, especially in Old Norse; for example, all the dialects retain PGmc *herd-ija-*, with reflexes in Go. *haírdeis*, ON *hirþer*, OE *hirde*, OS *hirdi*, OHG *hirti* 'shepherd'; compare the related noun OE *heord* 'herd' from PIE *kerdho-*, *kerdhā-* 'herd'. Similarly, PGmc *frau-jo-* has reflexes in Go. *fráuja*, ON *freyr*, OS *frōio* 'lord', and the feminine ON *freyja*, OHG *frouwa* 'lady', as well as the form in the derived verb, Go. *fraujinōn* 'rule over'.

The *-jo-* suffix was also used to produce neuter nouns from verbs to indicate substances, such as PGmc *hawja-* with reflexes in Go. *hawi*, ON *hey*, OE *hīeg*, OHG *hewe, houwe* 'hay' beside the verb **hauwan* 'hew'. Neuter nouns with *-jo-* were also formed with the prefix *ga-*, for example Go. *garūni* 'counsel' beside *rūna* 'plan, secret', OHG *gi-rūni* 'secret'. Others may have been based on nouns, such as Go. *reiki*, ON *rīki*, OE *rīce*, OHG *rīchi* 'realm, authority' beside Go. *reiks* 'ruler'; but cf. also the verb Go. *reikinōn* 'to rule'. The prefix **ga-* was cognate with prefixes in other Indo-European languages that meant 'together with'; retention of this meaning may have been the basis for many collective nouns, especially in OHG, such as *gi-witari* 'storm' beside OHG *wetar* 'weather'; like NHG *Gewitter*, many such nouns survive in German today.

The extended form *-jan-* was used to derive nouns from other nouns or from verbs, for example PGmc *arbija-* with a reflex in Go. *arbja* 'heir'; Run. *arbija*, ON *arfr*, OE *ierfe*, OHG *arbi* 'inheritance', cf. Go. *arbi* 'inheritance'. Others were agent nouns produced in conjunction with verbs, such as Go. *fiskja* 'fisherman' beside *fiskōn* 'to fish'. (An alternative origin might be the noun *fisks* 'fish'.)

In the early period, numerous feminine nouns were based on the *-jē-* form of the suffix that became *-ī-*, such as PGmc *magw-ī-*, Go. *mawi* 'girl' beside *magus*, OE *mēowle* 'little girl'. Others were non-personal, such as Go. *bandi* and *gabindi*, ON *band*, OHG *bant* 'bond, fetter'. Many were based on adjectives with the *-ī(n)-* suffix, such as PGmc *doubīn-*, Go. *dáubei* 'deafness, stubbornness' beside *dáufs* 'deaf, stubborn', and PGmc *gōdīn*, Go. *gōdei* 'virtue', OHG *guotī* 'goodness' beside Go. *gōþs* 'good'.

4.2.3. Derivation with Reflexes of *-n-*

Derivation based on suffixes with *-n-* is prominent in the formation of Germanic nominals; these suffixes appear in many derivations, among them nominal forms of verbs, nouns in the weak declension, verbal abstracts in *-ni*, and diminutives in *-līn*.

Moreover, a few forms in *-na-* became independent nouns, e.g. Go. *barn* 'child' based on the root **bher-* 'bear', and Go. *þegn*, cf. Gk *téknon* 'child' from the root **tek-* 'bear'.

As the strong verb system developed, the suffix in the form *-ana-* was added to the zero grade form of the root to produce the past participle, as in Go. *bitan* 'bitten' from the infinitive *beitan* 'bite', *gutan* 'poured' from the infinitive *giutan* 'pour'.

Similarly, the infinitive was based on the accusative form *-ana-n* from PIE *-ono-m*, as in *binden* 'bind', cf. Skt *bandhana-* '(the act of) binding'.

Examples of nouns in the weak declension are PGmc *uhsno-*, Go. *aúhsa*, gen.pl. *auhsnē*, ON *oxi*, OE *oxa*, OHG *ohso* 'ox' and PGmc *buðen-*, ON *boþa*, OE *bodo*, OHG *boto* 'messenger'.

Many of the feminine nouns in *-ni* were formed from weak verbs, e.g. Go. *dáupeins* 'baptism' from *dáupjan* 'baptize, wash', *laþōns* 'invitation' from *laþōn* 'invite'; a smaller number was made from strong verbs, e.g. Go. *sōkns* 'controversy' from *sakan* 'quarrel'. The extended form *-ini-* was widely used to form feminine nouns beside masculine counterparts, cf. OHG *friuntīn*, NHG *Freundin* '(female) friend' beside *friunt*, *Freund* '(male) friend', OHG *kunigīn*, NHG *Königin* 'queen' beside *kunig*, *König* 'king'.

Compound suffixes based on *-ni-* became highly prominent in the formation of diminutives in High German. OHG and MHG *-līn* was attached to nouns, as in MHG *wörtelīn*, NHG *Wörtlein* 'small word' beside *Wort*. The compound suffix with *-k-*, *-kīn*, developed to *-chen* as in NHG *Mädchen* 'girl' beside *Magd* 'maid', *Söhnchen* 'dear son' beside *Sohn*; it came to be more widely used than *-lein* for dialectal (geographical) and social reasons relating to the development of modern standard German.

4.2.4. Derivation with Reflexes of *-l-*

Suffixes with *-l-* were added to nouns to form agent nouns, instrument nouns and diminutives, as illustrated in the preceding paragraph. Others were used in simple form, as for names, e.g. *Wulfila*. The agent nouns were generally replaced by forms in *-er*, so that few remain in modern German, among them *Krüppel* 'a cripple'.

Many instrument nouns were based on verbs, such as Go. *sitls*, OHG *sezzal*, NHG *Sessel* 'seat' beside the Gothic verb *sitan* 'sit', Go. *stōls*, OHG *Stuol*, NHG *Stuhl* 'chair', NE *stool*, beside the root **stā-* 'stand'. NHG *Deckel* 'cover' is an example from a weak verb, *decken* 'cover'.

Other nouns have no such relationships and may be borrowings, such as OHG *apful* 'apple'. Still others are borrowed from the classical languages, such as Go. *aggilus* from Gk *ággelos*, OHG *engil*, NHG *Engel* 'angel'; cf. also OHG *tiuval*, NHG *Teufel* 'devil', from Lat. *diabolus*.

4.2.5. Derivation with Reflexes of *-r-*

Some nouns were inherited from Indo-European with an *r-* suffix, such as Go. *jer*, OE *gēar*, OHG *jār* 'year', formed on the base **yē/ō-* 'go'. It was also the suffix in the

nominative/accusative of the *r/n* stems, as in OE *wæter*, OHG *wazzar* 'water' based on the root PIE **wed-* 'flow'.

Other nouns were formed with the suffixes *-ro-* and *-rā-*, e.g. OHG *fedara*, NHG *Feder*, NE *feather* based on the root PIE **pet-* 'fly'. The suffixes were further extended with *-t-* as in OHG *wetar* 'weather', cf. the root PIE **wē-* 'blow', and *-st-* as in OHG *bolster* m. 'bolster'. The *-ter* suffix was the basis of the relationship suffix as in Lat. *pater*, Go. *fadar*, NE *father*. In addition many words with *-r-* suffixes were borrowed from the classical languages, e.g. Go. *kaisar*, OHG *keisur* from Lat. *Caesar* and OHG *kupfer* 'copper' from Lat. *cuprum*.

4.2.6. Derivation with Reflexes of Further Suffixes

Six additional suffixes were added to bases, but to relatively few; they then are treated together in this section. One or more characteristic examples are given for each.

Derivations with the *d-* suffix are found especially in Old High German, e.g. *hiruz* from PGmc *herut*, cf. NE *hart* and also Lat. *cervus* 'deer'. Others are found in personal designations, some of which are shortened forms beside names of a general pattern, such as OHG *Winizo* beside *Winifredus* 'friend of peace'.

Some derivations with the *s-* suffix are related to verbs, such as OHG *flahs* 'flax' beside the verb *flehtan* 'weave'. Others are independent nouns, such as OHG *fuhs*, OE *fox* beside Go. *faúhō* m.

Derivations with single velar suffixes are relatively rare, but the combination *-ng* is found with designations for persons, as in OHG *kuning* 'king' beside *kuni* 'race', and also for things, e.g. *pfenning* 'penny'. With *-i-* it is relatively frequent in names of peoples, such as the *Thuringi*, also with *-l-* as in Go. *gadiliggs* 'relative'. With *-u-* it has become very prominent in German to produce nouns of action from verbs, such as OHG *warnunga* beside the verb *warnōn*, NHG *Warnung* 'warning'.

As noted above, very few derivations are found with labial suffixes. A suffix from Proto-Germanic, *-ba-*, is relatively frequent in Gothic with adverbial function, as in *harduba* 'terribly' beside the base *hard-*. The *m-* suffix is more frequent and is found with following vowels on nouns as *-mo-* and *-men-* suffixes in Proto-Indo-European, for example OHG *ātum* 'breath', Gk *atmós* 'fog'. An example with accompanying verb is Go. *barms*, ON *barmr*, OE *bearm*, OHG *barm* 'lap' beside the verb, Go. *baíran* 'bear, give birth'.

4.2.7. Derivation with Nouns as Suffixes

As noted above in section 4.1, nouns came to be used as suffixes in the Germanic languages, though none is attested in Gothic despite equivalent nouns being found there. Fuller accounts of the suffixes and the types of nouns to which they are added may be found in the grammars of Grimm (repr. 1878-1898) and Wilmanns (1893-1909), and also in specialized monographs.

4.3. Verbal Suffixes and the Bases to which they were Added

The roots and bases of the strong verbs have no special "Germanic" suffixes like those of the weak verbs. Verbs in the first three classes have an enlargement on the root, for example Go. *giutan* 'pour' from PIE *g^{h}ew-* as in Gk *khéō* 'I pour'; but these and similar bases were inherited from the parent language, as illustrated by the Latin cognate *fundō, fūdī* 'pour'.

The four weak classes on the other hand have specific suffixes with characteristic meanings that, however, do not apply to all verbs in the class. Verbs in the first weak class have an *-i/j-* suffix, as in Go. *lagjan* 'lay', preterite *lagida*. As in its contrast with *ligan* 'lie', the suffix adds a factitive or causative meaning. Verbs in the second weak class have an *-ō-* suffix, and are associated with nouns indicating the activity associated with their meaning, as in Go. *swiglōn* 'play the flute', *gaswiglōdēdum* 'we played the flute' beside *swiglja* 'flute player'. Verbs in the third weak class have an *-ái-* suffix and are for the most part durative in meaning, as in Go. *witan* 'keep watch over', preterite *witáida*. Verbs in the fourth class are found only in Gothic; they have an *-na/nō-* suffix and are inchoative in meaning, as in *gadáuþnan* 'die', *gadáuþnōda*; cf. the adjective *dáuþs* 'dead'.

Many verbs in the first weak class have "simpler" verbs, or nouns and adjectives, beside them, from which they may have been derived. Among examples of verbs like *lagjan : ligan* are Go. *satjan : sitan* 'set : sit', *nasjan : ga-nisan* 'save : be saved'. Among examples with nouns are Go. *dáiljan : dáils* 'deal out : portion', *matjan : mats* 'eat : food', *rignjan : rign* 'rain : rain'. Among examples with adjectives are Go. *fulljan : fulls* 'fill : full', *láusjan : láus* 'loosen : loose', *ga-qiujan : qius* 'make alive : alive'. As the translations indicate, many of these are maintained in the dialects, often with subsequent phonological modification (umlaut), as illustrated by *set* and *fill*.

Verbs of the second class typically have nominal forms beside them, e.g. Go. *fiskōn : fisks* 'to fish : fish', *grēdōn : grēdus* 'be hungry : hunger', *spillōn : spill* 'proclaim : myth'. Among examples with adjectives are Go. *ga-sibjōn : un-sibjis* 'be reconciled : unlawful', *ga-tilōn : til* 'achieve : suitable', *ga-wundōn : wunds* 'wound : be wounded'. A few have verbal forms beside them with the vowel of the preterite singular, e.g. Go. *h^{w}arbōn* 'go about' versus *h^{w}aírban* 'walk'.

Verbs of the third class are fewer than those of the first and second classes. Some have related verbs beside them, e.g. Go. *ga-kunnan* 'recognize' beside the preterite-present verb *kann* 'know', *witan* 'keep watch over' beside the preterite-present *wait* 'know'. More are derived from adjectives, e.g. Go. *arman* 'have pity' from *arms* 'pitiable', *ga-þarban* 'abstain from' from *þarbs* 'needy', OHG *altēn* 'grow old' from *alt* 'old'. A few are derived from nouns, e.g. Go. *ga-þiwan* 'enslave' from *þius* 'servant'.

Verbs of the fourth class, attested only in Gothic, are in general inchoative in meaning, but may verge on a passive meaning. They are found beside verbs and adjectives, apparently created within East Germanic. The suffix carries a totally different meaning from the factitive meaning of the *nā-* suffix of Sanskrit Class 9 verbs, as evidenced by the cognate of *weihnan* 'be hallowed', Skt *vinákti* 'separate'. Among examples are *us-bruknan* 'be broken off' beside *brikan* 'break', *ga-dáuþnan* 'die' beside *dáuþs* 'dead', *minznan* 'become less' beside *mins* 'less'.

4.3.1. Additional Suffixes

In the course of time further suffixes developed, much as the four suffixes of the weak verbs had; a few Gothic verbs illustrate how it began and was expanded. The Gothic verb *fráujinōn* 'rule over', based on *fráuja*, gen. *fráujin* 'lord', and the verb *gudjinōn* 'be a priest', based on *gudja* 'priest', provide examples. The verbs are comparable to other second class verbs that are derived from the bases of nouns, such as *fiskōn : fisks*, but a new suffix *-inōn* was "clipped" from them, on the basis of which further verbs were made from nouns other than *ja*-stems, cf. Go. *aírinōn* 'be a messenger' from *aírus* 'messenger', *lēkinōn* 'heal' from *lēkeis* 'physician'.

In the same way a suffix *-izōn* was clipped from Go. *hatizōn* 'be angry', based on *hatis* 'hatred, anger'; this example has the further interest that a first class weak verb, *hatjan* 'hate', and a third class verb, *hatan* 'hate', already existed in Gothic. Another verb with the new suffix is *walwisōn* 'roll about' beside *af-walwjan* 'roll away'; it may be assumed that there was a Proto-Germanic noun **walwiz*, but a reflex is not attested in Gothic (Lehmann 1986:9).

Similarly, the bases from which verbs in *-atjan* were formed are not attested, although the stem may be found in a noun of different formation, as with Go. *láuhatjan* 'flash like lightning' beside *láuhmuni* 'lightning', or in another, related verb, as with Go. *swōgatjan* 'sigh' beside *af-swōgjan* 'sigh deeply', or there may be no comparable base, as for *káupatjan* 'strike'.

We may attribute the absence of such bases to the small amount of text that we have for Gothic, and to its type, for many more examples are found in the languages attested later, such as Old High German. There, for example, a number of verbs are attested with the (shifted consonantal) reflex of *-atjan*, such as *lohazzen* 'flame up' and *vlogarazzen* 'fly', as well as in the later language, cf. MHG *blinzen* 'blink'. Moreover, suffixes that might have developed in Gothic, as from the third weak class verb *swiglōn* 'play the flute' beside *swiglja* 'flute player', cf. OE *swegalōn* 'play the flute' were not clipped and used with bases other than those ending in *-l* as they were in Old High German, which has numerous such verbs, e.g. *betōlōn* 'beg' beside *betōn, beten* 'pray' as well as many in modern German with *-eln*, such as *betteln*. The same applies to other suffixes, for example those with *-r-*, such as NHG *-ern* in *füttern* 'feed', with *-k-* or *-sk-*, such as NHG *horchen* 'hear', and with *-g-*, such as *heiligen* 'sanctify'. The development is clear and readily exemplified in the Germanic languages of today, all of which include numerous suffixes for deriving verbs.

4.4. Derivation of Verbs by Means of Prefixes

Because OV languages do not have prefixation, its use in the early Germanic languages requires explanation. To simplify this presentation, material will be taken primarily from its specific application in Gothic. As Jacob Grimm (repr. 1878-1898) and others have pointed out, prefixation provided the means for indicating perfective meaning, as on verbs (Wilmanns 1899, I: 167-173). Proto-Germanic was developing from a distinction between animate/active and inanimate/stative meaning in the present and preterite of verbs. The distinction between imperfective and perfective meaning then was expressed through the use of prefixes, especially *ga-*, which could be applied to any verb form, as in the Gothic version of *Luke* 8:8: *saei habái áusona du háusjan,*

gaháusjái 'whoever has ears to hear, let him listen', with imperfective 'hear' vs. perfective 'listen'. The aspectual distinction is not due to translation of the Greek, which reads: *ho ékhōn ṓta akoúein akouétō* 'he having ears to hear, let him hear', with the imperative simply in the present tense.

As in this passage, the most frequent prefix indicating perfective aspect was *ga-*, a cognate of Latin *com-*, which like the preposition *cum* typically meant 'together with'. The inherited meaning of *ga-* is clear in Gothic verbal forms like *ga-háitan* 'call together' in contrast with *háitan* 'call, be called', and in nouns like *ga-brūka* '(something broken together), crumb', OE *ge-broc* 'fragment'. But the perfective meaning comes to predominate, as is clear in many verbs such as Go. *ga-lūkan* 'lock up', *ga-malwjan* 'grind up'. In time it comes to stand especially with past participles, as in German today. Curiously, it has not been maintained in English inflected forms, where the perfect tenses as well as the simple past participle indicate perfective aspect.

In Grimm's view, the other prefixes also indicated perfective aspect, but it is less evident and no longer included for some verbs. The Gothic prefix *and-* often has its etymological meaning of 'towards, opposite', as in verbs like *and-hafjan* 'answer', *and-sakan* 'speak against', *and-standan* 'withstand'; but it also has a less specific meaning and adds a perfective status in verbs like *and-háitan* 'acknowledge' beside *háitan* 'call, be called', *and-háusjan* 'listen' beside *háusjan* 'hear', *and-niman* 'receive' beside *niman* 'take, accept', or a somewhat weaker expression of opposition as in *and-qiþan* 'speak with'. In some verbs it has a privative meaning, as in Go. *and-wasjan* 'undress' as opposed to *wasjan* 'dress'.

Similarly, the Gothic prefix *bi-*, a cognate of English *by* 'nearby', has its literal meaning in verbs like *bi-rinnan* 'surround' beside *rinnan* 'run' and *bi-standan* 'stand about', while adding primarily a perfective sense in some verbs like *bi-gitan* 'find' and its Old English cognate in *bi-gietan* 'receive, produce', as in NE *beget* beside *get*. In this way it illustrates the general development of such prefixes from concrete meaning to grammatical use with little distinction from the simple verb as in Go. *bi-laígōn* 'lick' like the simple verb OE *liccian*.

The Gothic prefix *dis-* has the meaning 'away', as in *dis-dáiljan* 'distribute' beside *dáiljan* 'divide', *dis-skáidan* 'distribute' beside *skáidan* 'separate', *dis-taíran* 'tear apart' beside OE *teran* 'tear'. But it can also convey a meaning of greater intensity as in *dis-driusan* 'fall on' beside *driusan* 'fall', *dis-haban* 'take, hold' beside *haban* 'have', *dis-sitan* 'seize' beside *sitan* 'sit'.

The three prefixes, Go. *faír-*, *faúr*, *fra-*, have several interests, among them that they have fallen together in German as *ver-*. Each forms a compound verb with *-rinnan* 'run' as given here with its meaning: Go. *faír-rinnan* 'extend to', *faúr-rinnan* 'go before', *fra-rinnan* 'meet up with'. The etymology of *faír-* is unclear, and accordingly its original meaning is unknown. That of *faúr-* is assumed to be PIE *pṛ-* 'forward'; its meaning in Gothic is then in accordance with that of its Indo-European source, so that it contributes to the sense of the compound verb rather than providing perfective force. The etymology of *fra-* is PIE *pro* 'forward, ahead'; it maintains this meaning in many of its compounds, such as *fra-atjan* 'give away (to be consumed)', *fra-itan* 'devour' beside *itan* 'eat'. On the other hand, *fra-niman* 'take along' and *fra-baíran* 'endure' like NE *forbear* has perfective meaning. The perfective meaning provided by *fra-* may be clearly

indicated by the distinction between the forms of *giban* and *fra-giban* in *John* 10:28-29, which also includes forms of two verbs with the prefix, *fra-qistnan* and *fra-wilwan*, both with perfective meaning:

28. jah ik libain aiweinōn giba im, jah ni fraqistnand áiw; jah ni frawilwiþ hʷashun þō us handáu meinái. *29*. atta meins þatei fragaf mis, maízō alláim ist, jah ni áiw áinshun mag frawilwan þō us handan attins meinis.
'And I give unto them eternal life; and they shall never perish, neither shall any *man* pluck them out of my hand. My Father, which gave *them* me, is greater than all; and no *man* is able to pluck *them* out of my Father's hand.'

The simple verb *giba* in verse 28 has imperfective meaning: "I give unto them eternal life" while the prefixed verb *fragaf* has perfective force: "My Father, who gave them to me" as does the verb *frawilwiþ*: "no man is able to pluck them out of my Father's hand."

These examples illustrate further the gradual shift of the meaning that is often conveyed by the prefixes, so that the prefixed forms come to have a distinct lexical meaning rather than one that reflects directly the meaning of the two elements, as we may also note with examples like English *forgive* in contrast with *give*.

4.5. Derivation of Nouns by Means of Prefixes.

Prefixes used for the derivation of verbs are also used for the derivation of nouns, for example PGmc *ga-* and the preposition *us-/ur-*. The prefix *ga-* maintains much of its etymological meaning 'together' as it does in OHG *gi-bruoder* 'brethren'. Among Gothic examples are *ga-arbja* 'co-heir', *ga-háit* 'promise' beside *háitan* 'name', *ga-rūni* 'counsel' beside *rūna* 'plan, secret'. But it also has transferred meanings, as in *ga-gūdei* 'piety'. The prefix *us-* also retains much of its meaning as a preposition, 'out of', as in Go. *us-luk* 'opening', cf. OE *lūcan* 'close', in *us-met* 'manner of life', cf. *mitan* 'measure', from 'measure out' to 'behave', as also in *us-farþō* 'departure', and *uz-ēta* 'crib from which animals feed'. But it is less specific in *us-filh* 'burial' beside *filhan* 'bury, conceal' as in ON *fela* 'hide, conceal'.

Similarly, other prefixes, which in some derivations have their literal meaning, have in others a transferred meaning, for example nouns with the prefix *af* 'from', such as Go. *af-stass* 'divorce' with *af* and a noun with *-ti-* based on *standan* 'stand', and Go. *af-etja* 'glutton' with *af* and a noun with *-ja-* based on *itan* 'eat', in which *af* has its literal meaning as it also does in *af-lageins* 'forgiveness' beside the verb *af-lagjan* 'put off'. In Go. *af-gudei* 'ungodliness', on the other hand, it corresponds to the negative prefix *un-*.

Similarly, nouns with the prefix *ana* 'at, on' maintain the meaning of the preposition in nouns such as Go. *ana-būsns* 'command' with *ana* and a noun related to the verb Go. *ana-biudan* 'command' and OHG *biotan* 'bid, offer, order', Go. *ana-láugnei* 'concealment' with *ana* and a noun related to the verb *láugnjan* 'deny', while the meaning is somewhat modified in Go. *ana-qiss* 'blasphemy' with *ana* and a noun related to *qiþan* 'speak'.

The process of deriving nouns through prefixation is maintained and expanded in the later dialects, such as English and German. Except for derivatives with the negative prefix *un-* the process is not as well developed in Gothic as in the dialects, in which

many of the prefixed forms are based on Latin counterparts. Nor has it been applied in inflection, as is the prefix *ge-* in the past participle of German. Moreover, suffixation is carried out more widely. But it was clearly applied in late Proto-Germanic as the vocabulary was expanded to cover educational, technical, and theological topics.

4.6. Compound Nouns

Compounds comparable to those in the other early Indo-European languages were also included in the Germanic lexicon. To demonstrate their antiquity in Germanic, Kluge pointed out (1913:228-32) that they are attested in names of peoples and places that are recorded in Latin texts, e.g. *Langobardi* < 'having long beards' and *Scadinavia* < 'dangerous isle'. Similarly, borrowings into other languages, such as Finnish *napa-kaira* 'borer', cf. OHG *naba-gēr*, and Old Slavic *vrŭto-gradŭ* 'garden', cf. Go. *aúrti-gard* 'root-garden' must have been taken from Proto-Germanic. Compounds are also prominent in Germanic proper names recorded in the classical sources, such as *Ariovistus* and *Sigimerus*, as well as in the runes, e.g. *Hlewagastiz*.

The early lexicon included compounds of the four prominent Indo-European types that are well-known from Sanskrit: possessives/bahuvrihi, such as Go. *haúh-haírts* 'arrogant, high-hearted < having a high heart'; determinatives/tatpurusha, such as Go. *gud-hūs* 'church < god-house'; descriptives/karmadhāraya, such as OHG *jungfrouwe* 'virgin < young woman'; copulatives/dvandva, such as OE *suhterfæderan* 'nephew and uncle' and the teen numerals, such as Go. *fimftaihun* 'fifteen'. The determinative and descriptive compounds are far more common in Germanic than the other two types. The presence of these in the various Germanic dialects supports the hypothesis that Proto-Germanic also included them.

In addition to their early attestation, assumption of the presence of compounds in Proto-Germanic is supported by distinctive formations in which the first element differs from its simple counterpart. Among examples are Go. *ala-mans* 'totality of human beings' in contrast with *alls* 'all', *mana-sēþs* 'mankind' in contrast with *manna* < **mans*, *midjun-gards* 'inhabited world' in contrast with *midja-*. The second element also may differ from that of the simple form, as in Go. *at-aþni* 'period of a year' in contrast with *aþn* 'year' and *anda-waírþi* 'presence < equivalent worth' beside *waírþs* 'worth'.

Moreover, compounds may maintain elements that are lost as distinct nouns. For example, OHG *deo* 'servant' is maintained in NHG *Demut* 'humility' though not as an independent noun, for which the meaning was closer to that of the cognate of Go. *þius* 'servant' in OHG *dio-muoti* 'mood of a servant'. Similarly the English cognate of Go. *waír* 'man' is maintained in NE *werewolf* though not independently.

Grimm (repr. 1878-1898, II: 404-535) documents the compounds consisting of noun plus noun by relationship of components, and then provides an extensive list, continuing with similar presentation of those consisting of noun plus adjective (535-572) and finally of noun plus verbal element (572-580). Only a few examples will be given here. His category of spatial relationship corresponding to the meaning of the preposition *in* includes nouns like OE *eorð-cyning* beside which he adds Lat. *rex-terrae* 'earthly king'. His category of time, also with the meaning of *in*, includes Gothic *nahta-mats* 'meal in the evening'. His category of spatial relationship corresponding to the meaning of *out of* includes OHG *himil-brōt*, Lat. *panis coeli*, 'bread from heaven, manna'. His category of

spatial relationship corresponding to the meaning of *at, on* includes Go. *figgra-gulþ* 'finger-ring, ring on the finger'. A second group of compounds is characterized by appositional relationship, as in animal and plant names indicating the species and genus, cf. Go. *weina-triu*, OE *wīn-trēow* 'vine'; another example of the group is Go. *mari-sáiws* 'sea'. After his presentation of characteristic groupings, Grimm provides an extensive alphabetical list with commentary on the characteristics of the many items cited. The list leaves little doubt that such compounds were included in the lexicon of Proto-Germanic.

In the course of time compounds became increasingly prominent, as many learnèd words were based on Greek and Latin compounds. They are treated at length in handbooks, such as Carr (1939) and Marchand (1969, with extensive bibliography). Grimm, as noted, provides similar treatment for German, as do grammars of the other Germanic dialects.

4.7. Pronominal Compounds

Pronouns are also compounded with nominal elements, such as Go. *hʷē-láuþs* 'how much (what shape)' and *hʷi-leiks* 'what kind'. The two elements are generally fused, if the word is maintained. For example, cognates of *hʷi-leiks* survive in ON *hvī-līkr* and OHG *hwe-līh*, but in Old English it is reduced to *hwilc*, thereupon to *which*, and in New High German to *welch*. Another final element that is attached to pronouns in Gothic, as in *sa-ei* 'he-who' and *ik-ei* 'I who', is assumed to be a form of the pronoun, PIE *e, ei, i* as in Lat. *is* 'he', and the further form PIE *yo-* 'who'. Similarly, the element *uh* or *h* that is added to Gothic pronouns is assumed to be related to Lat. *que* 'and', which also is added to pronouns, as in modifying *quis* 'who' to *quisque* 'whoever'. When *uh/h* is added to the demonstrative forms *sa, sō, þata* 'this, that', e.g. *sah, sōh, þatuh*, it strengthens their meaning. But when added to interrogatives, such as Go. *hʷas* 'who', it leads to a general meaning, as in *hʷazuh* 'everyone'; similarly, *hʷarjis* 'which' and *hʷarjizuh* 'each'. Another such element is Go. *hun*, which is added to relative pronouns as well as other words to provide an indefinite meaning, but only following a negative, as in Go. *ni hʷashun* 'no one'.

Compounding was also carried out by prefixing elements, such as Go. *þis*, the genitive singular of *þata* 'that', as in *þis-hʷah*, an indefinite pronoun meaning 'whatever' and in *þis-hʷaruh* 'wherever'. This element is also found in Old High German with a prefix from **aiþ*, as in *etheswer* 'someone' and *eddeswaz* 'something', which is reflected in New High German as *etwas* 'something'. Similarly, the first syllable of NHG *jeder* 'each one' is the reflex of the accusative singular Go. *áiw*, OHG *io* 'ever'. And the negative *ni, nih* prefixed to the indefinite article *ein*, as in OHG *nih-ein*, has led to the New High German negative *kein* 'no one, nothing'. As these developments indicate, pronouns tend to be reduced, so that forms that may have originated in compounds later seem to be simple in structure.

4.8. Derivation of Adjectives in Comparison

Adjectives have two derived forms, a comparative and a superlative. The chief suffix to express comparison is PGmc *-is-*; added after the syllable of the positive with chief stress it is reflected in Gothic as *-iz-*, in the other dialects as *-(i)r-*, as in the comparative forms of PGmc *jungaz*, Go. *jugg-*, ON *ungr*, OE *geong*, OHG *jung* 'young': PGmc *jungizo*, Go. *jūhiza*, ON *yngri*, OE *geongra*, OHG *jungiro* 'younger'.

The chief suffix for forming the superlative is PGmc *-isto-*; for *-ō-*stems it has the variant *-ōsto-*. A second suffix is *-mo-* with a variant *-misto-*. Superlatives of PGmc *jungaz* and the dialect forms are as follows: PGmc *jungisto*, Go. *jūhista*, ON *yngrist*, OE *geongrist*, OHG *jungist* 'youngest'.

Some common adjectives have suppletive forms, as also in the other Indo-European dialects, e.g. Gk *agathós* 'good', *ameínōn* 'better', *áristos* 'best'. These may have been formed before comparison became paradigmatic, and then were associated with simple adjectives like the etyma of PGmc *gōþ-* 'good', *ubil-* 'evil', *mikel-* 'large', *lītel-* 'small' and a few others. Examples of the comparison of *gōþ-* are as follows: PGmc *gōþ-, batizo, batisto*, Go. *gōþs, batiza, batista*, ON *góðr, betri, beztr*, OE *gōð, betera, betsta*, OHG *guot, bezziro, bezzisto* 'good, better, best'.

4.9. Formation of Adverbs from Adjectives

In the early Germanic languages, adverbs were derived from adjectives by means of various suffixes. Attempts have been made to determine their source in Proto-Indo-European, as from case endings, but the case relationship is difficult to establish and accordingly the assumption of a source in particles is preferable.

The suffix *ba* is found in many adverbs in Gothic though not in the other dialects, e.g. *glaggwaba* 'diligently' and *glaggwuba* 'precisely'. The adjective is not attested in Gothic, but can be reconstructed as **glaggw(u)s*, cf. ON *glǫggr*, OE *glēaw*, OHG *glau* 'clear-sighted, intelligent'. Like other suffixes, *-ba* is also added to compounds, such as forms of Go. *and-áugi* 'face', a compound consisting of the preposition *and* 'over, through' and the *-ja-* stem of *áugō* 'eye': *and-áugiba* 'openly'. Its source is unclear. It may be a derivative of an Indo-European particle made with *-bh-*, like Greek *-phi*.

Another more general suffix is *-ō*, as in Go. *galeikō*, ON *līka*, OE *gilīco*, OHG *gilīcho* 'similarly'. Compounds made with the second element *leik* 'body' have the ending *-ō*, such as Go. *waírleikō* 'manly', *aljaleikō* 'otherwise'. It is found also in Go. *glaggwō* 'accurately' and *and-áugjō* 'openly'. Proposals have been made to derive it from the Indo-European ablative ending *-ōd*, but the difference in meaning makes these unlikely. Many compounds are made with the second element *leik* 'body' and the ending *-ō*, such as Go. *ga-leikō* 'similarly', ON *glīkr*, OE *ge-līc*, OHG *gi-līh*, cf. NHG *gleich* 'at once'. The suffix has been reduced, as in NHG *-lich*, e.g. *männlich* and to NE *-like, -ly*, as in *manlike, manly*. Adverbs with still other endings may be cited, such as *-is* in Go. *andwaírþis* 'openly' beside *andwaírþō* 'at once', with the second element based on the adjective *waírþs* 'worth', cf. NHG *vorwärts*, NE *forwards*. It also has been associated with a case ending, the genitive, though with little semantic basis for the proposal.

Still other adverbs were made with the bare stem, such as Go. *inn* beside *inna, innana* 'within'; cf. ON *inni, innan*, OE *inne, innan*, OHG *inna, innana* 'within'. Adverbs accordingly were derived in various forms.

4.10. Conclusion: Types of Derivation and Their Semantic Development

As the sections above have indicated, the Proto-Germanic vocabulary and that of the dialects were expanded greatly through affixation, chiefly suffixation. Many suffixes arose from particles. Others were originally words, which were then often shortened to suffixes. As exemplified below, the suffixes gradually developed from indicating concrete meaning to indicating abstract meaning.

Derivation in Proto-Germanic through suffixation is in accordance with its basic pattern as OV. From the Active structure of early Proto-Indo-European, in which particles indicated specific meanings when accompanying nominals, a structure developed in which the particles were directly attached to nominals and verbs. Specific patterns then arose in which further such complex items were formed. In the early period such items indicated concrete entities, such as PGmc **haima-* 'place of residence, house', Go. *háims* 'village', and *máiþms* 'gift' based on PIE *meit-* 'exchange'. In the course of time such suffixes typically shifted from provision of concrete meanings to that of abstract meanings as Karl von Bahder in his prize-winning work demonstrated (1880: 127-208). Items he cited for the later period indicated concrete entities but also abstractions, such as PGmc **faþma-* 'something spread out', OE *fæþm* 'the embracing arms', leading to 'the extent of such a spread' as in ON *faðmr* 'fathom', and PGmc **sturma-* 'scatterer', OE *storm* 'storm, battle, attack'. At a still later stage the meaning was purely abstract, as in PGmc **dōma*, Go. *dōms* 'condition, destiny', ON *dōmr*, OE *dōm*, OHG *tuom* 'judgment', and **drauma*, OE *dream* 'dream'.

Von Bahder cited many more examples, as of the developing meanings of words with *-þra-* from concrete to abstract meanings, such as PGmc **smerþra-* 'suet', **morþra-* 'murder as means of killing', **hroþra-* 'fame'.

Additional examples may be found in the numerals. For example, the tens were originally expressed with a cardinal number followed by a form meaning ten, as in PIE *septm-kont-* '70'. This developed to PGmc *seftunχanþ-*, which was subsequently modified to Gothic *sibun-tehund*, where the second element still would have been interpreted as a variant of Gothic *taihun* 'ten', but in the other dialects further development obscured the relationship, as in ON *sjau-tiger*, OE *seofon-tig*, OHG *sibunzug* 'seventy'; the second element had been reduced to a form that might no longer be interpreted as a variant of a form of ten.

Efforts to account for the changes may be pursued in the grammars and dictionaries of the individual dialects. The phonological weakening has been ascribed to the strong initial stress in late Proto-Germanic and the subsequent dialects. The increased lexicon resulting from the expansion of the suffixes coupled with the various forms of compounding presented above may be ascribed to the increasing complexity of the culture of the Germanic speakers. This included the introduction of Christianity and Classical culture, which brought the production of many abstract terms. As the culture of the speakers of the Germanic language expanded, its lexicon was greatly expanded in the subsequent dialects, largely by means of derivational morphology and also by borrowing.

V. SYNTAX

5.1. Structure of the Sentence as SOV

Determining the structure of the sentence in Proto-Germanic presents problems, because most of the early texts are either poetic or translations. The Runic texts are exceptions, but they have requirements of style and arrangement on stones so that not all of them are without problems, and many are very short. Nonetheless, as a result of their antiquity and native tradition, in determining the basic structure of the sentence we rely heavily on them as texts that appear to be least modified by literary conventions or introduction of non-native patterns through translation. Evidence based on them, as well as on early texts that are not translations, leads to the conclusion that the order was subject-object-verb (SOV, simply represented as OV).

5.1.1. Evidence for OV Order in Simple Clauses

It is generally agreed that the *Gallehus* Runic inscription provides a typical pattern of the Proto-Germanic sentence structure. Dated to the fifth century A.D., it is a straightforward statement framed as an alliterative poetic line.

ek hlewagastiz holtijaz horna tawido.
I Hlewagastiz of Holt horn I-made
'I, Hlewagastir of Holt, made the horn.'

The subject *ek* is followed by two appositional nominals; these in turn are followed by the object, which occupies the most important place in the alliterative poetic line, and finally by the verb. This inscription and others provide strong support for the conclusion that the structure of the sentence in Proto-Germanic was SOV. Moreover, its intonation pattern may be assumed to have the principal stress on the major alliterating syllable, which is generally the first accented syllable in the second half-line. The alliterating syllables of the first half-line would have had less stress, and the final stress would have been weak, as indicated by its lack of alliteration. It would have been accompanied by weakening and downward pitch, indicated here by #. The pattern is represented as 2 – 3 – 1#, usually given as 231#.

A longer Runic inscription on the *Tune* stone supports this conclusion even though it is not in accordance with poetic requirements, although the first half-line is somewhat comparable to a line of alliterative poetry. Making considerable use of apposition, the two sentences are verb-final.

ek wiwaz after woduride witadahalaiban worahto
I Wiwar after Woduridar Breadward produced [this]
[meR] woduride staina þrijoz dohtriz dalidun
(for) me Woduridar stone three daughters arranged
arbijarjostez arbijano
chief-inheritors of-heirs

I, Wiwar, produced this for Woduridar, the Breadward.
For me, Woduridar, [my] three daughters arranged the stone,
the chief inheritors among the heirs.

Many additional examples of SOV order could be supplied from the earliest literary texts, such as the first three lines of the Old English *Beowulf*. Moreover, for other syntactic constructs than word order these are more useful than the runes, which as in the examples cited above are generally short and straightforward with few modifiers.

Hwæt, wē Gār-dena in gēardagum
þēodcyninga þrym gefrūnon,
hū ðā æþelingas ellen fremedon.
Listen, we have heard of the glory of the Spear-danes,
of the kings of the people, in days of old,
how the heroes performed deeds of valor.

The two verbs stand at the ends of their clauses, as well as of the poetic lines. In the second and third lines the objects *þrym* and *ellen* occupy the major alliterative position. The two genitives precede the noun they modify. These lines and many others that might be cited from the early poetry provide strong support for the conclusion on OV order, and on the intonation of simple clauses, also evident in the Runic examples.

5.1.2. Order in Comparative Constructions

Among other patterns characteristic of OV sentence structure are comparative constructions attested in the early texts. Like clauses with objects of verbs, they are based on transitivity. In OV comparative constructions, the noun being compared, as the "standard" in the construction, precedes the adjective, much as objects precede verbs; it is usually in the dative case, but occasionally in the genitive. Numerous examples are attested, such as these in Old Norse and Old English:

sal sér hon standa, *sólo fegra*, (*Vǫluspá* 64.1-2)
hall sees he stand from-sun fairer
'He sees a hall standing (there), fairer than the sun.'

Among examples in *Beowulf* is line 1850:

þæt *þē* Sǣ-Gēatas *sēlran* næbben
that than-you the Sea-Geats better-one not-have
that the Sea Geats do not have a better one than you

Among examples in later verse are the following from the Old English poem *Elene*:

Hēo wǣron stearce, *stāne heardran*
They were strong harder than stone (*Elene* 505) and
sunnan lēohtra brighter than the sun (*Elene* 565)

Examples are also found in prose texts, but for the most part these no longer have OV order. Moreover, the use of the dative preceding the standard was gradually lost. Small

(1929:83) concluded that it was no longer used after the second half of the tenth century, citing the translation of Latin *fortior nobis* in *Exodus* as *strengre þonne we*.

5.1.3. The Use of Postpositions

Another OV pattern in the early texts is the use of postpositions rather than prepositions. Examples may be cited from verse, such as:

Nástrǫndo á, norðr horfa dyrr;
at Nastrond, the door facing north; (*Vǫluspá* 38.3)
Scyldes eafore *Scedelandum in*
Scyld's offspring in the Scandinavian lands (*Beowulf* 19)
frēawine folca *Frēslondum on*
lord of the people in Friesland (*Beowulf* 2357)
eorlas on elne; ic him æfter sceal.
the warriors to courage; I shall follow them. (*Beowulf* 2816)

Instances of the use of postpositions with nouns may be considered residues, for even in *Beowulf* prepositions are the most common adpositions, as in the first half-line of *Beowulf* line 2816. They are standard in Old English prose texts, such as *The Voyages of Ohthere and Wulfstan*,

Hē cwæð þæt hē būde on þǣm londe norþweardum wiþ þā Westsǣ.
He said that he lived on the land to the north facing the West Sea.

And the comparative construction found in this text is comparable to that in use today, for example:

Sēo is brādre þonne ǣnig man ofer sēon mæge.
'It is broader than any can see across.'

5.1.4. Placement of Titles after Proper Names

A further OV pattern places titles after the name, as in *Beowulf* 2430:

Hēold mec ond hæfde Hrēðel cyning,
King Hrethel protected and kept me,

Similarly, in the 'Wars of Alfred the Great' he is referred to as *Ælfrēd cyning*.

Among Old Norse examples is the following from the Hrolf saga:

Kømr nú þessi fregn fyrir Hrólf konung...
This information comes now to King Hrolf...

This use also with titles is clear from the position of 'priest' in the first sentence of Ari's *Libellus Islandorum*:

Íslendingabók gørða ek first biskupum várum Þorláki ok Katli,
ok sýnda ek bæði þeim ok Sæmundi presti.

I first prepared the Iceland book for our bishops Thorlak and Ketill, and I showed it both to them and to the priest Saemund.

The order may be the basis of the use of characteristic designations with notables, as in Ari's statement on the year 870 A.D.:

Ísland bygðisk fyrst ór Norvegi á dǫgum Haralds ins Hárfagra, Hálfdanarsonar ins Svarta...
Iceland was first colonized from Norway in the days of Harold the Fair-haired, the son of Halfdan the Black.

5.1.5. Word Order in Equational Sentences

Equational sentences, in which the verb is the copula, also had final order of the verb in Proto-Germanic, as in an inscription on the *Kragehul* lance shaft:

ek erilaz asugisalas em
I erilaz of-Ansugisalaz I-am
I am the erilaz of Ansugisalaz.

But this position for the copula may not have been maintained for long in Proto-Germanic; as in other early documents, the copula in *Beowulf* is positioned like other verbs.

5.1.6. Evidence in Modifying Constructions

There is less evidence for retention of OV structure in the basic modifying patterns — relative clauses, adjectives, and genitives. In OV languages these precede the noun modified. Even in *Beowulf* and the other early texts, however, relative clauses consistently follow the noun they modify. But the use of participles in clauses preceding the noun modified suggests that such clauses may have continued the use of OV relative clauses in Proto-Germanic. Examples are given in section 5.3.1 below.

5.1.6a. Relative Clauses Indicated by Particles

Moreover, particles, with or without a demonstrative pronoun that is in accordance with the noun in gender and number and with the other members of the clause in case, may have been a further development to the construction that was later introduced by a relative pronoun. These differ among the dialects, providing a further indication that the postposed pattern of relative clauses was a late development, e.g. Gothic *ei*, Old English *þē/þe*, Old Norse *er* and *es*.

The following Gothic passage illustrates the use of *ei* as a relative marker, as a conjunction, and as a relative marker with a demonstrative pronoun:

... und þana dag ei waírþái þata, duþē ei ni galáubidēs waúrdam meináim, þōei usfulljanda in mēla seinamma. (*Luke* 1:20)
... until the day that these things shall be fulfilled, because thou believest not my words which shall be fulfilled in their season.

The Old Norse particles *es*, later *er*, and then *sem* fulfill similar functions, as indicated in the following passages from Ari's *Libellus Islandorum*:

Eiríkr inn Rauði hét maðr Breiðfirzkr, er fór út heðan þangat ok nam þar land er síðan er kallaðr Eíríksfjǫrðr.
Eric the Red was the name of a man in Broadfirth, who went out from here to there (Greenland) and took up land there that has since been called Eric's Inlet.

In Old English the particle *þe, þē*, also spelled *ðe*, was widely used for all relative clause patterns, among them supplementing demonstratives, and also conjunction, as in the following examples from *Beowulf*:

worolde wilna, þē ic geweald hæbbe. (950)
of joys in the world over which I have control.
sē þe ēow wēlhwylcra wilna dohte. (1344)
(he) who provided for you all favors.

5.1.6b. Demonstrative Pronouns Used to Introduce Relative Clauses

In Gothic the demonstrative pronouns *sa, sō, þata* plus the particle *ei* were the basis of the relative pronouns *saei, sōei, þatei* with reference to third person nouns, presumably to provide a more specific reference than that of the simple particle. The *ei* particle was also used with first and second person pronouns e.g. *ikei* '(I) who', *þūei* '(thou) who', as in 1 Corinthians 15.9:

ik áuk im sa smalista apaústaúle ikei ni im waírþs ...
I actually am the least of the apostles, who am not worthy...

In Old Norse the particle was not combined with the pronoun, as in the following example from Ari's *Libellus Islandorum*:

Þá váru hér menn Kristnir þeir er Norðmenn kalla papa.
Then there were Christian men here whom the Norwegians call papa.

The particle then came to be omitted. Already in *Beowulf* forms of the demonstrative pronoun *sē*, *sēo*, *þæt* were used without a particle to introduce relative clauses, as in line 453:

beaduscrūda betst, þæt mīne brēost wereð,
the best of military garments, that protects my breast,

The development is the same in Old High German, as illustrated by *Hildebrandslied* 15b:

(liuti) dea erhina warun
people who were earlier

5.1.7. The Use of Limiting Adjectives in Weak Inflection

Direct evidence of the earlier OV pattern is also given by limiting adjectives with weak inflection that precede nouns without definite articles. Seventy-five are found in *Beowulf*, e.g. *gomela Scylding* 'the old Scylding' [= 'Swede'] (2487; cf. Klaeber 1950:xcii). Weak adjectives are *n*-stems; these indicated a specific person or entity in Proto-Indo-European, as also in Latin where they gave rise to proper names, e.g. *Varrō* 'Varro', in contrast with the descriptive adjective *o*-stem *vārus* 'knock-kneed'. Line 1859 of *Beowulf* illustrates their use to indicate a specific entity: *þendan ic wealde wīdan rīces* 'as long as I rule over this wide kingdom'. They were not maintained in English, but they have made up a separate declension in German, where they alone no longer provide their original meaning but follow elements that do, such as definite articles.

5.1.8. OV Order for Adjectives and Genitives

Other adjectives, as well, precede nouns in Old English, as they do in Modern English, in contrast with a stricter VO language like French with regularly postposed adjectives:

Þæt wæs gōd cyning! He was a good king. (*Beowulf* 11)

Similarly in Old High German, as in the *Hildebrandslied*:

fohem wortum in few words (10)
friuntlaos man friendless man (24)

Many genitives also precede nouns in Old English and Old High German in accordance with OV patterning, such as:

þēodcyninga þrym the glory of the kings of people *Beowulf* 2
wuldres Wealdend the Lord of glory *Beowulf* 17
Scyldes eafera a descendant of Scyld *Beowulf* 19

Comparable examples are attested in the early texts of the other dialects, such as the Old High German *Hildebrandslied*:

Heribrantes sunu the son of Heribrant 7
Otachres nid the hatred of Otacher 18
degano filu a large number of warriors 19

And similarly in Old Norse, as in the *Vǫluspá* (40:7-8)

tungls tiúgari í trollz hami
of-sun destroyer in troll's appearance
destroyer of the sun in the appearance of a troll.

The Runic inscriptions provide few examples for the OV patterning of nominal modifier constructions, in part because of their conventions as in the use of apposition, in part because of their brevity, which among other features leave little possibility for relative clauses. The late Eggja inscription, cir. 700 A.D., includes a descriptive adjective before a noun in the phrase *viltiz mœnnz* 'wild men'. And the Stentoften and Björketorp inscriptions, cir. 675 A.D., end with a verb-final clause *saR þat barutR* 'who breaks

this'. Accordingly, the modifying constructions as well as the order of objects with regard to verbs indicate that the Proto-Germanic sentence structure was verb-final.

5.1.9. Word Order in Marked Constructions

On the other hand, the basic structure of sentences may be modified to emphasize elements, especially in poetry, as in the following examples where *æfter* as well as *mit geru* and *man* are placed for the purpose of emphasis.

Ðǣm	eafera	wæs	æfter	cenned	*Beowulf*	12
To-them	son	was	after	born		

A son was then born to them.

mit	geru	scal	man	geba	infahan	*Hildebrandslied* 37
with	spear	should	one	gift	receive	

One should receive a gift with the spear.

The Old Icelandic example in section 5.1.6b provides another example, with verb and adverb preceding the subject. And Ari begins his work with the statement:

Íslendingabók gørða ek fyrst biskupum várum Þorláki ok Katli...
The Iceland Book I prepared first under our bishops Thorlak and Ketill...

Imperatives may be considered marked patterns, and typically they have the verb in first place, as in modern English, e.g.

Gesaga	him	ēac	wordum,	þæt	hīe	sint wilcuman (*Beowulf* 388)
Tell them	also	in words	that	they	are	welcome.
Forgip	mir	in	dino	ganada	rehta	galaupa. (OHG *Wessobrunner Gebet*)
Give me	in your	grace	correct	belief!		

Like marked constructions in general, these do not confute the conclusion on the basic OV order, but they may be expected for highlighting relevant passages.

5.2. The Word Order of Questions

Questions without interrogative marker have the verb in first position, as in the Old High German baptismal vows:

Forsahhistu	unholdun?

Do you forsake the devil?

Questions of this order may include the enclitic *-u*, as in Gothic:

Maguts-u drigkan stikl...? Can you drink the cup...? *John* 19:39

When questions include an interrogative pronoun or adverb, it is initial, both in direct and indirect questions, as in the following examples:

Hvat's þat drauma? What sort among dreams is that? *Eiríksmál* 1

Hwanon ferigeað gē fǣtte scyldas *Beowulf* 333
Whence do you bear ornamented shields?
her fragen gistuont He began to ask
fohem wortun, hwer sîn fater wari in few words who his father was,
fireo in folche among the people of men *Hildebrandslied* 8b-12a

We assume that these patterns had been maintained from Proto-Germanic. Except for the absence of enclitic particles like *-u*, they were also continued in the later dialects.

5.3. Subordinate Clauses and Compound Sentences

Subordinate clauses may be distinguished as those that modify nouns, i.e. relative clauses, and those that complement verbs, either as objects or as adverbial clauses. Both reflect the OV structure of the earlier language, so that they may be reconstructed in Proto-Germanic. They also illustrate the various types of compound sentences in the language.

5.3.1. Relative Clauses

In an extensive article, Windisch (1869) concluded that, in Proto-Indo-European, relative clauses were introduced by the particle *yo*. His conclusion was widely disputed in view of the various means for introducing relative clauses in the dialects and also in lack of treatment of Proto-Indo-European as an OV language. But when Hittite was read, the form of relative clauses or, more precisely, their earlier form, became clear. They arose from a sequence of clauses in which the noun or pronoun modified was indicated by a marker in an initial clause; this clause was followed by the principal clause that often included an anaphoric pronoun referring to the item modified. The Old Latin inscriptions provide examples, such as:

Quei ager commutatus est, de eo agro siremps lex esto
some field changed is from that field exempt law is-to-be
The law will not apply to a field that has been changed.

The Old High German sequence in *Otfrid* 2.13.9 provides an example for Germanic:

ther brut habet, ther scal ther brutigomo sin
that-one bride has, that-one shall the bridegroom be
Who has the bride will be the bridegroom.

When the VO pattern became dominant, the principal clause occupied first position, and the earlier preposed element was placed after its antecedent, as in:

That one shall be the bridegroom who has the bride.

The modification of relative clause structure took place in the different Indo-European dialects or dialect groups, as indicated by the different relative particles among them. Some of these were adapted from forms of **yo*-, such as Sanskrit *yá*- and Greek *hó*, others from interrogative markers, such as Latin *quis, quid*, and still others from demonstrative markers, such as Old English *sē, sēo, þæt*, e.g. *Beowulf* 1267b with *sē* referring to Grendel:

heorowearh hetelīc, sē æt Heorote fand
a hateful outcast who found at Heorot...

As here, the relative clause follows its antecedent in the later dialects, and its verb typically stands in final position. The comparable relative pronoun is also so used in Old High German, as in the *Hildebrandslied* 16 with reference to the plural *liuti* 'people':

alte enti frote, dea erhina warun
old and wise, who were earlier.

In Gothic the relative clause was generally introduced by the particle *ei*, as in *Luke* 1:20:

und þana dag ei wairþai þata
until that day that this will come to pass

The source of *ei* has been disputed. One origin that has been proposed is as a reflex of a form of PIE *yo*, like Slavic *ijo*, cf. 4.7; it then would be a direct continuation of the *yo* marker proposed by Windisch. Its variant *þei* is used as relative marker after indefinite pronouns, as in *Mark* 6:22:

bidei mik þishʷizuh þei wileis
ask me whatever (that) you wish

In Old Norse the particle *es*, later *er* and *sem*, had a similar function, as in the sentence from *Leif's Voyage*:

Hann mælti þá á Norrœnu, er stund leið...
He said then in Norse, (which) as the time passed...

Note also *som* in the following sentence from *Hrafnkels saga*:

sá maðr, som fyrir gekk, heilsar þeim fyrri ok spyrr, hverir þeir væri.
The man who went ahead greets them first and asks who they might be.

The different particles provide evidence that relative clauses and other subordinate clauses as well had only a general marker in Proto-Germanic, as noted in section 5.1.6a above. In view of the differences it is difficult to decide on the most likely element, but because of the Indo-European use of **yo*, an earlier form of Gothic *ei* is most likely.

5.3.2. Participial Constructions Comparable to Relative Clauses

Although these examples illustrate the various structures of relative clauses in the later languages, reflexes of an alternative pattern that may have existed earlier are attested in *Beowulf* as well as in the Gothic translation of the Bible:

Hwīlum	flītende	fealwe	strǣte
at-times	contending	on-yellow	street
mēarum			mǣton.
with	horses	traversed. *Beowulf*	916-917a

They, who competed from time to time, proceeded down the sandy road with their horses.

The same pattern is found in Gothic, with a participle corresponding to the finite verb in Greek, as in *Luke* 7:44:

eisêlthón so u ei s t ȅn oikían
I entered into your house...
Atgaggandin in gard þeinana wato mis ana fotuns meinans ni gaft
To me entering into your house you did not give water for my feet.

Many other such preposed participles are found in the Gothic text; although they often correspond to the same construction in the original Greek, nevertheless they provide evidence that the construction was not entirely alien to Proto-Germanic.

5.3.3. Object and Adverbial Clauses

The Gothic particle *ei* is used not only for introducing relative clauses but also for object clauses and adverbial clauses, as in *Matthew* 5:17 where the clause is object of *hugjáiþ*:

Ni hugjáiþ ei qēmjáu gataíran witōþ...
Do not think that I have come to destroy the law...

In *Luke* 2:3 it introduces a result clause:

Jah iddjēdun allái, ei melidái wēseina
And they all went, so that they might be registered.

It is also used to introduce conditional clauses, as in *Mark* 9:42 where it corresponds to the Greek conditional conjunction *ei*:

Gōþ ist imma máis ei galaígjáidáu asiluqaírnus ana halsaggan is
It is better for him if a millstone were laid on his neck.

These and other instances indicate that in Gothic and possibly in other dialects, a general particle was used for introducing subordinate clauses.

The Old Norse particle *es*, with voiced corresponding form *er*, had similarly wide uses, as in the following sentence re: the introduction of Christianity into Iceland.

Hann sende hingat til lands prest, þann es hét Þangbrandr ok hér kende mǫnnom kristne ok skírþe þá alla, es viþ trú toko.
He sent here to the country a priest, whose name was Thangbrand, and he taught the people Christianity and baptized all of them who accepted the faith.

In time modifications were introduced to provide conjunctions that indicated more specifically the relationships between the principal clause and the modifying clause. The most frequent such compound conjunction in Gothic was *þatei* after verbs

indicating thought, belief and the like, as in *John* 11:13, although the simple *ei* was also used after such verbs:

Iþ jáinái hugidēdun þatei is bi slēp qēþi.
But they thought that he had spoken about sleep.

Similarly, *Matthew* 9:28:

Ga-u-láubjats þatei magjáu þata táujan?
Do you believe that I can do that?

Other such conjunctions in Gothic are based on prepositions and adverbs, for example *fáurþizei* 'before', *miþþanei* 'while, as', *sunsei* 'as soon as', *swāei* 'so that', *þadei* 'whereto', *þandei* 'because', *þanei* 'that', *þarei* 'where', *þaþrōei* 'from where', *þēei* 'through that'. As the meanings of the compound conjunctions indicate, the conjunctions and adverbs were added to *ei* for greater precision.

As a further development, the *ei* component may have seemed unnecessary. It was often omitted in Gothic, as were similar particles in the later dialects.

jah warþ, þan ustáuh Iesus þō waúrda
and became when finished Jesus these words
And the effect was, when Jesus finished these words... *Matthew* 7:28

Such adverbial clauses in the later language often include subjunctive forms of the verb as well as the introductory conjunction, as in *Beowulf* 452:

Onsend Higelāce, gif mec hild nime...
Send off to Higelac, if the battle should take me...

The development of adverbial clauses in the Germanic languages, then, is clear. In early Proto-Germanic there was no subordination. Later, particles like Gothic *ei* were added to indicate relationships between clauses; such particles were then combined with adverbs and prepositions that made the relationship more specific. Later yet, the appended particle was omitted and the conjunction consisted entirely of the element that indicated the specific relationship of the subordinate clause to the principal clause, which might be further specified by use of the subjunctive mood.

5.4. Expression of Negation

Negation is expressed by means of the particle *ne*, as also in Proto-Indo-European and some of the other dialects. It may be found in its full form with reference to an entire clause where *ne* is commonly placed before the verb, as in:

Hē bēot ne ālēh, He didn't fail to perform the promise, *Beowulf* 80

When used with nominal and adverbial elements it is prefixed and generally unaccented, accordingly in its zero grade form, PGmc *un-*, as in the adjective Go. *unkunþs*, ON *ūkūðr*, OE *uncūþ*, NE *uncouth*, and similarly in nouns, Go. *unkunþi* 'lack of knowledge', Go. *unhráinei* 'uncleanliness' and numerous others throughout the

dialects; cf. also Gothic *ni hwas* and *ni áins* 'no one'. From the second of these combinations, English *none* and German *nein* developed. Under primary stress *un-* maintained this form in the West Germanic languages, but in Icelandic it became *ó-* as in *ó-vitr* 'ignorant'; cf. ON *ólīkr*, NE *unlike*, and many other such forms.

When negating verbs or clauses, it has not survived in the modern dialects. As is widely found with negatives, words were often added to strengthen the negation; the strengthening element is commonly a noun, as in Old English and Old High German *wiht* 'being, thing', but a form of the negative itself may also be added:

Nē hīe hūru winedrihten wiht ne lōgon, *Beowulf* 862
They did not blame their lord a whit,

The cognate of *wiht* is also used in this way with the negative, in other dialects, e.g. Go. *ni waíht*, OHG *niwiht*, OE *nā-with*, as in the Gothic clause from *Matthew* 10:26:

Ni waíht áuk ist gahuliþ...
For not a thing is hidden...

The two words have been conflated in OHG *niht*, NHG *nicht*, NE *naught, not*. In Old Norse, on the other hand, the noun by itself has come to mean 'nothing', as in:

át vætr Freyja átta nóttum *Þrimskviða* 108
Freyja ate nothing for eight nights

Because the combination or its result in Old Norse is found in all the dialects, it and other such combinations, as illustrated below, may have been used already in Proto-Germanic.

Another such strengthening element is Gothic *áiw* 'length of time', as in:

ni áiw swā unkunþ was in Israela. *Matthew* 9:33
(at) no time so unknown was in Israel
Never had such a thing been seen in Israel.

The corresponding combination in German has given rise to *nie* 'never'. Cf. also Old English *nealles*, as in:

Nealles mid gewealdum wyrmhord ābræc *Beowulf* 2221
Not at all of his own accord did he break into the dragon's hoard.

A postposed enclitic used to support negation is also attested in several Germanic dialects, e.g. Gothic *-hun*:

jah ni fralaílōt áinōhun izē miþ sis afargaggan. *Mark* 5:37
and not he-let any-one of-them with himself follow
and he did not let any of those with him follow him

The form was voiced in accordance with Verner's law in Old Norse *-gi*, and in Old English *-gen*, Old High German *-gin*, as in Old Norse *hvergi*, Old English *hvergen*, Old

High German *hwergin* 'nowhere, not at all'. Still other clausal and verbal negatives are used in the early texts, but they must be left to the grammars of the dialects.

5.5. Expression of Voice: Middle and Passive Constructions

Forms of the Indo-European middle inflections survived in Gothic in the present indicative and subjunctive, but with passive meaning, as in:

Aþþan atgaggand dagōs þan afnimada af im sa brūþfaþs. *Mark* 2:20
But the days will come when the bridegroom is taken from them.
Jah jabái gards wiþra sik gadáiljada... *Mark* 3:25
And if a house is divided against itself...
jah þu, barnilō, praúfētus háuhistins háitaza... *Luke* 1:76
and you, child, shall be called a prophet of the Highest...
uha haite (Old Norse, Kragehul spearshaft)
I am called Ūha — My name is Ūha

Oddly, the active forms of ON *heita* have taken on the middle meaning in the other dialects, but the middle form in Old English *hǽtte* has not been maintained.

Ingolfr hét maðr nórœnn. *Íslendingasaga* 1
Ingolf was the name of a northern man.

Similarly in Modern German, for example: *Er heisst Wilhelm* 'His name is William' from 'He is called William'. We therefore assume the form for Proto-Germanic and also conclude that the middle survived into Proto-Germanic.

The shift in use of the middle to the passive, and the increased use of the passive in the Germanic dialects as well as in the other Indo-European dialects, is in accordance with the shift of late Proto-Indo-European as well as the dialects from active structure to transitive structure. Some residues of the earlier structure are maintained in Gothic, as in the intransitive use of transitive verbs like *dáupjan* 'baptize, wash' and *bimáitan* 'circumcise'. Streitberg (1920:191-192) cites examples of such use in translations of Greek middle forms, e.g. *Mark* 7:4 *niba daupjand* for the Greek middle form *baptísōntai* 'unless they wash [themselves]', an alternate form in the passage for *hrantísōntai* 'they sprinkle themselves'.

Another residue of the earlier contrast is the distinction in Gothic between perfective forms with *ga*-prefix in contrast with the imperfective use of the simple verb as treated by Streitberg (1920:196-198), where he cites among examples the passage on the death of Lazarus in *John* 11:11: *Lazarus ...gasaízlēp* 'Lazarus has fallen asleep / is sleeping' for the Greek with its middle form: *Lázarus ...kekoímētai*.

Instead of the forms with *ga*-prefix, the other dialects make use of reflexive pronouns, as in the following Old High German clause:

gurtun sih iro suert ana *Hildebrandslied* 5
they girded (for themselves) their swords on

In Old Norse the combination of reflexive pronoun and verb has given rise to a new inflection, with *-mk* suffixed in the first person singular and *-sk* in all the other persons. The forms have various uses, from reflexive and reciprocal to middle and passive, as in the following examples:

- Reflexive: þeir setiask niþr they set themselves down
- Reciprocal: spyriask þeir tíþenda they asked one another the news
- Middle: hann sagþesk ekke hafa he said he had nothing
- Passive: skip búask the ships were prepared

Often the forms in *-sk* correspond to simple verbs in English, for example:

Þá sættusk þeir á þat... *Íslendingabók* 1
Then they agreed on that...
ok hafði allt farizk vel at... *Íslendigabók* 5
and everything had fared well...

Passive meaning was expressed chiefly by compound forms consisting of auxiliaries accompanying the past participle. The auxiliaries vary. In Old Norse the auxiliary was *vera*, as in the following sentence from the section in *Libellus Islandorum* on the introduction of Christianity:

Þá var þat mælt... Then it was announced...

And a few lines later in the present tense:

es kallaþr es Vellankatla which is called Vellankatla

Passive forms with the auxiliary *werden* that is currently used in German to form the passive are attested in the early Old High German works like *Muspilli*, as in the subjunctive form in line 12:

ze uuederemo herie si gihalot werde
to which group it (the soul) will be taken

Also in the corresponding indicative present form in line 39 with future meaning:

denne uuirdit untar in uuic arhapan.
then a battle will be raised among them

The corresponding auxiliary is also used in Old English to make the passive with transitive verbs, as in *Beowulf* 6-7:

egsode eorl[as] syððan ǣrest wearð fēasceaft funden;
he terrified warriors since he first was found wretched;

But a few lines later in line 12 the auxiliary *wesan* was used, as in later English. It is used with both intransitive and transitive verbs:

Ðǣm eafera wæs æfter cenned
To them an heir was later born

In view of the several auxiliaries in the dialects, we may assume that the compound passive forms were developed after Proto-Germanic. In the proto-language both passive and middle meanings were expressed by reflexes of Proto-Indo-European middle forms. But the forms were maintained only in Gothic, and as shown in section 3.8, they were replaced by compound forms in the other dialects.

5.6. Expression of Tense and Aspect

The two Proto-Germanic indicative tenses, present and preterite, primarily expressed present and past time, as in citations provided earlier such as *Vǫluspá* 64: *Sal ser hon*... 'He sees a hall'; and the *Gallehus* inscription *...tawido* '(I) made'. When subjunctive forms are used in accordance with clause structure of subordinate clauses, they may also express present and past action, as in *Beowulf* 452 cited above: *gif mec hild nime* 'if the battle should take me' as a general statement rather than expression of a future action, and in the Gothic *Mark* 5:17 with its expression of past time: *Ni hugjeiþ ei qemjau gataíran witōþ*... 'Do not think that I came to destroy the law...'

The present tense is also used to express future time, as in Gothic, *Mark* 2:20: *aþþan atgaggand dagōs*... 'but the days will come...'

While tense is the primary meaning expressed by inflections of verbs, residues of aspect are also attested, though chiefly with verb forms prefixed with *ga-*. For example, the form of *feallan* in *Beowulf* 2100 clearly indicates completed action of the wounded Grendel:

mōdes geōmor meregrund gefēoll
sorrowful in mind he fell to the bottom of the sea

By contrast, the unprefixed forms in line 772 express continued action:

Þā wæs wundor micel, þæt se wīnsele
wiðhæfde heaþodēorum, þæt hē on hrūsan ne fēol,
That was a great wonder, that the winehall
withstood the brave battlers, that it was not falling to the ground,

The contrast is evident in other verbs as well, such as *bīdan* 'wait, stay, remain' versus *ge-bīdan* 'live to see, experience'.

The contrast is also attested in Gothic, but less frequently; cf. *háusjan* 'hear', *gaháusjan* 'perceive'; *saihʷan* 'see', *gasaihʷan* 'catch sight of', as in *Matthew* 11:4:

Gaggandans, gateiheiþ Iohannē þatei gaháuseiþ jah gasáihʷiþ.
Going, tell John what you perceive and notice.

In High German the use of the prefix leads to more extensive contrasts, as in Middle High German *bern* 'carry', *gebern* 'give birth', and also further in present-day German

bieten 'offer', *gebieten* 'command', *fallen* 'fall', *gefallen* 'fall to someone's share, please'. While past participles indicate completed action in Old Norse, they are not prefixed by an equivalent to *ga-*, nor is the prefix used before other forms of verbs.

We may conclude that the distinction between imperfective and perfective aspect was maintained into Proto-Germanic, and was expressed by means of the *ga-* prefix, but that it was primarily expressed in the past participle, also when this was not prefixed as in Old Norse.

5.7. Expression of Uncertainty and Modality

Uncertainty was expressed in the early dialects by verb forms in the subjunctive, and modality by some of the modal auxiliaries, which however are wider in scope, as shown below.

As noted above, the Germanic subjunctive is formally a reflex of the Indo-European optative; reflexes of the Indo-European subjunctive forms are not attested. A typical means of expressing uncertainty is found in indirect questions, with the subjunctive form *wāri* in the *Hildebrandslied* 8b, also cited in section 5.2.

Her fragen gistuont
fōhem wortum, hwer sin fater wāri
He began to ask
with few words, who his father might be

The subjunctive is also widely used in other subordinate clauses when indication of greater uncertainty is intended, as Heusler (1920:131) points out for Old Norse in the contrast between the indicative *vill finna hann* 'wants to speak with him' and the subjunctive *vile finna hann* 'would like to speak with him'.

Conjunctions introducing subordinate clauses developed independently in the different dialects, as their forms indicate; *jabai* 'if' introduces conditional clauses in Gothic, *ef* in Old Norse, *gif* in Old English, *wenn* in Old and New High German. We may then further assume that, in Proto-Germanic itself, the conditional clause did not need an initial conjunction, as is still possible in the current languages, e.g. 'Should your right eye offend you...' Its initial position may be supported by examples in Gothic, e.g. *Matthew* 5:29:

Jabai augo þein þata taihswo marzjai þuk, ustagg ita
If your eye, the right one, offends you, pluck it out.

But in later prose texts the conditional clause frequently follows the main clause, as in this sentence from Ari's *Libellus Islandorum*:

Sagði at honum þótti þá komit hag manna í ónýtt efni, ef menn skyldi eigi hafa allir lǫg ein á landi hér.
He said that it seemed to him that the affairs of men would come to an evil plight, if all men would not have one law in the country here.

Shorter expressions may also be inserted in the middle of sentences, such as the formula used twice in *Beowulf*:

gif mec hild nime 452, 1481
if the battle should take me

Constructions in which uncertainly is expressed by subjunctive forms include *that*-clauses, for which different conjunctions are found in the various dialects. In Ari the missionary's account, Thangbrand uses the preterite subjunctive of the auxiliary *mono* 'become' in his report to Olaf Tryggvason concerning the possibility of success in introducing Christianity to Iceland:

lét ørvǽnt, at hér myndi Kristni enn takask.
left it hopeless that Christianity might ever be accepted here.

Modal auxiliaries, like the form of *mono* used here, are reflexes of roots that are treated as full verbs in other Indo-European dialects; cf. Go. *wiljan* 'want, will', with cognates in the other Germanic dialects, based on the Indo-European root **wel-*, from which regular verbs are formed in other dialects, such as Skt *vṛnīté* 'chooses', Lat. *velle* 'wish'. They filled the role of the Indo-European subjunctive, which did not survive in Germanic. It is difficult to account for the process of replacement, given the absence of continuous texts. We can simply state that they were treated like auxiliaries, as exemplified in the sections below.

Various uses of modal auxiliaries are cited below, with their meanings.

5.7.1. Expression of Possibility

Among the modalities, possibility is expressed by the auxiliaries *magan* and *kunnan*, as in Bede's account of the poet Caedmon's response to the man who appeared to him in a dream and asked him to sing something:

Ne con ic nōht singan. I can't sing anything.

But the man replies:

Hwæðre þū meaht mē singan. But you may sing to me.

A comparable use in the preterite indicative may be cited from *The Voyages of Ohthere and Wulfstan*, where Ohthere tells King Alfred:

Þā fōr hē þā gīet norþrihte swā feor swā hē meahte...
Then he traveled further northward as far as he might...

A use of the preterite subjunctive of Old Norse *mono* was cited above; another occurs somewhat later in the account, when Gizarr contradicts Thangbrand about the possibilities for Christianity in Iceland, saying that there is no other expectation...

an þar myndi hlýða.
than that it would succeed there.

5.7.2. Voluntative Expressions

Forms of *willan* are used to express wishes or desires, as in the *Hildebrandslied* 40b:

wili mih mit dinu speru werpan
you want to strike me with your spear.

And similarly in the often quoted couplet from the Old Icelandic account of the introduction of Christianity:

vilk at goð geyia, I don't want to bark at a god,
grey þykkjumk Freyia. (but) Freyja seems to me to be a bitch.

The preterite has the same meaning, as in an example from *The Voyages of Ohthere and Wulfstan*:

Hē sæde þæt hē æt sumum cirre wolde fandian...
He said that at some time he wanted to try to find out...

5.7.3. Expression of Obligation or Necessity

Obligation or the somewhat stronger notion of necessity is expressed by the auxiliary *skulan*, as in the question of Caedmon:

Hwæt sceal ic singan? What should I sing?

Numerous examples are found in the account of Christianity coming to Iceland, such as

aller menn skylde kristner vesa
all men should be Christians

Similarly, in the *Hildebrandslied* 27, Hadubrand says:

mit geru scal man geba infahan
With a spear one should receive gifts

5.7.4. Expression of Causation

Causation is expressed by the use of *lātan* as auxiliary, as in this sentence from the *Heimskringla* dealing with Haakon the Good:

Aþalstein konungr lét skíra Hókon ok kenna rétta trū ...
King Adalstein had Haakon baptized and taught the correct faith...

The same pattern with an infinitive is found in the *Hildebrandslied* 63:

do lettun se ærist asckim scritan
then they first caused their lances to glide forth

5.7.5. Expressions of Command

The imperative generally indicates commands, as in the account of the poet Caedmon:

Berað mē hūsl tō. Bring me communion.

Similarly, in the Old High German *Wessobrunner Gebet*:

Forgip mir in dino ganada rehta galaupa Give me in your grace correct belief

And in the Old Norse story of Auþun and his polar bear:

kom þā til mīn come then to me

Other modal auxiliaries have been listed in section 3.8 among the preterite-presents. Syntactically their uses are comparable to those of the modals exemplified here.

5.8. Sentence Adverbials

Adverbs are very prominent in the early texts. Examples from poetry illustrate that prominence. They often fill the third accent in the poetic line, as in *Beowulf* 31:

lēof landfruma lange āhte.
The beloved king had long ruled.

Formed with various suffixes, they referred to time, place and manner. Those with a nasal suffix indicated action away from a point, as in *Beowulf* 91:

Sægde sē þe cūþe
frumsceaft fīra feorran reccan,
He said, he who could
tell the origin of men from far in the past,

Those with an *-r-* suffix often indicated action to a point, as in *Beowulf* 370:

sē þǣm headorincum hider wīsade.
who those warriors directed hither.

Adverbs of manner were based on various suffixes, some with *u*-stems, as is still clear in OE *gearwe*, as in *Beowulf* 265:

gamol of geardum; hine gearwe geman
old in years him readly recalls

Klaeber pointed to a notable feature in the use of adverbs of place (1950: xciii). They often provide "instructive instances of the characteristic fact that in the old Germanic languages the vivid idea of 'motion' was predominant in many verbs which are now more commonly felt to be verbs of 'rest'." One of the passages he cites is *Beowulf* 1805b and 1806:

wolde feor þanon
he wished far from there

cuma colenferhð cēoles nēosan.
visitor bold ship seek
the bold visitor
wished to fare afar in his faithful ship, (R.P.M. Lehmann, *Beowulf* 1988:69).

In other passages, *nēosan* simply means seek. Here the adverb *þanon* clearly prompts an interpretation of activity. Another example involves the verb 'to shine', indicating the sun's activity in directing its rays *from* the south rather than *in* the south.

sunne sweglwered sūþan scīneð! *Beowulf* 606
the sun, clothed in radiance, shines from the south!

Examples from Old Norse illustrate similar prominence, though those given here from Ari's *Libellus Islandorum* accompany verbs indicating activity.

Ingólfr hét maðr Norrœnn, er sannliga er sagt at fœri first þaðan til Íslands...
Ingolf was the name of the Norwegian man, who accurately is said to have traveled first from there to Iceland...
Eiríkr ... hét maðr, er fór út heðan þangat...
Eric was the name of a man who traveled out from here to there...
En svá er sagt, at þat bæri frá, hvé vel þeir mæltu.
And thus it is said, that that was wondrous, how well they spoke.

The various adverbs need little comment, but it is clear that they are introduced to make statements more explicit, such as *sannliga* in the first example above, and even more so *svá* in the last. Similarly the adverbs indicating movement! And the adverb meaning 'from, concerning' with the verb *bera* 'to bear' has led to an idiom. It is also clear that adverbs like *út* and *frá* may be comparable to particles.

We may ascribe both the prominence of adverbs and their promotion of activity with verbs indicating place to their position at the Active-Stative stage of the proto-language. During that stage they were particles, or like OE *súþan* they consisted of suffixed nominals that qualified verbs. Relationships in the sentence were determined by agreement rather than transitivity so that relationship of nominals as well as particles to verbs resulted from semantic correspondence. As Proto-Germanic became an accusative language, the nominals either were interpreted as nouns with inflections or as adverbs. In the course of time the adverbs became less prominent and the basic elements of the predicate were nouns in various roles.

5.9. The Germanic Sentence Structure and its Development

The early texts, such as the runes, indicate clearly that the order of Proto-Germanic sentences was OV, as also in Proto-Indo-European. Moreover it was highly paratactic, as the first two lines of the Eggja stone illustrate; the stone is dated around 700 A.D., indicating that parataxis was long in force. It is given here in conventional Old Norse notation, with a gap indicated in parentheses. The two last lines have gaps so that they consist of phrases rather than sentences; the forms are modified in accordance with standard Old Norse (Krause 1966:227-235):

Ni's sólo sótt ok ni saxe stæin skorenn; ni (læggi) manna nækðan, niþ rinnR ni viltiz mænnz læggi a[b].
It is not struck by the sun nor is the stone scored with a knife. No one should lay it out uncovered, when the moon wanders (over the sky) nor should wild men lay [it aside].

Other early texts, as late as Ari's *Libellus Islandorum* of approximately 1120-1133 A.D., are also largely paratactic.

But modifications were introduced, as by relative clauses. In the Tune stone of around 500 A.D., apposition was used to qualify a noun as in many later Germanic texts; the text is given in Old Norse as by Krause (1966:162-167):

þrijoz ðohtriz ðalidun arbija arjostez arbijano
Three daughters shared the inheritance, the closest relatives of the heir

It would then have been a small matter to modify the apposition to a relative construction, such as those in *Beowulf* where the relative clauses follow their referent, an assumption supported by introductory particles (e.g. OE *sē*, Go. *ei*, ON *es*) that were associated with demonstrative pronouns as in Ari's sentence on the discovery of Greenland:

Land þat er kallat er Grœnland fannsk ok bygðisk af Íslandi.
The land that is called Greenland was found and colonized from Iceland.

Subsequently, specific relative pronouns were introduced, as were conjunctions. Auxiliaries became common, as in this quotation, also for expressing the passive and modalities. Such innovations are in keeping with the gradual shift from OV to VO structure. The dialects, therefore, came to differ considerably from Proto-Germanic in their sentence structure.

VI. SEMANTICS AND CULTURE

6.1. The Culture of the Speakers of Proto-Germanic

The semantic system of a language is closely connected with the culture of its speakers. Segments of the language, like words for the manner of living and for the kinship system, correspond to their way of life. We then are fortunate if we have accounts of the culture of speakers of proto-languages, even though the semantic system must be determined on the basis of the language.

Julius Caesar has included such an account of the Germans around 55 B.C. in Book 6 of his *Gallic War*. Tacitus presents much the same information in his *Germania* of a century and a half later. From Caesar's account we can conclude that the *Germani*, as he calls them, were still largely hunter-gatherers in the first century before our era. Their chief activities were hunting expeditions and military pursuits. When they were at peace

they had no overall ruler, but only chiefs of smaller entities that carried out justice. Like many simple societies they welcomed guests, sharing their food and housing with them.

6.1.1. Religion

Our knowledge of their religion or religions is based most directly on information gleaned from the accounts of Caesar and Tacitus. According to Tacitus in his brief section 9, they worshipped especially Mercury, his Latin for Wodan/Odin, Hercules for Thor, and Mars for Tiu. But they did not believe it worthy to enclose them in temples or to fashion images of them like men; rather, they dedicated woods and clearings to them. Caesar had stated that there were no priests, but the statement is assumed to result from his observation that there was no such official rank, because Tacitus refers to priests who functioned in several activities. In section 40 he states that a priest alone may touch the sacred wagon that transports Nerthus, i.e. mother earth, among the Lombards and various other tribes. In section 43 he states that a priest in women's clothing is in charge of a wood that is an ancient shrine. And in section 45 he remarks that the tribe of Aestii venerate the mother of the gods — *matrem deum venerantur* - and also display the sign of their cult with images of boars; these are to protect them from all dangers.

The equations with Roman gods are maintained in our names of the days of the week: Tuesday honoring Tiu, Wednesday Wodan, Thursday Thor, and Friday, with the goddess Freyja representing Venus. No divine figure is represented in Sunday and Monday, and no one replacing Saturn in Saturday. It has been proposed that these continue beliefs of the Indo-European period, with Odin and Tiu representing sovereignty, Thor representing physical strength, and Freyja substituting for Nerthus representing fertility (Polomé 1989:73-82). Further inferences have been based on Scandinavian rock carvings from the Bronze Age, which imply reverence for the sun, or even a sky-god like Zeus or Jupiter, cf. the Trundholm depiction of a chariot drawing the sun, or other depictions along with ships and human figures.

Unfortunately, there is no description of religious practices in the literary remains of Gothic or the West Germanic languages, and those in the North Germanic languages are late. References in the Eddic poems and other texts may provide only partial retentions from the Proto-Germanic period, and our knowledge of religion and religious practices among Germanic peoples is accordingly scanty.

6.1.2. Economic and Personal Practices

According to Caesar the Germans observed strict social rules. They did not have intercourse before their twentieth year. Many of them regarded sexual abstinence as contributing to stature and strength. Yet their clothing did not cover them well and they associated freely, as in bathing together in the rivers, so that sexual activities might have readily been encouraged. Tacitus is somewhat more specific on their clothing in *Germania* 17, describing the general costume as a cloak held together with a clasp or even a thorn; the cloak might consist of the skins of animals. Only the richest had underclothing, and this was tightly bound so that it revealed every member. Women were similarly clothed, often however with a linen cloak decorated with purple stripes. Their garments had no sleeves, so that their arms and the neighboring parts of their breasts were exposed.

They did not stress horticulture. The bulk of their food consisted of milk, cheese and meat; Tacitus included apples. Individuals did not own property. Land was assigned every year by magistrates and chiefs when the *gentes* (tribes) and *cognationes* (clans) assembled; it then was passed on to others in the next year so that the *plebes* (common people) would be equal in wealth. Caesar gives further reasons for the practice, including the aim of avoiding encouragement of a preference among the people for agriculture rather than for warfare.

Their settlements were on the edge of the Hercynian forest, which extended far to the east; Caesar states that they had found no German who had gone to the end of it; moreover, he assumed that the end could not be reached in sixty days. He went on to describe three animals that inhabited the area and differed from animals known elsewhere. One, an ox shaped like a stag, is assumed to be the reindeer; two others he called *alces*, presumably elk, and *uri*, aurochs. The Germans hunted these for food. They also collected the horns of the aurochs and encased the edges with silver to produce elegant drinking vessels.

For reconstructing the culture of the Proto-Germanic speakers we then must recognize that, even before the time of the first written materials in the Germanic languages, the culture and accordingly the semantic system had undergone changes by influence from other cultures, first Celtic, then Latin, and to some extent Greek through missionaries. Evidence for such a cultural change that may be determined from borrowing is the word for iron, which has various representatives in the Germanic dialects: Go. *eisarn*, ON *járn, ísarn*, OE *īsern, īren*, OHG *isarn, īsan, īser*. Because of the various forms it is assumed that these were taken from Celtic, as in the Gaulish name *Isarno-duru*, at various times in the first millennium B.C. Among early borrowings from Latin is the term for donkey, Go. *asilus*, OE *esol*, OHG *esil*, probably from *asellus*, the diminutive of *asinus*. Some religious terms may have been introduced before the time of writing and then maintained in the later texts. They often differ from dialect to dialect, so we assume that most of the religious terms and also borrowings from Greek and Latin were introduced into the individual dialects rather than into Proto-Germanic.

6.2. The Kinship System and Family Structure

The kinship terminology that was inherited from Proto-Indo-European indicates that the family was patrilineate, that is, the system was of the Omaha type. The terms for the nuclear family are well attested, as illustrated here with representatives from Gothic, Old Norse and Old English. They indicate that the family system reflected in the terms of the parent language was maintained through the Germanic period to the early dialects. But additional terms, especially in Gothic, suggest that modifications were being introduced in the system.

As demonstrated by Go. *heiwa-frauja* 'master of the family', the father was head of the family: Go. *fadar*, ON *faðir*, OE *fæder*, cf. Skt *pitár-*. The reflex of the Indo-European term for the mother is not attested in Gothic, though it is the term in the other dialects: ON *móðr*, OE *mōdor*, cf. Skt *mātār-*. The term for son is well attested in all the dialects: Go. *sunus*, ON *sunr*, OE *sunu*, cf. Skt *sūnú-*; and similarly the term for daughter: Go. *dauhtar*, ON *dóttir*, OE *dohtor*, cf. Skt *duhitár-*, as well as the term for brother, except in Gothic: ON *bróðir*, OE *brōðor*, cf. Skt *bhrāta-*, and for sister: Go. *swistar*, ON *syster*, OE *sweostor*, cf. Skt *svasa*r-.

Terms for father's brother, comparable to the term for 'father', are attested in West Germanic dialects: OE *fædera*, OHG *fatureo*, cf. Skt *pítṛvyas* 'uncle' and OE *faðu* 'aunt'. The terms for nephew and niece, though not attested in Gothic, are well attested in the other dialects: ON *nefe*, OE *nefa*, OHG *nevo*, cf. Skt *nápāt* 'nephew' and ON *nipt*, OE *nift*, OHG *nift*, cf. Skt *naptī* 'niece'. Terms have also been maintained for father-in-law: OSwed. *svēr*, OE *swehor*, OHG *swehur*, cf. Skt *Śvaśuras*, and for mother-in-law: Go. *swaihra*, ON *sværa*, OE *sweger*, OHG *svigur*, cf. Skt *śvaśruṣ*. Reflexes of the Proto-Indo-European term **awos* for grandfather are attested, though as in Lat. *avus* 'grandfather, uncle' also with other meanings, as in ON *afi* 'grandfather', OE *ēam*, OHG *ōheim* < WGmc *awa-haima-* 'uncle'; cf. also Gothic dative singular *awon* 'grandmother'.

In addition to these terms, a number of parallel terms are attested that have raised questions regarding their origin and also possible modifications in the family structure during the Germanic period. Among these is the word for mother that replaced the Indo-European term in Gothic: *aiþei*, attested also in ON *eiða*, MHG *eide*. It may well be related to the word for oath, Go. *aiþs*, ON *eiðr*, OE *āþ* 'oath', which has been assumed to be borrowed from Celtic, as in OIr. *ōeth*. Among assumed reasons for the new word for mother is the introduction of a legal view of the relationship in marriage, possibly through Celtic influence.

While such an explanation is theoretical, terms for master and mistress of the household were introduced beside the relationship terms, as in Go. *gardawaldands* 'master over the household', *heiwa-frauja* 'master of the family', in addition to the simple terms: OHG *hī(w)o* 'husband', *hī(w)a* 'spouse'; ON *hȳ̧ski*, OHG *hīwiski* 'household, family'. Among other terms based on PGmc *hīwa-* 'member of a family', are OE *hī-red*, MHG *hī-rat*, NHG *Heirat* 'marriage'. Unlike the kinship terms, which refer to lineal relationships, these terms have a legal basis, from which we may conclude that marriage had become formalized in Germanic society.

Terms associated with *aiþei* with an implied relationship through marriage include Go. *megs* 'son-in-law' and, in the other dialects, a male related through marriage: ON *māgr*, OHG *māg*. The implication has increased interest because, when Mary addressed her son Jesus in Luke 2:48, rather than *sunus* she used the term *magus*, the term also used for a servant, as in ON *mǫgr*, OE *mago*, OS *magu*, OHG *maga-*. The cognates for girl have a similar connotation, as in Go. *mawi*, ON *mær*, OE *meowle*. The terms have derivatives, such as Go. *magula* 'little son', Go. *mawilo* 'little/dear girl', and also a compound in the *Beowulf* 2931 *gomela iōmēowlan* 'aged woman'. It is assumed that these terms were introduced into Germanic from Celtic with the aim of distinguishing the sons and daughters of the immediate family from those of servants. They have no ready Indo-European etymology. Among suggestions on their origin is an unidentified matriarchal society because of the implications noted for the first terms exemplified in this paragraph.

Whatever the source of the additional terms, we can conclude that the family rather than a larger political unit was the basic social group. The basic ties of an individual were to his family, in which he was completely acceptable: Go. *frijonds*, ON *frændr*, OE *frēond*, OHG *friunt*. A member who had not transgressed against the rules of the household was in good standing: ON *hýrr*, OE *hēore*, MHG *gehiure*, Go. **-hiuri* 'friendly'. And transgressors owed some form of recompense: ON *bōt*, OE *bōt*, OHG *buoz* 'compensation'. If the transgressor failed to provide recompense, a sanction was

imposed on him, the most serious of which was expulsion from the family. The expelled member was regarded as an outlaw or a wolf: ON *vargr*, cf. OE *wearh*, OHG *warg* 'villain', and he might be freely killed.

6.3. The Household

Tacitus in chapter 16 of his *Germania* informs us that the Germans did not form villages but rather lived in isolated homesteads. The terminology for dwellings bears this out. The general term ON *heimr*, OE *hām*, OHG *heim* means house or home. It is found only in the accusative plural in Gothic, where *haimos* in *Matthew* 9:35 translates the Greek word for village, and in *Mark* 5:14 the word for country; its two compounds in Gothic, both also in the plural, are translated home: *afhaimjai* 'away from home' and *anahaimjaim* 'at home'. Derived from the same root PIE *key-* 'lie', as is also Go. *heiwa-* cited above, it has no direct etymon in the parent language, but it is related to OIr. *cōim* 'dear', Latvian *sàime* 'family'. Similarly Go. *þaurp* 'land, lived-on property' is the translation for Gk *agrós* 'land', much like ON *þorp* 'farm, estate'; only in the later West Germanic texts does its cognate mean 'village' as in OE *þorp*, OHG *dorf*. Go. *weihs* 'village' similarly translates *agrós*. To translate the Gk *pólis* 'city' a word of uncertain origin is used, Go. *baurgs*; it is also used to translate Gk *báris* 'tower', comparable in this use to ON *borg* 'height, wall, castle, city', and OE, OHG *burg* 'fortified place, castle, city'.

Tacitus' account of isolated houses rather than villages is also supported by the term ON *tūn*, OE *tūn* 'farmstead' that in OHG *zūn* has maintained the earlier meaning 'fence, hedge'. Similarly, Go. *gards* 'house' with the related verb **bi-gaírdan* 'gird' apparently refers to a building on fenced property, as supported by ON *garðr* 'hedge, garden, court' and OE *geard*, OS *gard* 'enclosure'. A new formation in Old Norse, Old English and Old High German, *hūs*, cf. Go. *gud-hūsa* 'temple', is obscure in origin, but if derived from PIE *kewH-, kū-* 'cover' it also indicates a humble building. This statement is supported by the meanings of ON *salr* 'house, room', but 'ground, soil' in the *Vǫluspá*; cf. also OE *sæl*, OHG *sal* 'dwelling, room'. Other terms support Tacitus' report on underground quarters covered with dung for refuge in the winter as well as for a storehouse: ON *kofi*, OE *cofa* 'hollow in a rock, room', MHG *kobe* 'stall', which are cognate with Gk *gúpē* 'cave, hut'. The relatively large number of terms seems to suggest that new designations were introduced as the type of dwelling was modified from the early one-room house, probably wattled, lacking windows and furniture. When references were made to villages, a term borrowed from Lat. *vīcus* was introduced, Go. *weihs*, OE *wīc*, OHG *wīch*. Similarly, as noted above, a designation for city was adapted from a term meaning 'tower'.

6.4. Construction

The indication of simple structures is paralleled by the terms for building. Some of these are based on the word for timber: PGmc *tem(b)ra-*, ON *timbra*, OE *timber*, OHG *zimber* 'building, material', which in turn is based on the Indo-European root **dem-* 'join, construct'. Denominative verbs are attested in Go. *timbrjan* 'build, strengthen', OE *timbrian*, OHG *zimbaren*. But the terms for the builder vary, as in Go. *timrja*, ON *trēsmiðr*, OE *trēowyrhta*, OHG *zimbarman*, suggesting that the process of more complex building developed independently in each of the dialects. Moreover, the absence of a reflex of the Indo-European word for 'carpenter' and 'artisan', as in Skt

takṣan, Gk *téktōn*, we may assume that there was no technical specialist for building but that every householder built his own structures.

Terms for components of buildings also suggest simple construction. The term for wall, Go. *-waddjus*, ON *veggr* is based on the reflex of PIE *wey-* 'turn, bend as in wattling'; from it we may assume that woven reeds were at one time used to produce walls. The term for roof, ON *þak*, OE *þæc*, OHG *dah* suggests a thatch covering. And the door may have been made of wickerwork, as indicated by Go. *haurds*, ON *hurð* 'lattice (door)', cf. OHG *hurt* 'wickerwork'. Although reflexes of the Indo-European word for door, **dhwer-*, are found in OE *duru* and OHG *turi*, other terms indicate that the door was primitive, such as OE *geat* 'gate', cf. ON *gat* 'hole' and ON *hlið* 'gate', OE *hlid*, OHG *hlit* 'cover'. Terms for lock and key vary in the dialects, so that we assume they were introduced only late, like the terms for window: Go. *augadauro*, ON *vindauga*, OE *eagduru*, OHG *augtora*. Similarly, the words for devices to eliminate smoke vary, as in ON *ljōri* 'opening in the roof (for light)', later *reykberi*, ME *chimney*, OHG *scorenstein*. A word for 'hearth, fireplace' is not attested in Gothic, but the Old Norse term *arinn* is cognate with Lat. *āra* 'altar'; OE *heorþ* and OHG *herd* are cognate with Go. *haúrja* 'burning coals', ON *hyrr* 'fire'. These support the Roman writers who described the houses of the Germans as simple rectangular, box-like structures, made of wood rather than bricks or stone. There were apparently several such structures on a homestead, as stated above, and it may have been enclosed with a hedge, making it distinct from other homesteads.

The simple dwellings probably had few furnishings, among them seats and tables, for as Tacitus reports in *Germania* 22: "each has a separate seat and his own table," cf. Go. *sitls*, OE *setl*, OHG *sedhal* 'seat' and Go. *stōls*, ON *stōll*, OE *stōl*, OHG *stool* 'chair'. The early word for table: Go. *biuþs*, ON *bjōð* 'table, bowl', OE *bēod*, OHG *piot*, was later replaced to some extent by ON *diskr*, OE *disc*, OHG *tisc*, from Lat. *discus*. The various terms for bed, as well as their origins, suggest little more than a dug-out place: Go. *ligrs*, OE *leger*, OHG *legar* 'couch, grave', cf. Gk *lékhos*, and *badi*, OE *bedd*, OHG *betti* and also ON *rekkja*, *sæing*.

6.5. Occupations

As we have noted above concerning the words for 'builder', terms for specialized occupations are late, developed in the dialects rather than in Proto-Germanic. At one time a man might be referred to as a worker in the fields, Go. *waúrstwja*, ON *akrmaðr*, OE *æcerman*, OHG *accharman*. In another reference he might be referred to as a settled landowner: ON *bōndi*, OE *gebūr*, OHG *gibūro*.

The progression to specialization may be illustrated with the word 'smith'; created in Germanic, possibly from reflexes of the Indo-European root *smey-* 'work with tools', its basic meaning may have been 'producer' — cf. the Gothic verb **ga-smiþon* 'produce': Go. *-smiþa*, ON *smiðr*, OE *smið*, OHG *smid*. It is attested in Gothic only in the word *áiza-smiþa* 'coppersmith'. As a simplex in Old Norse it means 'worker in wood or metal', but it is also an element of the compound *ljōðasmiðr* 'song-smith', as of compounds in OE *wīgsmið* 'battle-smith' and OHG *urteilsmid* 'judgment-smith'. Such terms were apparently created to suit a given context but may not have survived to later stages of the language.

Terms for tradesman are late. The general term for 'merchant' postdates contacts with Latin: ON *kaupmaðr*, OE *cēapman*, OHG *koufman*. The term for 'shoemaker' is similarly late: ON *skōari*, OE *skohere*; the Old High German term *sūtāri* is based on Lat. *sūtor* 'shoemaker'. Other terms are based on Celtic, such as those for 'physician': Go. *lēkeis*, OE *læce*, OHG *lāchi* and the refashioned ON *læknare*, cf. OIr. *liaig* 'physician'. Celtic was the source for terms referring to wider authority than that of the father, such as Go. *reiki*, ON *rīke*, OE *rīce*, OHG *rīhhi* for a man in authority, and similarly for his sphere of influence, as in Gothic dative singular *reikistin*, ON *rīke*, OE *rīce*, OHG *rīhhe*, cf. OIr. *rī, rīg* 'king'. Similarly, the terms for servant, Go. *ambahti*, OE *ambeht*, OHG *ambaht*, ON *ambātt* 'maid', cf. Gaul. *ambactus* 'servant'. We may also assume that legal arrangements for inheritance were late; the term for it, as well as those for 'heir', is apparently based on Celtic, cf. OIr. *orbe*: Go. *arbi* 'inheritance', ON Runic *arbija*, OE *ierfe*, OHG *arbi*; ON *arfr*, OE *eafora*, OHG *erpo* 'heir'. As noted before, the Germans were influenced by the Celts as early as 800 B.C.; if Proto-Germanic terms had existed previously for occupations and situations treated here, we have no direct evidence.

6.6. The Economy

6.6.1. The Numerals

The numerals that can be reconstructed for Proto-Germanic provide some insight into the economy of the period. As the lists below indicate, the cardinal numerals from one to ten can readily be reconstructed. Those for eleven and twelve, as illustrated by the Gothic forms *ainlif* and *twalif*, are comparable to those in Lithuanian: *venúolika* and *dvýlika*, literally 'one/two left over'; they are clearly innovations in these two dialects. The remainder of the teen numerals as well as those to sixty may well only be innovations in Germanic, e.g. Gothic *fimftaihun* 'fifteen' and *fimf tigjus* 'fifty'. This pattern for the decades was continued in Old Norse, e.g. *ellefo tiger* 'one hundred and ten'. But for one hundred and twenty, Old Norse has the form *hundraþ*, making use of *hund*, which is the basis of the numerals in the other dialects, e.g. Go. *taihuntēhund*, OE *hund tēontig*, OHG *zehanzo* 'one hundred and twenty'. We may conclude that the Germanic speakers maintained the simple economy of the Indo-European culture for some time, but gradually expanded it, leading also to expansion of the numeral system.

To illustrate the conservatism of the lower numerals, forms from other dialects are given, as for 'four' and 'five', to provide evidence on the position of the accent, which enabled application of Verner's Law. For Germanic, only forms of the masculine are given for the numerals 'two' and 'three'. Details on the development of the individual forms are left to the grammar of the dialects.

	PIE	**Lat/Gk/Skt**	**PGmc**	**Go.**	**ON**	**OE**	**OHG**
1	oinos	Lat. ūnus	ains	ains	einn	ān	ein
2	dwo-	Gk δύο	twa-	twai	tveir	twēgen	zwēne
3	treies	Skt tráyas	þreis	þreis	þrír	þrī	drī
4	kwetwōr	Lat. quattuor	fidwōr	fidwōr	fiōrer	fēower	fior
5	penkwe	Gk πέντε	fimf	fimf	fimm	fīf	fimf
6	seks	Lat. sex	sehs	saíhs	sex	siex	sehs
7	septm	Lat. septem	sibun	sibun	siau	seofon	sibun

8	oktō	Lat. octō	ahto	ahtáu	ātta	eahta	ahto
9	newn	Lat. novem	niun	niun	nío	nigon	niun
10	dékm	Lat. decem	tehan	taíhun	tío	tīen	zehan

The ordinal numerals are for the most part based on the cardinals, and consequently provide no additional information on Germanic culture.

6.6.2. The Way of Life of the Germanic Peoples

In keeping with the statements of Roman overseers about the life of the Germans, they had terms for the common animals that were continued from Proto-Indo-European, as representative terms in the dialects and their Indo-European etymon indicate, e.g.:

- ON *kyȳr*, OE *cū*, cf. *cow*, OHG *kuo*, PIE *gwōus* 'cow';
- ON *ær*, OE *ēowu*, cf. *ewe*, OHG *ou(wi)*, PIE *owys* 'sheep';
- ON *syȳr*, OE *sū*, cf. *sow*, OHG *sū*, PIE *sūs* 'pig';
- Go. *swein*, ON *svīn*, OE *swīn*, cf. *swine*, OHG *swīn*, PIE *swīnos* 'pig', cf. *sūs*;
- Go. *aihʷa-*, ON *jór*, OE *eoh*, OHG *ehu-*, PIE *ékwos* 'horse';
- Go. *gaits*, ON *geit*, OE *gāt*, cf. *goat*, OHG *geiz*, PIE *ghaydos* 'goat';
- Go. *hunds*, ON *hundr*, OE *hund*, cf. *hound*, OHG *hunt*, PIE *kwōn* 'dog'.

But the presence of these names may not indicate that herds or flocks were kept, even though the word for property was maintained: Go. *faihu*, ON *fē*, OE *feoh*, cf. *fee*, OHG *fihu*. Evidence to the contrary may be preserved in the different forms for a herd of sheep that are attested in the various dialects, for these suggest independent developments in the several dialects: Go. *awēþi*, OE *ēowde*, OHG *owiti, ewit*. It is also curious that these words and others have a final dental, which may have a collective meaning; among the others is the word for dog, and also those for deer: ON *hiǫrtr*, OE *heorot*, OHG *hiruz* and for horned animal: OE *hrīðer*, OHG *hrind*.

Among the most interesting of the words with such a dental suffix is that for salt: Go. *salt*, ON *salt*, OE *sealt*, the suffix is lacking in other dialects, cf. Gk *háls, halós*, Lat. *sal*, Toch. A *sāle*, OCS *sol*. A cognate is lacking in Indo-Iranian, suggesting that the term was taken into these languages after the speakers of Indo-Iranian had separated from them. Archeologists have determined that the last millennium before our era was a time of economic expansion centering on development of metals such as iron and on the use of salt. The source of the dental suffix has not been identified, though it has been tentatively ascribed to Illyrian on the basis of the tribal name *Soudinoi*, which is connected with **sūs* 'pig'. But little is known of this group other than its location in the *Soúdēta*, that is the *Harz* mountains of southern Germany and the neighboring area.

As metals came to be used, so apparently was the lost wax process of casting, in which a wax model is melted out from a mould to be replaced by bronze. Terms for bees, wax, and honey that have no secure Indo-European etymon were added to the Germanic vocabulary at this time. These include the word for bee: ON *byȳ*, OE *bēo*, OHG *bīo*; the word for swarm of bees: OE *ymbe*, OHG *imbi*; the word for wax: ON *vax*, OE *weax*, OHG *wahs*; the word for honey: ON *hunang*, OE *hunigk* OHG *hona(n)g*. Gothic has a word for honey, *miliþ*, that has been derived from Indo-European, although the original word was apparently **medhu*, as in Skt *mádhu* 'honey' and Gk *méthu* 'wine' (Lehmann

1986:255-256); the Gothic word has parallels in Gk *méli* and Lat. *mel* as well as adjectival reflexes in the other Germanic dialects, so that the modified form has been assumed to have been introduced into the western dialects. Efforts have been made to determine Indo-European sources for these, such as Pokorny's relation of the word for wax to the Indo-European root **weg-* 'weave'; but it is the only derivation from the root with an *-s-* formant, and the meaning is difficult to justify with regard to that of the root. Whether or not such efforts to determine their sources are accepted, the Germanic words were most likely added in the first millennium before our era. They then reflect the gradual shift from an economy based on a hunting-gathering culture to one of increasing settlements with domestic animals and more complex technology.

6.7. The Plant World

In view of the close association of the Germans with nature, a large set of names for plants and their products may be expected. Among the several names for tree is ON *tré*, OE *trēo(w)*, and OS *treo*; the Gothic cognate is attested in *weina-triu* 'vine' and suggests that the word may have implied a smaller tree, or even a branch of wood as by its cognate Gk *dóru*. The Gothic word for tree, *bagms*, has varied cognates in the other dialects, such as ON *baðmr*, OE *bēam*, OHG *boum*; these have been accounted for in various ways, such as modification of the *-g-* to *ð* in Old Norse and its loss in the other dialects. A further word, ON *viðr*, OE *widu, wudu*, OHG *witu* has been explained as indicating trees that provide a boundary, supported by assumption of its derivation from PIE *widh-* 'separate'.

The word for root is well attested, as by Go. *waurts*, ON *ort*, OE *wyrt*, OHG *wurz*. The Gothic word for branch *asts* has cognates only in OS and OHG *ast*. The Old Norse word for straw, *halmr*, has cognates in OE *healm* and in OHG *halm*.

In view of this relatively large set of words referring to trees, and of their attestation in many dialects, we assume that earlier forms of their names existed already in Proto-Germanic and that its speakers were closely involved with trees and their products. The trees in the areas inhabited by Germanic speakers as well as those of Proto-Indo-European have been admirably documented by Friedrich (1970). The names will be briefly noted here.

Among the earliest to become widespread after the recession of the glaciers is the birch: ON *bjǫrk*, OE *beorc*, OHG *birka*. The name is also attested in other dialects, as in Skt *bhūrja-*, and in Lithuanian terms such as *bìrštva* 'birch forest'.

Another early tree is the pine, to which a number of names were given, probably for different varieties. A term that is well attested is ON *fura, fūra*, OE *furhwudu*, OS *furia*, OHG *fur(a)ha*, so that an etymon is assumed for Proto-Germanic. If the first syllable of Go. *faírguni* 'mountain' is related, as by some scholars, the term also has a representative in Gothic, but the source of *faír-* is among the most disputed in the older language (cf. Lehmann 1986:104-105 and Friedrich 1970:133-140). A cognate is assumed in the first syllable of OHG *fereh-eih*, the word for a specific kind of oak tree. Other cognates are assumed in the Latin word for oak: *quercus* and in the first syllable of the Celtic name of the Hercynian forest, which then may have been an oak forest.

A general Germanic word for the oak tree is attested in ON *eik*, OE *āk*, OHG *eih(ha)*; it is assumed to have been applied to a variety of the oak tree in the mountains but then generalized.

One term for the maple is based on the root **kel-*; it has various suffixes, such as *-n-* in OHG *līn-boum*, ON *hlynr* and OE *hlyn*. A different term is found in Danish *ær* corresponding to Lat. *acer*, and to an adjectival formation in OHG *ahorn*.

The word for aspen is attested in OE *æspe*, OHG *aspa*, which is assumed to be metathesized from the Indo-European form that has reflexes in OPruss. *abse* and Lett. *apse*.

One term for elm is OE *wīce*, cf. NLG *wīke*; it is also attested in western Indo-European dialects and has an *-n-* infix in Lith. *vìnkšna*. A second term is attested in Italic and Celtic, e.g. OIr. *lem*, as well as in Germanic, where it has a variety of vowels, as in ON *almr*, OE *ulmtrēow*, and MHG *ilm*.

Several names were given to the willow, one based on its sheen: ON *selja*, OE *sealh*, OHG *salaha* and its adjectival cognate *salo* 'gray'. The OHG *falawa* is related to OHG *falo* 'fallow'. ON *vīðir*, OE *wīþig*, OHG *wīda* on the other hand are based on the root **wey-* 'weave', reflecting one of the uses of its branches.

These are the names for the earliest trees that in Specht's view came to be introduced after the receding of the glaciers, so that there are terms for them in representative Indo-European dialects. To them he adds terms for the apple and nut trees. Those for apple are attested in Crimean Gothic *apel*, ON *epli*, OE *æppel*, OHG *apful*, cf. OIr. *aball*; the more specific terms for the apple tree are attested in ON *apuldr*, OE *apuldr*, OHG *apholtra*. The apple has further interest because Tacitus in his *Germania* stated that the food of the Germans consisted primarily of wild apples — *agrestia poma* — fresh venison, and curdled milk.

The terms for nut and the tree: ON *hnot*, OE *hnute*, OHG *hnuz* have been the subject of dispute: a likely cognate, though with a different suffix, is found in Lat. *nux*. Citing Middle Irish *cnú*, Specht assumed that Latin and Germanic have the same root with different suffixes. In any event, etyma for the terms cannot be found in Proto-Indo-European.

Two other trees, the beech and the yew, as well as their names are clearly later, as indicated by their forms as well as by archeological evidence. The names for the beech belong to the *-o/ā-* stems, Go. *bōka*, ON *bōk*, OE *bōc*, OHG *buocha*; often considered to provide evidence that the home of the Indo-Europeans was in North Europe, because of its distribution west of a line extending from the Baltic Sea to the Black Sea, it no longer is credited for such an argument because cognates refer to different trees, e.g. Gk *phēgós* 'oak'. The names for the yew are reflexes of PGmc *īwa-*: ON *ýr*, OE *īw*, OHG *ēow*. Cognates in other dialects refer to different trees, e.g. Russian *iva* 'willow', so that the name cannot go back to Proto-Indo-European for the yew; it is assumed that the basis may have been a color term because it is the term for alders in Lithuanian.

While cognates of terms for trees can at least be noted in adjacent dialects, those for the cultivated plants have characteristic forms in Germanic. Oats is generally assumed to be

the earliest cultivated grain. The term in Old High German and Old Saxon, *gersta*, differs in vocalism from Lat. *hordeum* and even more so from Gk *krī́thē*; it also refers to barley. We may conclude that there was no continuity among the Germanic speakers from the period of Proto-Indo-European in sowing and reaping the grain. The current German word, *Hafer*, is a recent borrowing from Low German; it contrasts with OHG *habaro*. The Old English word *barley*, OFris. *ber*, is cognate with ON *barr* 'grain' and also with the Go. adjective *bareinans* ('prepared of barley'; acc.pl.); the Latin cognate *far* refers to spelt, Russian *bor* to millet. The word for wheat is attested in all the Germanic dialects: Go. *hʷaiteis*, ON *hveiti*, OE *hwǣte*, OHG *(h)weizi*; it was apparently coined in Proto-Germanic to distinguish the whitish grain from the others. In noting the variations in the references of the names of grains, we may assume that they existed in late Proto-Germanic, and that the speakers were acquainted with the plants at the time, but as Caesar and Tacitus imply they did not cultivate them.

Words for flower (Go. *blōma*, ON *blōmi*, OHG *bluoma*, but not attested in Old English), seed (OHG *sāmo*), and bud (OHG *kīmo*) were apparently coined in late Proto-Germanic or even in the early dialects from verbs, cf. OE *blōwan*, OE *sāen*, Gothic *keinan*. Another word for seed, ON *sāð*, OE *sǣd*, OHG *sāt*, is found also in Go. *manna-seþs* 'mankind'. Earlier forms of *bud*, and cognates, are attested only in the medieval period. Like the words for grains, they seem to have been coined either in late Proto-Germanic or the dialects.

Similarly, words for small plants are unclear in etymology, such as Gothic *gras*, Old Norse *gras*, Old English *græs*, Old High German *gras*. The same is true of the words for moss, Old Norse *mōsi*, Old English *mos*; cf. also Old High German *mīos*, Old English *mēos*. Similarly the etymology of the word for reed is unclear: Gothic *ráus*, Old English *reyrr*, also *hrēod*, Old High German *rōr*.

The variations among these words and difficulties with their etymologies support the characterization of Caesar and Tacitus that agriculture was not practiced by the Germanic speakers even after the beginning of our era. Only when a characteristic word like that for wheat, or when specific trees were identified for definite uses, do we have reliable evidence that the term in question may be credited to Proto-Germanic.

6.8. Nature

The terms for the prominent items of nature directly reflect those of Proto-Indo-European, although like the word for sun they may have undergone various changes; these may be examined in etymological dictionaries. The word for the sun is represented by Go. *sauil*, ON *sōl*, OE *sygil*, Runic *sugil*, which have cognates in many dialects, e.g. Lat. *sōl*. An alternate form, Go. *sunno*, ON *sunna*, OE *sunne*, OHG *sunna* is assumed to reflect an earlier *l/n* stem.

The Gothic word for moon, *mēna*, is comparable to Gk *mḗnē*, but that in the other dialects varies in form: ON *māni*, OE *mōna*, OHG *māno*. A derivative in Proto-Indo-European from the root **mē-* 'measure', it was also used in the early languages as the basis of the word for month; but in Germanic an extended form took over this meaning, e.g. Go. *mēnōþs*, ON *mānaðr*, OE *mōnaþ*, OHG *mānōd*. The word for star also continues the Indo-European base, but with an added suffix, as in Go. *stairno*, ON

stjarna, OE *steorra*, OHG *stern, sterr*, cf. Avestan *star-*; the *-rr-* forms are accounted for by assimilation.

The word for light is based on PIE **leuk-*, but differs in suffixation in the Germanic dialects as also elsewhere, as in the forms: Go. *liuhaþ*, ON *ljōs*, OE *leoht*, OHG *lioht*, but also ON *ljōmi*, OE *lēoma*. There is one word for day throughout Germanic: Go. *dags*, ON *dagr*, OE *dæg*, OHG *tag*; it then can be reconstructed for Proto-Germanic as *daga-*, but has no cognates elsewhere. It is probably a development from PIE *dheg^{w}h-* 'burn'.

The word for darkness, Go. *riqiz*, ON *røkkr* has cognates in other Indo-European dialects, e.g. Skt *rájas* 'dust', but not in the West Germanic dialects, which have words of uncertain origin like OE *deorc* and OHG *tunkal*. The word for night is found in all the Germanic dialects: Go. *nahts*, ON *nátt*, OE *niht*, OHG *naht*, as well as widely elsewhere, usually without the *t*-suffix in the nominative, e.g. Skt *nak*, Lat. *nox*.

The word for year is found in all the Germanic dialects: Go. *jēr*, ON *ār*, OE *gēar*, OHG *jār*, as well as in other dialects, but with *ō*-grade, as in Gk *hôros*. But the words for the seasons are less general. That for winter is newly introduced in Germanic from a root indicating the wet season: Go. *wintrus*, ON *vetr*, OE *winter*, OHG *wintar*. The word for summer is attested in ON *sumar*, OE *summer*, and OHG *sumar*; it has a cognate in Armenian *amaṙn*. But words for the other seasons are not general. For example, OE *hærfest* and OHG *herbist* are based on a root indicating 'reap', while NE *fall* refers to another aspect of the season. By contrast the English word *spring* indicates the emerging of plants, while NHG *Frühling* (early season) has much the same connotation.

Two words for 'water' are found in the Indo-European dialects: Hittite *watar*, an *r/n* stem with variant nominative forms, e.g. Go. *watō*, ON *vatn*, OE *wæter*, OHG *wazzar*; and Latin *aqua* with cognates elsewhere. The words for fire are highly interesting, as noted in section 3.A.1, because two are attested in the dialects: one originally indicating active fire, as in Lat. *ignis*, Skt *Agnís* '(god of) fire'; and the other a neuter indicating fire as a state, as in Hittite *pahhur*, Gk *pũr*, and Go. *fon*, ON *funi*, OE *fȳr*, OHG *fiur*. As contrasting terms, they are residues of the time when Indo-European was an Active/Stative language. The word for snow is also general, although strongly modified in Greek, accusative singular *nípha*, Lat. *nix* from the reconstructed PIE *snoig^{w}hos*: Go. *snáiws*, ON *snær*, OE *snāw*, OHG *snēo*.

Still other words for natural objects might be cited, like those for stone and sand, but those noted here provide excellent examples of names that have survived from Proto-Indo-European, though often with modifications in the forms generalized in the various dialects. Nonetheless the variation in inflection among them is obvious. These have led to the view that the Indo-Europeans viewed themselves as the center of all objects in space (Specht, 1947:10, 334 ff.). Such a position is unusual for a linguist, if of interest. We would be more inclined to the view that these words are maintained from the time when there was no inflection so that they consisted of roots or bases. Then suffixes may have been added in accordance with classes, such as *-r* to indicate non-humans. And in time inflections were introduced to mark syntactic relationships, as in Proto-Indo-European.

6.9. Words for Transportation

The words for transportation have been of great interest for their implications on the spread of the Indo-Europeans. They center about the wagon and the horse. Because extended travel was difficult without wagons with wheels, the terms for wheel have been thoroughly examined for possible indications of the time of the spread. One of these is the PIE *kʷekʷlós* as in Gk *kúklos*, Skt *cakrás*, ON *hvēl*, OE *hwēol, hweowol*, based on PIE *kʷel-* 'drive'. Another is Lat. *rota*, Ir. *roth*, ON *rath*, OHG *rad*, based on PIE *ret(h)-* 'roll', from which Skt *rátha-* 'wagon' is also derived. While these are based on roots, as illustrated, they inflect according to the thematic declension, and accordingly it is difficult to state that they are early.

The same is true of the words for wagon, ON *vagn*, OE *wægn*, OHG *wagan*, and Skt *vahana* 'vehicle, which are based on the root PIE *wegh-* 'move' and of the words for yoke, Go. *juk*, ON *ok*, OE *geoc*, OHG *joh*, cf. Skt *yugá-*, Lat. *jugum*, which are based on PIE *yeug-*. Other words for parts of the wagon have been transferred from items or processes, such as the nave of a wheel from navel and the axle, originally the designation of the shoulder. The terminology for the primary means of transportation then reflects a late Indo-European period. In his massive study of the names of wheeled vehicles and of the horse, Ivanov places it at the beginning of the third millennium B.C. (1999:167-236).

The name of the horse he associates with its domestication. It was long hunted for food, but on the basis of archeological finds it is assumed that domestication should not be dated before the early third millennium. The widespread term in the Indo-European dialects, as in Gk *híppos*, Lat. *equus*, is attested in ON *iōr*, OE *eoh*, and in the name of a thistle in Go. *aihʷa-tundi*. Names like *horse* or NHG *Pferd* that were later introduced do not concern us here. The presence of reflexes of the standard Indo-European name, however, indicates that it was taken into Proto-Germanic at an early stage, at a time when its speakers were still located in the assumed center in southern Russia and the Ukraine.

With their implications concerning the settlement of the Germanic peoples in northern Europe, the names for transportation and its means accordingly have special importance in providing clues on Germanic culture and its development.

6.10. Conclusions on the Bearing of the Semantic Structure of PGmc for Evidence on the Culture of the Speakers

From the semantic system that we can reconstruct for Proto-Germanic, we assume that the speakers maintained an advanced form of a culture stressing the hunter-gatherer lifestyle. The terminology for the household suggests simple wooden dwellings. These consisted of a habitation for humans as well as sites for storage; any structure for cattle may have been incorporated in the human household. They may well have been surrounded by some sort of fences or hedges.

The households were apparently inhabited by individual families, with alignment in clans and tribes but without any more general political units. The terms for occupations indicate prevalence for hunting. But the homesteads also kept domesticated animals,

certainly cattle and sheep, and possibly also pigs. Horses were probably also included, though transportation with wagons may have relied heavily on oxen. Among plants and trees, oats may have been cultivated, but the people relied on wild apples for fruit, as Tacitus reports, and other foods such as nuts may also have been gathered.

As the speakers came in contact with other cultures they adopted advanced forms of weapons and, later, modifications in their religion. The adoption of iron as they came in contact with Celtic speakers must have provided greatly improved weapons and tools. The identification of their native gods with those of the Romans, as still apparent in names of the week like Wednesday corresponding to Mercury's day, implies modifications in worship. By the time of the translation of the Bible into Gothic, their culture and the lexicon to represent it no longer reflected the culture and lexicon that we reconstruct for the Proto-Germanic period.

VII. TEXTS

7.1. Gothic

The oldest Germanic text, except for a few runes some of which have been included in the body of this grammar, is Wulfila's translation of the Bible into Gothic. Little is known about him; his tentative dates are 311-383. When he was about twenty-one he went to Constantinople to study, and at the age of thirty was consecrated first bishop of the Goths north of the Danube. During his work in what is now Bulgaria, in the fourth century A.D., he carried out the translation, presumably with the help of others. The chief parts of the text that have survived were written in northern Italy in the early sixth century on purple parchment with silver ink. The manuscript, now in the University of Uppsala library, is referred to as the *Codex Argenteus*.

The selection presented here is *Luke* 2:1-7, chosen because it is a narrative and also because there are analogues in the other dialects. It is taken from the standard edition of *Die gotische Bibel* (Streitberg, 1971). The text is so similar to the King James version that analysis of each word seems unnecessary. Only less identifiable words are glossed, as also in the other texts included. To illustrate the closeness to the original, the first verse of the Greek text is given here; as chief difference, there are no articles in the Gothic text.

Egéneto dè en taîs hēmérais ekeínais eksêlthen dógma parà kaísaros Augoústou apográphesthai pâsan tḕn oikouménēn.

1. Warþ þan in dagans jainans, urrann gagrefts from kaisara Agustau, gameljan allana midjungard. 2. soh þan gilstrameleins frumista warþ at [wisandin kindina Swriais] raginondin Saurim Kwreinaiau. 3. jah iddjedun allai, ei melidai weseina, h^{w}arjizuh in seinai baurg. 4. Urrann þan jah Iosef us Galeilaia, us baurg Nazaraiþ, in Iudaian, in baurg Daweidis sei haitada Beþla<i>haim, duþe ei was us garda fadreinais Daweidis, 5. anameljan miþ Mariin sei in fragiftim was imma qeins, wisandein inkilþon. 6. warþ þan, miþþanei þo wesun jainar, usfullnodedun dagos du bairan izai. 7. Jah gabar sunu

seinana þana frumabaur jah biwand ina jah galagida ina in uzetin, unte ni was im rumis in stada þamma.

Glosses: 1. gagrefts 'decree', gameljan 'write down, enroll', midjungards 'middle-house/family, world'; 2. gilstrameleins 'enrollment', kindina 'governor', raginon 'govern'; 3. iddja, pret. of gangan 'go', hwarjizuh 'everyone', baurg 'city, town'; 4. haitan 'call, be called', duþe 'because', fadrein 'descent, race'; 5. fragifts 'gift, betrothal', qeins 'woman', inkilþo 'pregnant'; 6. miþþanei 'while, as', jainar 'there', usfulljan 'fulfill', bairan 'bear, give birth'; 7. frumabaur 'first born', biwindan 'wrapped', uzeta 'manger', staþs 'place'.

7.2. Old English

The Old English translation was produced several centuries later by unknown scholars. The text here is based on Liuzza (1994, pp. 101-102).

1. Sōþlīce on þām dagum wæs geworden gebod fram þām Cāsere Augusto, þæt eall ymbehwyrft wǣre tōmearcod; 2. þēos tōmeardones wæs ǣrest geworden from þām dēman Syrige Cirino, 3. and ealle hig ēodon and syndrie ferdon en hyre ceastre. 4. Đā ferde Iosep fram Galilea of þǣre ceastre Nazareth on Iudēisce ceastre Davides, sēo is genemned Bethleem forþam þe he wæs of Dauides hūse and hirede. 5. þæt he ferde mid Marian þē him bewedded wæs and wæs geēacnod. 6. Sōðlīce wæs geworden þā hī þar wǣron hire dagas wǣron gefyllede þæt hēo cende. 7. and hēo cende hyre frumcennedan sunu and hine mid cildeclāþun bewand and hine on binne alede forþam þe hig nǣfdon rūm on cumena hūse.

Glosses: 1. sōþlīce 'truly, verily' (the adverb commonly used to correspond to introductory phrases in the Greek, such as *egéneto dè* 'it happened'; here the King James version used 'and it came to pass'; in verse 6 it used 'and so it was'; in verse 16 the pattern of 1 was used again), gebod 'command', ymbehwyrft 'about + circuit, world', tōmearcian 'mark out, count'. 2. dēma 'judge'; 3. ēodon, cf. Gothic iddja; past of gān 'go', syndrie 'individuals'; feran 'go, travel', ceaster 'fort, town, city'. 4. nemnan 'name', forþam þe 'because', hired 'family, household'. 5. ēacnian 'increase, be pregnant'. 6. ge-fyllan 'fill, fulfil', cennan 'bring forth, give birth'. 7. frumcenned 'first born', cildclāþ 'child-clothing', bewindan 'surround, wrap', binn 'manger', nǣfdon (negative ne- + habban) 'not have', rūm 'space, room', cumen 'traveler'.

7.3. Old Saxon

Rather than a translation of *Luke* 2:1-7, the corresponding part of a long poem, the *Heliand*, is given here. The author is unknown. The poem is assumed to have been written between 814 and 840 by a poet who knew the Old English Bible translations. As is readily evident, the alliterative verse is loose, though observed in its essentials. In view of the expansive presentation, selected lines of the poem rather than a continuous passage are included here.

339-42 Thô warð fon Rûmuburg rîkes mannes
obar alla thesa irminthiod Octauiânas
ban endi bodskepi obar thea is brêdon giuuald

cumin fon themu kêsure cuningo gihuilicun,
hêmsitteandiun, sô uuîdo sô is heritogon
obar al that landskepi liudio giuueldun,
345 Hiet man that alla thes elilendiun man iro ôðil sôhton,
356b-61a Thô giuuêt im ôc mid is hîuuisca
Ioseph the gôdo, sô it god mahtig,
uualdand uuelda; sôhta im thiu uuânamon hêm,
thea burg an Bethleem, thar iro beiðero uuas,
thes heliðes handmahal endi ôc thea hêlagun thiornun,
Marian thera gôðun. ...
369-70 that iru an them sîða sunu ōðan warð,
giboran an Bethleem barno strangost,
378b-82a Thô ina thiu môðar nam,
biuuand ina mid uuâdiu uuîbo scôniost,
fagaron fratahun, endi ina mid iro folmon tuêem
legda lioflîco luttilna man,
that kind an êna cribbiun.

Glosses: 339 rîki 'mighty'; 340 irmin-thiod 'human-folk, people'; 341 ban 'command', bodskepi 'message', giuuald '(power), empire'; 342 gihuilik '(to) each'; 343 hêm-sittiand 'prince', heritogo 'ruler'; 344 landskepi 'empire', giuualdan 'rule'; 345 hêtan 'command', elilendi 'foreign, away from home', ôðil 'homeland', sôkian 'seek'; 356 gi-wîtan 'set out', hîwiski 'family'; 358 willian 'wish'; sôkian 'seek', wânam 'beautiful', hêm 'homeland'; 359 bêðie 'both'; 360 helið 'man, hero', hand-mahal 'homeland', thiorna 'virgin, maiden'; 369 sîð 'journey', ôðan 'granted, bestowed'; 370 strang 'powerful, mighty'; 378 niman 'take, accept'; 379 bi-windan 'wrap', wâd 'clothes', wîf 'woman, wife', skôni 'beautiful'; 380 fagar 'beautiful, charming', frataha 'adornment, attire', folmos 'arms', twêne 'two'; 381 leggian 'lay', lioflîco 'lovely'; 382 ên 'a', kribbia 'crib'.

7.4. Old High German

The Old High German passage is from a gospel harmony ascribed to Tatian, a Syrian scholar of the second century A.D. The Latin was found and revised by Bishop Victor of Capua in the sixth century. The German translator is unknown. There are several manuscripts, the most reliable of which is dated to the second half of the ninth century and is in the library at St. Gall. The second chapter of *Luke* is located after the first chapter of *Matthew*, and followed in turn by the second chapter of *Matthew*.

To illustrate the closeness of the Old High German text to the original, the first three verses of the Latin text are given here. The Latin uses the phrase *factum est* for introducing episodes, as the Old English does *sôþlîce* and the Greek *egéneto*, often followed by *dé*. The King James translators reproduced the Greek with 'and it came to pass' or with an expression more like the Latin 'and so it was'.

Factum est autem in diebus illis, exit edictum a Cesare Augusto, ut decriberetur universus orbis. Hæc descriptio prima facta est a praeside Syriæ Cyrino, et ibant omnes ut profiterentur singuli in suam civitatem.

1. Uuard thô gitân in then tagun, framquam gibot fon ðemo aluualten keisure, thaz gibrieuit vvurdi al these umbiuuerft. 2. Thaz giscrib zi êristen uuard gitan in Syriu fon ðemo grauen Cyrine, 3. inti fuorun alle, thaz biiâhin thionost iogiuuelih in sinero burgi. 4. Fuor thô Ioseph fon Galileu fon thero burgi thiu hiez Nazareth in Iudeno lant inti in Dauides burg, thiu uuas ginemnit Bethleem, bithiu uuanta her uuas fon huse inti fon hiuuiske Dauides, 5. thaz her giiahi saman mit Mariun imo gimahaltero gimahhun sô scaffaneru. 6. Thô sie thar uuarun, vvurðun taga gifulte, thaz siu bari, 7. enti gibar ira sun êrist-giboranon inti biuuant inan mit tuochum inti gilegita inan in crippea, bithiu uuanta im ni uuas ander stat in themu gasthuse.

Glosses: 1. tuon 'do' (it was done/carried out), fram-queman 'come from', gibot 'command', aluualtan 'govern all', gebrieven 'record', umbiuuerft 'orb, world'; 2. giscrib 'recording'; 3. bi-jehan 'state, assert', thionost 'service'; 4. faran 'travel, go', hîuuiski 'family'; 5. gi-jehan 'profess', gi-mahalen 'espouse', gimahha 'spouse', scephen 'create, pregnant'; 6. beran 'bear, give birth'; 7. tuoh 'cloth', bithiu uuanta 'because', stat 'place'.

Luther's translation

1. Es begab sich aber zu der Zeit, daß ein Gebot von Kaiser Augustus ausging, daß alle Welt geschätzt würde. 2. Und diese Schatzung war die allererste und geschah zu der Zeit, da Cyrenius Landpfleger in Syrien war. 3. Und jedermann ging, daß er sich schätzen ließe, ein jeglicher in seine Stadt. 4. Da machte sich auch auf Joseph aus Galiläa, aus der Stadt Nazareth, in das jüdische Land, zur Stadt Davids, die da heißt Bethlehem, darum, daß er von dem Hause und Geschlechte Davids war. 5. Auf daß er sich schätzen ließe mit Maria, seinem vertrauten Weibe, die war schwanger. 6. Und als sie daselbst waren, kam die Zeit daß sie gebären sollte. 7. Und sie gebar ihren ersten Sohn und wickelte ihn in Windeln und legte ihn in eine Krippe; denn sie hatten sonst keinen Raum in der Herberge.

7.5. Old Norse / Icelandic

Ari's little work on the settlement of Iceland, *Libellus Islandorum*, is among the earliest prose documents in Old Norse; it was written between 1120 and 1133.

Ingólf hét maðr Norrœnn, er sannliga er sagt at fœri first þaðan til Íslands, þá er Haraldr inn Hárfagri var xvj vetra gamall, en í annat sinn fám vetrum síðar. Hann bygði suðr í Reykjarvík. Þar er Ingólfhǫfði kallaðr, fyr austan Minþakseyri, sem hann kom first á land; en þar Ingólfsfell fyr vestan Ǫlfossá, er hann lagði sína eigu á síðan. Í þann tíð var Ísland viði vaxit í miðli fjalls ok fjǫru.

Þá váru hér menn Kristnir þeir er Norðmenn kalla papa. En þeir fóru síðan á braut, af því at þeir vildu eigi vera hér við heiðna menn, ok létu eptir bœkr Írskar ok bjǫllur ok bagla; af því mátti skilja at þeir váru menn Írskar.

Glosses: heita 'be named', maðr 'man', sannliga 'truly', fara 'go, travel', þaðan 'from there', þá er 'when', Hárfagri 'Fair-haired', vetr 'winter, year', gamall 'old', annar 'another, second', sinn 'time, occasion', fám 'five', byggja 'settle, build', suðr 'south', kalla 'call, name', fyr austan 'east of', sem 'where, as, while', leggja eigu á 'take possession of', síðan 'later', tíð 'time', viðr 'forest, wood', vaxa 'grow', í miðli 'between', fjall 'mountain', fjara

'beach', á braut 'away', af því at 'because', eigi 'not', heiðinn 'heathen', láta eptir 'leave behind', bók 'book', bjalla 'bell', bagall 'crozier', skilja 'determine', Írskr 'Irish'.

Old Icelandic poems provide an indication of Germanic poetry and may have been sung on festive occasions, for which we have an example in *Egils saga*, when Egil recites a poem honoring his captor, who then releases him. Sections in two stanza types are given here, representing two types of poetry.

The first verse form, the *fornyrðislag*, is made up of lines comparable to those in epic poems, like *Beowulf*, but in stanzas consisting of four lines. One of the most prominent poems in this form is the *Vǫluspá* or Song of the Prophetess on cosmogony, represented here with stanzas 1 and 3:

Hljóðs biðk allar helgar kinder,
meiri ok minni mögu Heimdallar;
vildu at, Valföðr, vel fyr teljak
forn spjöll fira, þaus fremst of man.
Ár vas alda þars Ymir byggði,
vasa sandr né sær né svalar unnir;
jörð fansk æva né upphiminn;
gap vas Ginnunga, en gras hvergi

I ask for attention of all hallowed children,
the high and the low Heimdall's children;
you, Valfather, want that I relate
the fates of mankind, that best I recall.
It was an ancient time when Ymir lived,
there was no land nor sea nor cool waves,
no earth to be found, nor heaven above;
it was a formless void, no grass anywhere.

The second form is the *ljóðaháttr*, in which the alternate lines contain only three lifts. It is used especially in didactic verse, such as the *Hávamál*, or sayings of the High One, Odin. Its most frequently cited stanzas may be verses 76 and 77:

Deyr fé, deyja frændr,
deyr sjalfr hit sama;
en orðstirr deyr aldrigi
hveims sér góðan getr.
Deyr fé, deyja frændr,
deyr sjalfr hit sama;
ek veit einn at aldri deyr:
dómr of dauðan hvern.

Kine dies, kinfolk die,
dies just so the soul;
but glory never dies
for him who gets good account.
Kine dies, kinfolk die,
dies just so the soul;
I know something that never dies,
the judgment on all who are dead.

Abbreviations

acc.	accusative
Arm.	Armenian
Av.	Avestan
Crim.Go.	Crimean Gothic
dat.	dative
du.	dual
Du.	Dutch
f. *or* fem.	feminine
Gaul.	Gaulish

gen.	genitive
Gk	Greek
Gmc	Germanic
Go.	Gothic
Hitt.	Hittite
Ind.	Indic
inst.	instrumental
Ir.	Irish
Iran.	Iranian
Lat.	Latin
Lett.	Lettish (Latvian)
Lith.	Lithuanian
m. ***or*** **masc.**	masculine
ME	Middle English
MHG	Middle High German
NE	New English
NHG	New High German
NLG	New Low German
nom.	nominative
nt. ***or*** **neut.**	neuter
OCS	Old Church Slavonic
OE	Old English
OFris.	Old Frisian
OHG	Old High German
OIr.	Old Irish
OLat.	Old Latin
ON	Old Norse
OPruss.	Old Prussian
OS	Old Saxon
OSV	Object Subject Verb
OSwed.	Old Swedish
OV	Object Verb
OVS	Object Verb Subject
PGmc	Proto-Germanic
PIE	Proto-Indo-European
pl. ***or*** **plur.**	plural
pret.	preterite (i.e. past)
ptc.	participle
Run.	Runic
sg. ***or*** **sing.**	singular
Skt	Sanskrit
SOV	Subject Object Verb
SVO	Subject Verb Object
Toch.	Tocharian
Umb.	Umbrian

VO	Verb Object
VOS	Verb Object Subject
Wel.	Welsh
WGmc	West Germanic