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GOTHIC FINAL SYLLABLES: A NEW LOOK AT THE
PHONOLOGICAL AND MORPHOLOGICAL DEVELOPMENTS FROM
GERMANIC

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GOTHIC FINAL SYLLABLES:
A NEW LOOK AT THE PHONOLOGICAL AND MORPHOLOGICAL
DEVELOPMENTS FROM GERMANIC

by
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ASBURY WESLEY JONES. Gothic final syllables: a new look at the phonological and morphological developments from Germanic (Under the direction of SIDNEY R. SMITH and H. CRAIG MELCHERT.)

The dissertation reviews the past one hundred years of work on Gothic final syllables and reassesses the Gothic reflexes of Indo-European *a, *o, *ə, *ɪ, *u, *oi, *ai, *əi, *i, *w, *-m *-t/-*d, and *-s. The paper considers as well the development of Gothic endings in the nouns, pronouns, directional adverbs, and verbs.

Among the more interesting phonological conclusions are the following: 1) Gothic final syllables can be derived without recourse to trimoric vowels so long as one postulates a continuing distinction between *a̯ and *ə in unstressed syllables; 2) short *u is apparently never lost in Gothic by regular phonological rule; 3) Germanic unstressed *-oi and *-ai are probably to be distinguished, the former becoming *-ə, then Gothic -a, the latter becoming *-ai; 4) Gothic syllabic w in such words as gaidw is perhaps to be read as [uw] and may reflect Sievers' Law; 5) there is no evidence to support a merger of final m and n prior to the loss of final nasals in Germanic; 6) final Indo-European *-s appears to have become *-z in pre-Germanic regardless of the presence or absence of preceding stress.

Among the more interesting morphological claims are these: 1) Gothic genitive plural -e̯ is perhaps the regular reflex of Germanic *-əm --genitival -e̯ seems to have been an innovation arising in the ā-stems; 2) Gothic datives bammuh and hwammeh may reflect Germanic *-əi and *-ai respectively and should be compared with the Old High German datives demu and tagu; 3) the Germanic
feminine dative singular was perhaps *-ōi for nouns (an innovation), *-āi for adjectives and pronouns; 4) the Germanic n-stem neuter nominative-accusative plural *-āna is perhaps a conflation of earlier *-ā(n) plus *-nā, endings ultimately cognate with those reflected in Sanskrit; 5) the Germanic neuter interrogative nominative-accusative singular was *hwam, not *hwat—North-West Germanic forms are reformations; 6) Germanic pronominal masculine accusative singular *-nām seems to derive ultimately from the anaphoric pronouns and a congruence of masculine and feminine accusatives therein; 7) the Gothic directional adverbs in -ō are from earlier *-ōt (< *ōd), an ablative, those in -ē from *-ēt (< *-ēd < *-e), originally instrumental; 8) Gothic first singular active optative in -au may be a Gothic innovation modeled on the passive; 9) Gothic passives and imperatives in -au may derive ultimately from Indo-European imperatives in *-tu/*ntu; 10) Gothic first weak imperative second singular in -ei may result from morphological dissimilation to the preterit-present third singular optative-imperative in -ī.

Arguments for particular phonological or morphological revisions to the standard handbooks are preceded by thorough reviews of the published literature, followed by critical appraisals of what is known. These, in turn, are coupled with references to preceding or following sections of the dissertation. Where necessary, developments in North-West Germanic are also discussed.
ACKNOWLEDGMENTS

In 1975, during his seminar on Scandinavian linguistics, Dr. Sidney R. Smith suggested that I review the Germanic laws of final syllables and present a summary of their results in North Germanic to the seminar group. I had long been perplexed by the laws of finals and I welcomed this opportunity to study them in greater detail.

Subsequently, under the influence of articles by Eric P. Hamp and Paul Kiparsky, I expanded the seminar report into a thirty page paper which presented an 'accent hypothesis' of Germanic finals. Though I had not checked all the implications of this hypothesis in all the dialects, I felt that it was a promising approach and that it might make an interesting dissertation topic. Before pursuing it further, however, I decided to solicit the opinions of more experienced scholars. Among those kind enough to encourage me toward further study were Elmer H. Antonsen, Warren Cowgill, Eric P. Hamp, and Robert D. King. All saw, I think, the inadequacies of my original presentation; and, eventually, I saw them too.

Thus chastened, but still perplexed, and now obligated to repay the kindness of my readers, I started over. Cowgill had shown me that the older literature could not be slighted; and I set out, quite simply, to read, index, compare, and understand everything that had ever been written on the Germanic laws of final syllables.
For reasons which appear in the introduction to this dissertation, I began my research with the Gothic literature. When my preliminary Gothic bibliography surpassed five hundred items, I decided to narrow my study to that dialect alone.

Over the next three years, I received invaluable guidance from my advisors, originally Dr. Sidney R. Smith alone, subsequently Dr. Smith in conjunction with Dr. H. Craig Melchert. Dr. H. Phelps Gates, one of my readers, offered comments which led me to clarify several sections. Dr. D. Gary Miller sent me the Germanic section of his dissertation on the Indo-European genitive singular, and Dr. C.-J. N. Bailey made available to me a copy of his *Inflectional Pattern of Indo-European Nouns*. I have also benefitted from many conversations with Dr. Douglas R. Parks, my senior colleague in the North Dakota Indian Languages Program, and with Drs. Robert C. Hollow, David S. Rood, and Allan R. Taylor. To all the above I wish to express my warmest gratitude. That they were kind to me should not be taken to imply, however, that they share in any errors which may appear below. These I have made unassisted.

Mrs. Janell Pepple typed the difficult manuscript with surpassing patience. My wife, Jennifer B. Jones, encouraged me, comforted me, sometimes supported me, and always listened to me. She knows more than she ever wanted to know about Gothic w.

Finally, it should be noted that this study could not exist were it not for the monumental work of my predecessors. Their names are listed in the bibliography.
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CHAPTER ONE

Introduction and theoretical orientation

This study is concerned with one of the traditional problem areas of Germanic historical linguistics—the so-called 'laws of final syllables'. The last presentation of extensive original work in this area was Alois Walde's Die germanischen Auslautgesetze (Halle, 1900), and there can be little doubt that a fresh investigation is overdue. Since Walde, many scholars have offered new descriptions of various morphological and phonological developments in Germanic and the dialects. Though revisions have usually been placed within the larger framework provided by our handbooks of Germanic linguistics, these adjustments have now accumulated to the point that they are sometimes mutually contradictory, one challenging a point which another takes for granted, and vice versa. It seems appropriate, therefore, to reconsider the problems posed by the laws of final syllables, and to seek a coherent set of solutions.

Since our standard handbooks all contain, and base arguments upon, points which later scholars have challenged or revised, it is clear that a new study of the laws of final syllables cannot be founded upon handbook summaries alone. Yet the number of primary studies in this area is so large that no single review can encompass all of them at once. For this reason, the present investigation is limited to developments in a single dialect area. It concentrates on
Gothic because that dialect is relatively homogeneous, relatively ancient, and frequently used as a comparandum in Germanic and Indo-European historical work. Within this narrower field, the study reviews books and articles published between the years 1876 and 1973 and written in either English, German, Dutch, Norwegian, or French. Most of the seemingly excellent Eastern European work has been inaccessible and is therefore not included.

Structurally, the study falls into two large parts, one of which is primarily phonological, the other primarily morphological. Much of the complexity of Gothic inflectional diachrony stems from the proliferation, over the past one hundred years, of conflicting proposals as to developments in these two areas. Though it is true that phonemes may be found only in morphemes and that these twin aspects of a linguistic system are interdependent, it is also true that phonological change and morphological (analogical) change can usually be separated diachronically. Thus, in general, Chapter Two seeks to determine and describe the major diachronic phonological events linking Germanic and Gothic final syllables, while Chapter Three seeks to account for those Gothic final syllables which do not seem to follow the phonological rules.

More specifically, Chapter Two discusses a number of Germanic phonemes (or phoneme sequences) with an eye toward fixing the Germanic developments and establishing, beyond a reasonable doubt, the Gothic reflexes. It is organized according to the sequence: vowels, diphthongs, semivowels, resonants, and obstruents. Within this general plan the discussion is frequently cumulative, with some sections presupposing that earlier sections have been read and under-
stood. At the same time, references to later sections are included when detailed discussion of a particular point would sidetrack the phonological presentation.

Chapter Three takes up Germanic final syllables and Germanic to Gothic morphological developments, including non-phonological reformations. For practical reasons, it is limited to the inflectional morphology of nouns, pronouns (personal, demonstrative, anaphoric, and interrogative), directional adverbs and verbs. Adjectival inflection is a conflation of nominal and pronominal inflection, and is discussed, to some extent, under those headings. Selected topics from the minor pronouns and numerals are discussed in Chapter Two, and there seems little point, at present, in surveying the often controversial remnant. Particles, conjunctions, and prepositions are perhaps best deferred for similar reasons. These last, at any rate, have always been interpreted according to rules established through a consideration of the inflectional system. While it extends the phonological discussion in a few particulars, Chapter Three largely presupposes the material presented in Chapter Two and goes beyond it only when morphological change and phonological change have combined to produce unexpected underlying forms.

Chapter Four appends a brief overview and statement of implications. While many specific conclusions appear in Chapters Two and Three, it is, perhaps, no more possible to state general conclusions in a work of this nature than to do so in a Gothic handbook. Yet it seemed appropriate to offer a few remarks on the differences between this study and older works on the laws of final syllables. Here it
must be emphasized that the present study is neither a comparative Germanic grammar nor a complete treatment of Gothic. Rather, it deals with what seem to be the major or most interesting phonological events linking Germanic and Gothic final syllables, and with the major or representative inflectional (-derivational) categories of Gothic and pre-Gothic. Thus, while a new synthesis of the laws of final syllables has long been overdue, the present work must be viewed strictly as an interim statement subject to revision and correction as the other Germanic dialects are studied anew. One would hope, however, that much contained herein will stand the test of time and that it will prove to be of use to Germanicists and Indo-Europeanists alike.
SECTION 1.1
Theoretical orientation

The present work is descriptive in nature and seeks more to account for historical developments in a certain branch of Germanic than to test the merits of one or another general linguistic theory. Indeed the presentation is theoretically eclectic and looks upon theories of language primarily as so many tools for description. Where Neogrammarian tools fit the task at hand, they are cheerfully used. Where a problem seems intractable to older approaches, I have not hesitated to view language change from the position of Robert D. King, *Historical linguistics and generative grammar* (Englewood Cliffs, 1969). Regardless of the theory applied, I have tried always to select the most plausible account of the data and to do so always in accordance with the same overriding principles. I would hope that these principles are without significant controversy and, indeed, that they reflect the common ground of the various theories used below. I mention them here only that the reader may understand my own orientation to the data.

Until rather recently, the most advanced diachronic phonological descriptions have appeared in the form of ordered sets of sound laws with appended statements of analogical interference. This approach goes far beyond the mere tabulation of parent and daughter forms by considering, through rule ordering, the diachronic relationship of
these two language states and the changes which connect them. The
approach must be used with care, however, for it sometimes leads us
to ignore the fact that parent and daughter stages are synchronically
independent. That is, the surface phonetic forms of attested Gothic
are to be derived from the underlying phonemic forms of attested
Gothic—and not from Germanic forms whether surface or underlying.
Furthermore, one may not derive even the underlying forms of Gothic
directly from the underlying forms of Germanic—and then translate
the Gothic phonemes into Gothic phones—for this approach would imply
that a full-fledged synchronic grammar sprang into being only when
Gothic was about to be recorded. On the contrary, we must recognize
that a viable synchronic phonology consisting of underlying forms,
surface forms, and synchronic phonological rules existed at every
instant of the four to seven hundred years separating Gothic and
proto-Germanic. In all probability, neither the phonemic forms,
the surface forms, nor the synchronic phonological rules of a
daughter language can be traced back in strict isolation one from
another. Rather, the three components of the phonological system
would seem to be interdependent not only synchronically but dia-
chronically as well.

While one should keep clearly in mind the unbroken diachronic
interdependence of linguistic elements, it is also useful for
expository purposes to view the metamorphosis of language as a series
of discrete synchronic stages. In this respect, linguistic pre-
history might be compared to the mathematical description of motion,
which begins with the simplifying assumption that a continuum can be
described by a series of points. Recent work on language change,
however, has only highlighted the deviation of this assumption from linguistic reality. Languages (as opposed, perhaps, to idiolects) do not change in quantum leaps, and generations of speakers are anything but distinct. William Labov, among others, has been quite specific about the diffuse nature of on-going change. See, for example, Labov, "The social motivation of a sound change," *Word* 19 (1963), pp. 273-309; Labov, "On the mechanism of linguistic change," *A reader in historical and comparative linguistics*, ed. Allan R. Keiler (New York, 1972), pp. 267-288; and further, Uriel Weinreich, William Labov, and Marvin I. Herzog, "Empirical foundations for a theory of language change," *Directions for historical linguistics*, ed. by W. P. Lehmann and Yakov Malkiel (Austin, 1968), pp. 95-188.

Nonetheless, I believe that the punctual model of language change may well constitute the best available framework for the description of pre-historic linguistic development. If I may draw yet another analogy: the detailed descriptions of on-going change given us by Labov constitute a sort of *Gray's Anatomy* of some dialects of English. In contrast, the prehistorical linguist's descriptions must be equated with paleontology or comparative anatomy. Where Labov can describe a living organism, the prehistorical linguist must content himself with inferences drawn from skeletal remains—from sound changes which have ossified or gone to completion. The soft tissues of language, the intricate sociological interactions described by Labov, must forever remain beyond his reach—not because he wishes to ignore them, but because they are, with the passage of time, no longer actually recoverable.
For these reasons, then, I adopt a step-by-step description of pre-historical developments. Though the assumptions, distortions, and limitations of this model cannot be ignored, yet the description can yield useful approximations to probable reality.
CHAPTER TWO

Some phonological specifics

In the diachronic phonology of Gothic final syllables, there are a few developments which occur so often, or so crucially, or which require such extensive argument, that they are best assembled in one place. This chapter, therefore, does not purport to be a systematic treatment of every Germanic phoneme reflected or lost in Gothic, nor even of several phonemes in the totality of their possible environments. Rather, it concentrates on a few select topics which can be or must be made clearer prior to the discussion of morphological developments presented in Chapter Three.

In the sections which follow immediately below, I have surveyed the bulk of the literature bearing on each given topic. I have tried as well to outline the major theories and to give, with summaries of supporting evidence, the reasons which underlie my own views. I have not tried to give exhaustive lists of references to this or that scholarly opinion, but have been content, in most cases, to cite only a handful of representative statements. These suffice, I hope, to give the gist of what once was or now is held to be valid.
SECTION 2.1

Concerning Germanic *a

There is no doubt that Indo-European *o and *a merged to *a at some time between the period of reconstructable Indo-European and the attestation of the Germanic dialects. Indeed, a corresponding to Indo-European *o is reflected in every Germanic dialect, including the early Runic inscriptions, as well as in the Finnish borrowings from prehistoric Germanic. There has been, however, some question about the chronology of this merger and also about the fate of Indo-European *o and *a in Germanic final syllables. Properly considered, these questions must be answered, or at least addressed, well before any larger attempt at a diachronic morphological description.

Standard handbooks of the late nineteenth and early twentieth centuries date the merger of *o and *a between the time of Celtic loanwords and the time of Latin loanwords in Germanic. This dating follows from the fact that the early borrowings show Germanic a for Celtic o, while the later words retain Latin o as (dialectal) Germanic o. The difference in treatment appears to suggest that the Celtic loans entered the Germanic lexicon prior to the change of *o to a, the Latin loans after that change. Supporting examples for this position are given in the following works and other:

Adolf Noreen, Abriss der urgermanischen Lautlehre (Strassburg,
The view that the Celtic words must have been borrowed prior to the merger of \*o and \*a in Germanic has not, however, gone un-critized. As early as 1898, for example, Hermann Hirt raised an important objection in his article, "Grammatisches und Etymologisches," PBB 23 (1898), pp. 288-357. On page 317 Hirt writes: "Das beispiel beweist nicht, was es beweisen soll. Denn angenommen, dass o schon zu a geworden war, so besassen die Germanen kein o mehr (vorausgesetzt, dass u noch nicht zu o geworden war); sie substituierten daher ihr a für das kelt. o. Als später ein neues o aus u entstanden war, konnten sie dieses für das o der lateinisichen lehnworte gebrauchen." As Hirt correctly notes, the Celtic words could very well have been borrowed after the merger which they are supposed to predate. In that sound substitution cannot be ruled out, the Celtic words are, in fact, useless for dating the merger of \*a and \*o. The Latin words, on the other hand, indicate only that the merger had already occurred prior to the time of borrowing.

Seeking additional information, some scholars have turned to Germanic loanwords in Finnish in an effort to date the merger more precisely. Thus Helmut Arntz, in "gemeingermanisch" (Germanen und Indogermanen; Volkstum, Sprache, Heimat, Kultur; Festschrift für Hermann Hirt, ed. Helmut Arntz, vol. 2 [Heidelberg, 1936]), p. 432, has claimed that Finnish olut 'beer, ale' reflects Germanic and

1894), pp. 16-17, Anm. 1; Wilhelm Streitberg, Urgermanische Grammatik, 4th ed. (1895; reprint Heidelberg, 1974), p. 45; and R. C. Boer, Oergermaansch Handboek, 2nd ed. (Haarlem, 1924), p. 34.
Indo-European *o_ at a time subsequent to the operation of Grimm's Law (Finnish -t equals Germanic -p). Unfortunately for Arntz, however, Alan S. C. Ross—"Contribution to the study of u-flexion (concluded)" (TPS 1954), pp. 112-113—has shown convincingly that Finnish olut is not a Germanic borrowing and, furthermore, that it reflects Indo-European *a_—not *o_. Indeed, even if Ross is wrong about the transmission, Finnish olut is not good evidence for the retention of Indo-European *o_ since it may well reflect the u-umlaut of an earlier Germanic *a_. One must note as well that all other Finnish borrowings show Germanic *a_ in stressed syllables.

Arntz also cites, as evidence for Indo-European and Germanic *o_, such Greek spellings of Germanic names as ἁρρίγουσ, ὁρνύγιος, ὁπίσουιος (p. 432). Here, however, it is impossible to discount the likely effects of Celtic transmission, a problem discussed quite fully by Hermann Collitz in his article, "Segimer oder: germanische Namen in keltischem Gewande" (JEGP 6 [1906/07], 253-306). As Collitz has shown, Germanic names recorded by classical authors from Celtic intermediaries simply cannot be taken as direct evidence for Germanic vocalism in the prehistoric period.

It appears, then, that none of the external sources—classical transcriptions, Germanic borrowings, Germanic loanwords in Finnish—enables us to set an absolute date for the merger of Indo-European *o_ and *a_ in Germanic. Furthermore, we are unable, from external sources alone, even to establish the relative ordering of this merger and the consonant shifts described by Grimm's Law.

There is, however, internal Germanic evidence to indicate that the merger of Indo-European *o_ and *a_ occurred after the operation
of both Grimm's and Verner's Laws; that is, in specifically Germanic times. This evidence has been assembled most recently, and reviewed most clearly, by Joseph B. Voyles in his article, "Simplicity, ordered rules, and the first sound shift" (Lg. 43 [1967], 636-660). On pages 648-652 Voyles discusses the fate of the Indo-European labiovelars in Germanic and concludes that voiced and voiceless labiovelars are governed by separate rules. Thus Germanic *kʷ (< I-E *£w) and *xʷ (< I-E *kʷ) delabialize before Indo-European *o (but not before *a) and in certain other environments (p. 649); Germanic *gʷ, however, receives a different treatment, appearing not only as *gʷ/*g, but also as *w (p. 651). Since *kʷ and *xʷ may be grouped by voicelessness only after Grimm's Law, and since *gʷ includes both Indo-European *ghw and Indo-European *kʷ after Verner's Law (see pp. 656-658), the merger of Indo-European *o and *a must follow the consonantal changes characteristic of early Germanic. As Voyles points out, the evidence of the labiovelars indicates that the earliest Germanic, at a time subsequent to the accent shift, still retained an essentially Indo-European vowel system which distinguished *a and *o as well as *a̯ and *o̯. The forms cited by Voyles further indicate that this distinction is to be postulated in stressed as well as in unstressed syllables in Germanic.

Voyles' argument from the labiovelar evidence was apparently first proposed by Hermann Moller—"Zur Declination; germanisch AEO in den Endungen des Nomens und die Entstehung des o (a̯2)" (PBB 7 [1880]), pp. 482-483. On page 483 Moller gives partial earlier credit to Bezzenberger (BB 5, pp. 175f). Moller was followed by

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But this theory, which rests almost entirely on such classical renderings of Germanic names as Latin *Langobardi*, was challenged as early as 1903 by Otto Bremer in his article, "Urgerm. *a* in unbetonter Silbe" (IF 14, pp. 363-367). In this article Bremer demonstrates that such *o*'s as are found in the classical record are due either to the intrusion of Greek or Latin inflectional endings or to the influence of Celtic compounds with *-o-* as connecting vowel. Otherwise, and particularly in derivational suffixes containing Indo-European *o*, classical authors record Germanic *a*. More
recently, Bremer's evidence has been accepted and expanded by James W. Marchand in his article, "Names of Germanic origin in Latin and Romance sources in the study of Germanic phonology" (Names 7 [1959], 167-181). Here, on pages 172-173, Marchand demonstrates once and for all that the Latin evidence cannot be used to support a later merger of *o and *a in unstressed syllables. Kurt Eulenberg's hypothesis—"Zum Wandel des idg. o im Germ." (IF 16 [1904], pp. 35-40)—that Indo-European *o remains as a Germanic connecting vowel before labial elements, also falls before Marchand's counter-evidence. There is, then, no evidence whatsoever in the non-Germanic sources which might support a longer retention of Indo-European *o in Germanic unstressed syllables.

Some scholars have maintained, however, that there is internal evidence for the preservation of Indo-European *o before m in Germanic unstressed position. Thus, regarding Old English, A. Campbell writes—Old English Grammar (London: Oxford University Press, 1959): "It has been shown . . . that I-E o > a, a > e in Gmc., in unaccented as in accented syllables. But in North and West Gmc., in medial unaccented syllables when m followed, or when u stood in the following syllable, I-E o > u, Gmc. o (< I-E a and o) > u . . ." (p. 139). The rule seems fairly well supported in Old English. Indeed, roughly the same rule appears in North Germanic, though, as a comparison of examples in the two languages would show, it is not to be directly equated with the Old English statement—see Adolf Noreen, Altnordische Grammatik I, 4th ed. (1923; reprint, University of Alabama Press, 1970), p. 119.

Unfortunately, however, the North-West Germanic forms do not
argue necessarily for the preservation of Indo-European *o in
Germanic unstressed syllables. That is, it is equally possible that
Indo-European *o first became Germanic *a everywhere, and that this
Germanic *a, in unstressed position, and under the conditions cited
by Campbell and Noreen, later developed to *o and thence to u in
North-West Germanic.

It would appear that either theory can account for the North-
West Germanic data. One should note, however, that the two theories
have different implications for the merger of Indo-European *a and
*o in Germanic unstressed syllables. The standard theory, as repre­
sented by Campbell, states that *a and *o merged everywhere except
"when m followed, or when u stood in the following syllable." That
is, Indo-European *o has been preserved in Germanic under certain
conditions. The alternative theory, which was suggested above,
states that *a and *o have merged everywhere without exception. That
is, Indo-European *o has not been preserved in Germanic. Rather, a
new *o later developed from Germanic *a in North-West Germanic,
perhaps by u-umlaut or a kind of labial umlaut of unstressed a by m.

Considering only the merger rule itself, it would seem that
the alternative theory is preferable to the traditional view, since
the alternative theory permits a simpler statement of the merger.
Indeed, it is perhaps not unreasonable to ask proponents of the
traditional theory to justify, in some way, the added complexity
entailed by their hypothesis. On the other hand, considering only
the North-West Germanic data, it would appear that the traditional
theory is preferable to the alternative view, since the latter
entails a more complex development of Indo-European *o in North-
West Germanic. Again, it is not unreasonable to ask that the alternative hypothesis somehow justify this added complexity.

Beside the two statements of the merger rule, there are other differences between the theories which might provide the sort of justification just requested. Thus, according to the alternative theory, inherited Indo-European *a should appear as u before m in North-West Germanic unstressed position, since *a and *o have merged in all positions prior to the development of the new North-West Germanic *o. According to the traditional view, on the other hand, inherited Indo-European *a should not appear as u before m in North-West Germanic unstressed position, since *a and *o have not merged in this position. If there are forms in which Indo-European *a does not appear as u before m in North-West Germanic unstressed position, then these forms would justify the added complexity which the traditional view entails in the merger rule. Unfortunately, however, there seem to be no Germanic forms in which Indo-European *a occurred in the appropriate environment. This Germanic lacuna has, however, an interesting consequence. Specifically, it means that the traditional theory is almost identical to the alternative theory. That is, if unstressed *o has become *a everywhere except before *m, and if no unstressed *a's appear before *m, then surviving *o's are necessarily allophones of *a, and Germanic contained the synchronic rule: unstressed *a becomes *o before *m. The traditional and alternative theories then differ only in the timing of this rule. The traditional view places the rule in Germanic, the alternative view places it in North-West Germanic. Phonemically, even the traditional view claims */o/ > */a/ > *[o] > */o/.
We have seen that added complexity in the merger rule cannot be justified directly by proponents of the traditional theory. If the added complexity entailed by the alternative theory also cannot be justified directly, then a decision between the theories must be made on some other basis. There is, however, some slight evidence that the North-West Germanic developments may be as complex as the alternative view suggests. Thus, in Old High German, the usual form of the strong adjective masculine dative singular ending is -emu. This is probably to be compared directly with the masculine demonstrative pronoun dative singular *demu. Beside the usual adjectival ending are, in early texts, what appear to be relic forms in -amu, which have been compared with the Gothic ending -amma (references in Wilhelm Braune and Walther Mitzka, Althochdeutsche Grammatik, 12th ed., [Tübingen, 1967], p. 219, Anm. 4). Significant in these relics is the a which appears before m. Comparison of -amu with the Old High German o-stem dative plural ending -um suggests that the a-u distinction may hinge on the relative height of the vowel which followed in Germanic. Thus -um is from Germanic *Vmiz (where V represents Indo-European *o), while (as will be argued in Section 2.7), -amu is probably from Germanic *Vmo-. For Old High German, then, it appears that Indo-European *o was preserved (or that Germanic *a became *o) before *m followed by a high vowel, but not before *m followed by a mid (or low) vowel.

In Old English, the strong adjective masculine dative singular ending is -um, identical to the dative plural. (The Old Icelandic forms are comparable.) Campbell (p. 252) derives this ending from Germanic *-ammo-. If he is correct, then the Old English developments
differ from the Old High German. It might be supposed that the Old English singular form is borrowed from the plural on the model of the pronouns, where masculine dative singular and plural forms also agree (as *baem beside *bam). Yet it is difficult to account for the agreement of the two pronominal forms since Icelandic *beim, English *baem are hardly regular in the singular. Indeed, it was only through postulating a phonologically regular merger of the dative singular and plural to -um in the adjective that Richard Loewe was able to explain the incursion of the plural form into the singular of the pronouns--"Der germanische Pluraldative," ZVS 48 (1918), pp. 76-77. Loewe's explanation has, in my opinion, much to recommend it, and I would note as well that it is compatible with Campbell's position. Apparently, then, there is some reason to believe that an adjectival dative singular ending in -um developed regularly in Old Icelandic and Old English—a development which was not shared by Old High German.

There seems to be no evidence that an inherited *-omo or *-omu could become -amu in early Old High German. That is, the a of Old High German -amü appears to date from Germanic, or at least North-West Germanic, times. Thus a comparison of early Old High German -amü and the corresponding Old English - Old Icelandic -um suggests that there is at least one instance in which a Germanic or North-West Germanic *a became u in some North-West Germanic dialects. This suggests, in turn, that the North-West Germanic complexities entailed by the alternative theory are not, in fact, unrealistic. Furthermore, it suggests that one may be able to accept the simpler statement of merger.
In the present study of Gothic diachrony, I will, in fact, follow the alternative (simpler) statement of merger. That is, I will not postulate two completely separate changes of Indo-European *o to Gothic a, but will work as if the North-West Germanic u forms are evidence only for a North-West Germanic innovation—not for the late retention of Indo-European *o in Germanic unstressed position. It is possible that a more detailed investigation of North-West Germanic developments will re-affirm the traditional view. In that case, however, I think it will be relatively easy for future scholars to correct my conclusions about Gothic.

I believe the above discussion has shown that, at a time subsequent to the consonant shift, Germanic probably distinguished both *a and *o in stressed as well as in unstressed syllables. The discussion has further suggested that we may have no reason to postulate stages in the merger of these vowels (e.g. merger in stressed position earlier than in unstressed position). Neither, of course, do we have clear evidence for not postulating stages. In actuality, we seem to know only that early Germanic had both *a and *o corresponding to Indo-European *a and *o, and that these two vowels merged—possibly in all environments and perhaps before the breakup of the Germanic speech community. Since there seems to be no evidence for a distinction between *a and *o after the period when the labiovelar allophones were established, I would suggest that there is no practical descriptive reason for distinguishing the two vowels in Germanic inflectional endings. In the morphological sections of this paper, I will therefore reconstruct only Germanic *a for Indo-European *a and *o (compare Section 2.13).
Turning now from the problems of merger, I would like to set
down the following several points regarding the loss of Germanic *a
in unstressed position. First, it should be noted that there is no
Germanic rule which deletes unstressed *a before a single final
consonant. Rather, the syncope is dialectal. Thus, *a is gone
in fourth century Gothic dags 'day' (< *dagaz) but preserved in
Runic Harabanar (Hrabnar) 'raven' (Järsberg stone) (-aR < *-az).
This inscription is dated from the fifth century by Elmer H.
Antonsen, A concise grammar of the older Runic inscriptions
(Tübingen, 1975), p. 56. It is dated from the seventh century by
Wolfgang Krause, Die Sprache der urnordischen Runeninschriften
(Heidelberg, 1971), p. 151. Compare also Marian Adamus, "On the
genetic situation of Nordic," Kwartalnik Neofilologiczny 9, no. 4
(1962), pp. 387-388. Furthermore, Lex Salica (West Germanic) focla
(< *foglaz) indicates that *a is lost after the loss of final *-z
—a specifically West Germanic rule. One must conclude, therefore,
that Germanic protected *a was lost independently in each of the
three major branches. (On the early loss of final *-z in West
Germanic, see Kluge, Urgermanisch, p. 192 and Alois Walde, Die
germanischen Auslautgesetze [Halle, 1900], pp. 23, 126, 128.)

Secondly, I would note that nasalized *a in absolute finality
must also have been lost independently since it is gone in fourth
century Gothic (accusative singular dag < *dagg), but preserved in
Runic of the late fifth or early sixth century (neuter nominative
singular hlaiwa 'grave' B20 stone). Non-nasalized *a in absolute
finality is reflected in none of the attested dialects, a fact which
may or may not indicate that the loss occurred during the period of
Germanic unity.

Third, and finally, there is no reason to believe that *a* was lost earlier after long syllables than after short. Evidence for this purported distinction is drawn entirely from the loss or preservation of the connecting vowel in Gothic compounds of o- or jo-stem nouns—see Streitberg, *Urgermanische Grammatik*, p. 172. Elmar Seebold, however, in his stimulating article, "Erhaltung und Schwund des Kompositions­vokals im Gotischen," (ZVS 82 [1968], pp. 69-97), has correlated this loss not with syllable length, but with the Indo-European accentuation of the several sorts of nominal compounds. Though it leaves some minor points unresolved, Seebold's explanation nonetheless seems better able to account for attested forms than do the older theories based on length distinctions, different periods of compound formation, and analogical reformation.
SECTION 2.2

Germanic *ā/*ō (and *ã/*ã)

The fate of Indo-European *ā and *ō in Germanic final syllables is one of the most difficult questions of Germanic linguistics. One must deal with two qualities (*ā and *ō), two possible quantities (bimoric and trimoric), several possible environments (_____♯, _____*-z, _____*-m/*-n, _____*-t), and three main theories of development, each with internal variation. Here I will first introduce the theories, next trace their evolution, and finally choose among them.

Much of the work on Indo-European *ā and *ō in Germanic finals has focused on the difference: Gothic -a/-o, Old English -e/-a, Old High German -ã/-ã as reflected in, for example, the ʰ̅stem accusative singular and genitive plural respectively. There is a problem here because Indo-European *ā and *ō appear to have merged unconditionally in proto-Germanic times. If this merger occurred in final syllables, then we would expect the two endings just cited to have identical reflexes. Yet a distinction is attested here and in other pairs of endings in every Germanic dialect save, apparently, North Germanic.

For very nearly a hundred years, there have been three proposed explanations for this troublesome dichotomy. The first correlates the vocalic distinction with a Germanic distinction in (secondary) accent which may or may not go back to Indo-European. This I will
call 'the accent theory.' A second hypothesis explains the different vowels as reflexes of a quantitative distinction in Indo-European long vowels. This I will call 'the quantitative theory.' The third account denies that a merger of *a̞ and *ö occurred in early Germanic final syllables and thus relates the attested vocalic differences to the original qualitative difference obtaining between *a̞ and *ö. This will be called 'the qualitative theory.' The reader should note that the now traditional trimoric vowel hypothesis is properly a quantitative theory, even though its adherents sometimes use terminology appropriate to an accent hypothesis (e.g. 'acute', 'circumflex'). What is here termed the accent theory deals with the distribution of accent over the two morae of an ordinary long vowel.

2.2.1. Among the several attempts to illuminate the fate of long final vowels by means of Germanic (secondary) accent, the earliest known to me is Hermann Paul's article, "Zur Geschichte des germanischen Vocalismus." Here, examining the o/a (a/e) split in West Germanic cognates of Gothic -o, Paul considers and rejects the possibility that the difference may go back to an Indo-European qualitative distinction. He writes (pp. 184-185): "Beide laute sind aber wahrscheinlich im urgerm. eben so vollständig zusammengefallen, wie die entsprechenden kürzen ... Die schwierigkeiten, welche sich einer zurückführung der westgermanischen verhältnisse auf diesen alten unterschied in den weg stellen, habe ich [PBB 4 (1877)] s. 356 berührt. Ich halte es jetzt für viel wahrscheinlicher, dass die spaltung auf verschiedener tonintensität beruht, so dass o (ags. a) die stärkere, a (ags. e) die schwächere stufe repräsentiert." Out of context, this quote gives the false impression that Paul was driven to the accent hypothesis by the unworkability of the qualitative theory. In fact, however, though Paul probably did find the qualitative theory unacceptable, this was not his major argument. For fifty pages preceding the remarks cited here, Paul had examined the 'logical principle' of Germanic secondary stress; his application of the principle to the long vowel problem was a natural consequence of that investigation.

It should not go unremarked, however, that the passage of time has removed nearly all of the difficulties mentioned by Paul in his 1877 article as inherent problems of the qualitative hypothesis. Perhaps the only one remaining is Paul's observation that adverbs in
Old English -e, Old High German -o do not seem to reflect a single early quality since Old English -a (not -e) is the usual correspondent to Old High German -o. However, the same forms might be cited against the quantitative theory and, in fact, against the accent theory as well. Seemingly, the Old English- Old Frisian adverbs in -e represent some sort of innovation or some alternative Germanic form not continued in Old High German -o. If so, then none of Paul's objections to the qualitative theory still holds good.

Paul's 'logical principle' was damned as arbitrary by both G. Burghauser and M. H. Jellinek. In his Germanische Nominalflexion (Vienna, 1888), p. 4, Burghauser wrote:

Auf die thatsache, dass urverwandtem -om, -os einmal ahd.
as. -o = ags. -a, ein andermal ahd. as. -a = ags. -e entsprechen, hat zuerst Paul nachdrücklich hingewiesen. Seinen ersten erklärunvsversuch (beitr. IV, 336 ff.) aber, dieser unterschied reflectiere einen alten unterschied zwischen offenem und geschlossenem -o, hat er später (beiter. VI, 184 ff.) zurückgezogen, und zwar zu gunsten der annahme, dass sich das einheitliche germ. -o- (= idg. -o- und -a-) erst in jüngerem sprachleben westgermanisch unter einfluss wechselnder stärke des nebentons in jene zwei entsprechungen gespalten habe: ahd. as. -o = ags. -a entspreche der stärkern, ahd. as. -a = ags. -e der schwächern tonstufe, und es habe formale ausgleichung und unterscheidung in grammatischem sinne stattgefunden. Indessen scheint mir gerade der von Paul selbst hervorgehobene--allerdings nicht ausnahmslose--parallelismus im althochdeutsch--
Paul's explanation failed to gain acceptance for two reasons. First, it was based largely on deduction from abstract principles which often had no clear and direct connection to observable reality. Secondly, Paul's hypothesis led him to no system of Germanic accent. Unfortunately, these twin problems have sometimes plagued Paul's theoretical descendants.

Chronologically the next version of the accent hypothesis in its pure form is Axel Kock's article, "Zur urgermanischen Betonungslehre," PBB 14 (1889), 75-80. Kock begins by noting that modern Norwegian and Swedish show two types of word accent (accent one and accent two) which appear to derive from proto-North Germanic (p. 75). Working back in time, Kock postulates: "Bei der germanischen zurückziehung des hauptones auf die wurzelsilbe behielten
Kock did not apply his hypothesis to the problem of Germanic final syllables. Though the potential correlation between preserved secondary accent and preserved length should have been obvious to Kock and his contemporaries, it remained for Eric P. Hamp to take this last step—apparently quite independently—in his article, "Final syllables in Germanic and the Scandinavian accent system," (SL 13 [1959], 29-48). Like Kock, Hamp notes that modern Scandinavian languages have two types of word accent which appear to reflect the presence or absence of secondary word stress in early Scandinavian (Hamp, pp. 39-40, with additional references). He also suggests that the Scandinavian secondary may continue the Indo-European non-initial primary (pp. 33, 34). Going beyond Kock, Hamp seeks to determine whether or not a presumed Germanic secondary can be distributed over the two morae of a long vowel in such a way as to account of the vowel distinctions in Germanic final syllables (pp. 32-33). Examining the evidence, Hamp concludes, and I tend to agree, that such a distribution is possible. The
question, however, is whether such a distribution is plausible.

In his brief article, Hamp could not discuss the Indo-European accent system, though a reconstruction of this system would seem to be a prerequisite to consideration of Hamp's Germanic proposal. Commonly available reconstructions suggest that Indo-European o-stem and a-stem nouns did not show mobile accent—a suggestion which argues against the sort of Germanic system described by Hamp. It is possible that the Germanic secondary system is to be compared, somehow, with the Balto-Slavic accent system, though I am aware of no Balto-Slavic/Germanic comparative studies which establish this point and support Hamp's proposal. In short, the external evidence has not been forthcoming.

Internal evidence is likewise less than satisfactory. Hamp is concerned with the vowel distinctions in Germanic final syllables, and his approach is essentially one of converting traditional bimoric/trimoric distinctions into accentual distinctions (pp. 32, 35). As he demonstrates, accent can account for the vowel differences. Unfortunately, however, the accentual system which results has no internal regularity. It is not obviously correlated with the Indo-European distinction between strong and weak cases, nor is any other internal pattern readily discernable. My own attempt to extend the theory beyond those forms discussed by Hamp so rapidly came to require arbitrary decisions that I was forced to give it up. As a result, though I would like to accept Hamp's proposal, I am unable to defend it myself and will have to leave it out of account in what follows here.

In his article, "The inflectional accent in Indo-European,"
(Lg. 49 [1973], 794-849) Paul Kiparsky rediscovered Hamp's hypothesis with inversion of the accent distribution. Though Kiparsky is reluctant to make a formal proposal (p. 845), he does believe a certain amount of evidence can be mustered in support of his theory. Thus he writes (p. 845):

The vowels subject to shortening are those whose cognates in Greek and Lithuanian are acute. Assuming that the shortening involved dropping a final unaccented mora, we can conclude that the Germanic acute and circumflex were falling (\(\tilde{V}\tilde{V}\)) and rising (\(V\tilde{V}\)) respectively, i.e. had the Lithuanian and not the Greek values. These values arise, as we have seen, from the marginal alternation produced by rule 48. But rule 48 necessarily entails that original oxytones (theme-accented words) should become movable, and furthermore that this mobility should be from the initial to the final mora of the word.

Is there any evidence in Germanic to substantiate this prediction? Although Germanic has fixed accent, Verner's Law proves the existence of the IE free accent at a prehistoric stage of Germanic. The different Germanic languages provide (cf. Barber 1932) a substantial number of doublets of the type ON hestr \(\sim\) OHG hengist 'horse' with voiced and unvoiced continuants in what is otherwise the same word (Gmc. \(*xanxista-\) \(*xanista-\)). These appear to reflect earlier paradigmatic alternations \(x \sim \gamma\), \(\varphi \sim \beta\), etc. which have been eliminated in different directions in different languages. By Verner's Law, they indicate the earlier existence of paradigmatic accent
mobility in \(\text{o}\)- and \(\text{æ}\)-stems. Furthermore, as Stang 1969 has pointed out, the consonant alternations show that this mobility must have been of the MARGINAL type, e.g. \(*\text{xánxista} \sim *\text{xanyistá}*- \,*\text{áxila} \sim *\text{ayilá}*- 'awn' etc.

The references cited by Kiparsky are: Charles Clyde Barber, *Die vorgeschichtliche Betonung der germanischen Substantiva und Adjektiva*, (Heidelberg, 1932), and Chr. S. Stang, "La loi de Verner et la question des caractères de l'accentuation mobile en germanique," NTS 23 (1969), 7-12.

In Section 2.11 below, it will be pointed out that there is still debate about the position of the Indo-European accent relative to the spirant affected by Verner's Law. For this reason one may not use Verner's Law uncritically to conclude that a supposed paradigmatic mobility in \(\text{o}\)- and \(\text{æ}\)-stem nouns must have been marginal. In addition, it is certainly true that *hengist* can derive as well from \(*\text{xanyísta}*- as from \(*\text{xanyistá}*-*. Furthermore, Barber's doublets do not necessarily reflect paradigmatic alternations. Professor Warren Cowgill has pointed out to me (private communication) that many of Barber's forms are derivatives. They may, therefore, show only the interference of base-form accent and derivational accent. Compare on this same point Hermann Hirt, "Akzentstudien, (3. zum grammatischen wechsel der o-Stämme)," IF 8 (1897), pp. 117-135; Hirt, *Handbuch des Urgermanischen, Teil I*, pp. 151-152; Teil II, p. 38.

In sum, the admittedly miniscule Germanic evidence assembled by Kiparsky is no real evidence at all. One may not reject the accent theory out of hand, but neither may one deny that the accent
hypothesis has yet to receive convincing support as an explanation of Germanic developments.

2.2.2. According to Wilhelm Streitberg—Urgermanische Grammatik, 4th ed. (1895; reprint, Heidelberg, 1974), p. 178—the quantitative hypothesis received its initial impetus from W. Scherer, who postulated a distinction between bimoric and trimoric vowels in his book, Zur Geschichte der deutschen Sprache (1868, pp. 120 f.). I have not had access to Scherer's book and can date my own survey of the theory only from G. H. Mahlow's Die langen Vocale AEO in den europaeischen Sprache (Berlin, 1879). In a discussion of the dative singular, Mahlow offers the following remarks: "Das Griechische weist nicht mehr Spuren verschiedener Quantität bei langen Vocalen auf, weil dieselben in Verbindung mit i oder u sonst nicht vorkommen; im Germanischen aber tritt ihre Verschiedenheit ganz deutlich hervor . . ." (p. 53). "Den Unterschied der beiden Längen erkennt man ferner . . . an ihrem Verhalten beim Eintreten des Auslautgesetzes; eine mehrfache Länge, auf die noch ein Consonant folgt, bleibt erhalten, während eine einfache auch in diesem Falle gekürzt wird." (p. 54). Among Mahlow's examples (p. 55) is the following, now classic, case: "Gen. Pl. Fem. ahd. gebono, -ō = -ām aus -ā + ōm, aber Acc. Sg. gt. giba ahd geba aus *giba-m."

Mahlow's description of the Germanic laws of final syllables conflates the quantitative theory and an early version of the qualitative theory. The results of this conflation are tabulated by M. H. Jellinek—Beiträge zur Erklärung der germanischen Flexion (Berlin, 1891), pp. 2-3—as preface to an attack on Mahlow's theory.
in both its aspects (pp. 2-9). Though Jellinek catches Mahlow in a few embarrassing contradictions, the major thrust of his attack on the quantitative theory is that Mahlow has inadequately justified the original morphemes which contract to produce overlong vowels. He begins his challenge as follows (pp. 4-5):

Mahlow müsste streng genommen in jedem Fall nachweisen können, warum einfache oder überzeitige Länge vorliegt. Ein solcher Nachweis kann nur so geführt werden, dass jede Endung in ihre ursprünglichen Elemente zerlegt und dann gezeigt wird, dass einmal der Stammvocal mit einem langen, das andere Mal mit einem kurzen Suffixvocal contrahirt wurde, oder dass der Stammvocal lang war und das einmal ein vocalisch anlautendes, das andere Mal ein consonantisches Suffix antrat. Denn wenn dieser Nachweis nicht geführt wird, so läuft Mahlows Theorie auf nichts anderes hinaus als auf die Behauptung, die verschiedene Entsprechung, die dieselbe idg. Lautverbindung im germ. findet, beweise, dass schon in der urzeit qualitative Verschiedenheit vorlag, mit anderen Worten derselbe idg. Laut würde unter unbekannten Bedingungen bald so bald so behandelt.

Jellinek then embarks on a case-by-case examination too lengthy to review here as a piece. The conclusion is, however, that Mahlow has significantly overextended the case for superlong vowels.

Though it might seem more appropriately a contribution to the accent hypothesis, the next major statement of the quantitative theory was F. Hanssen's article, "Der griechische Circumflex stammt aus der Urspur," ZVS 27 (1885), pp. 612-617. In this work, Hanssen
claims that the Indo-European accent system is reflected in Greek, Lithuanian, and Sanskrit. He notes, however, that each language has modified the system in its own way so that reconstruction of the original pattern is a difficult task. Seeking to facilitate this task by coordinating another language, Hanssen writes the following rules for Lithuanian and Gothic (p. 613):

1. Vokalische längen in den endsilben mehrsilbiger worte bleiben lang, wenn sie den circumflex (geschliffene betonung) fordern.
2. Vokalische längen in den endsilben mehrsilbiger worte werden gekürzt, wenn sie den acut (gestossene betonung) fordern.
3. Vokalische langen in einsilbigen worten bleiben stets lang.

These correlate with Greek as follows (pp. 613-614):

1. einem circumflectirten langen vokal oder diphthong im griechischen
   ein geschliffener langer vokal oder diphthong im litauischen
   und ein langer vokal oder diphthong im gotischen,
2. einem oxytonirten langen vokal oder diphthong im griechischen
   ein gekürzter vokal im litauischen
   und ein gekürzter vokal im gotischen entspricht.

It is curious that this proposal was not picked up four years later by Axel Kock or, conversely, that Kock's accent hypothesis was not immediately linked to Hanssen's theory by some third scholar. Certainly the two ideas would dovetail nicely, if ultimately to no
avail. Nonetheless, it remains a fact that Hanssen's acute/circumflex theory was coupled not with what I have here called 'the accent theory,' but rather with the quantitative theory employed by Mahlow and ultimately derived from Scherer. In part, this turn of events may be explained by the fact that Hanssen merely states a correlation: (Greek) circumflex equals (Gothic) long. There is no claim that circumflex accent continued into Germanic, nor any doubt that the Germanic expression of the long vowel dichotomy is based on quantity. The nature of the relationship is clearly stated by Hermann Hirt as late as 1931:

"Die Lehre ist sehr einfach. Es gab im Idg. zweimorige und dreimorige Längen. Letztere sind meist durch Kontraktion entstanden. Der Unterschied zeigt sich im Griech. als Akut und Zirkumflex, im Litauischen als gestossener und schleifender Ton, im Indischen als metrisch ein- und zweisilbig gebrauchter Vokal. . . . Im Germanischen sind nun beide Längen um je eine More gekürzt . . ."

(Handbuch des Urgermanischen, Teil I: Laut- und Akzentlehre, p. 133).

It was Hirt who expanded the theory and gave it currency. Where Hanssen had used only Gothic in his brief comparison, Hirt included all of the Germanic languages in his article, "Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen. Zweiter Teil. Die schleifende Betonung im Germanischen und die Auslautgesetze," (IF 1 [1892], pp. 195-219).

Hirt's statement of the theory found general acceptance within a decade of its publication. Wilhelm Streitberg, for example, concluded after a careful consideration of alternative theories:
"Im besten Einklang stehn diese Thatsachen, nämlich der Erhaltung ungedeckter, die Reduktion gedeckter Länge mit der Akzenttheorie: im Ablativ Sing. der e/o-Stämme hat die Endung schleifende Akzentqualität, im Akkusativ Sing. der i-Stämme hat sie dagegen gestossenen Ton."—Urgermanische Grammatik (1895; reprint, Heidelberg, 1974), p. 183. W. van Helten tried several alternatives, but conceded to the acute/circumflex theory in 1903—"Grammatisches [LII]," PBB 28, pp. 497-521. M. H. Jellinek, who had proposed a qualitative theory in 1891 (Beiträge zur Erklärung der germanischen Flexion), coupled it with the quantitative hypothesis in 1895—"Zur Lehre von den langen Endsilben," ZfdA 39, pp. 125-151. Some of the qualitative arguments of Jellinek's 1895 account were effectively challenged by Hirt in 1896 ("Zu den germanischen Auslautgesetzen," IF I, pp. 47-79) with the result that, by 1926, Jellinek had accepted the standard quantitative account—Geschichte der gotischen Sprache (Berlin: de Gruyter). He was followed by Ernst Kieckers, Hanbuch der vergleichende gotischen Grammatik (1927; reprint, Munich, 1960); E. Prokosch, A comparative Germanic grammar (Philadelphia, 1939); Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, I Einleitung und Lautlehre, 7th ed. (Berlin, 1969); and many others. In fact, the acute/circumflex, that is, the quantitative theory of Germanic finals is now the standard handbook account.

The hypothesis, in the form given it by Hanssen and Hirt, has been challenged on several grounds, though not always to good effect. Kiparsky, for example, rejects the thesis "out of hand" for the reason that "three degrees of length are not known to be
distinctive in any actual language" ("Inflectional accent," p. 845). In a footnote, Kiparsky writes: "The well-known case of Estonian is, I think, not a counter-example to this claim. More than two degrees of length occur on the surface, but they are predictable from an underlying system with two degrees of length (as in Finnish)." (p. 845). What Kiparsky grants for Estonian is what many have claimed for Germanic: trimoric vowels result from contraction; that is, from an underlying (or at least a historical) system with two degrees of length (compare the quotation from Hirt, above). It appears, therefore, that one may not reject the theory out of hand.

Inadmissible on similar grounds is the objection raised by James W. Marchand, The sounds and phonemes of Wulfila's Gothic (The Hague, 1973), p. 97; and by Eric P. Hamp, "Final syllables in Germanic and the Scandinavian accent system," SL 13 (1959), p. 30. Marchand and Hamp argue that three degrees of length seem to exist only in Germanic final syllables, and that the trimoric hypothesis consequently leads to a lopsided phonemic system. What this problem actually reveals is the inadequacy of a rigid autonomous phonemic analysis. Trimoric vowels exist in final syllables (if they exist at all) because they represent vowel contractions—either across morpheme boundaries, or upon the loss of an intervening semivowel. Conditions for these contractions existed predominantly in final, that is, in post-stem syllables. I am informed by Douglas R. Parks that closely parallel phenomena appear in Wichita and Shawnee, two American Indian languages, and I would refer as well to the discussion in David S. Rood's article,

Despite the weakness of the counter-arguments discussed above, the classical theory does have severe problems, some of which were pointed out by Jerzy Kurylowicz in a series of articles stretching from the 1930's to the 1950's. The essence of the case has been clearly and succinctly summarized (with references) by James W. Marchand in his study, The sounds and phonemes of Wulfila's Gothic. On pages 99-100, Marchand writes:

. . . the theory of "Dreimorigkeit" in IE is based, excluding Germanic, on phenomena found in Lithuanian, Greek, and Vedic Sanskrit. It is assumed that these phenomena derive from some one Indo-European phenomenon--super-length, intonation, juncture, stress.

. . . The phenomenon in Vedic is the fact that some final vowels, for metrical purposes, must be considered as consisting of two syllables. The conditions under which the Vedic hymns have been handed down to us do not, however, permit us to discern in all cases the original state of their meter. . . . When one adds to this the fact that some final syllables must be read as disyllabic which do not correspond to IE "circumflex" vowels, and that others must be read as monosyllabic which do correspond to IE "circumflex" vowels, it is seen that this criterion is a useless one. . . . Most of the recent handbooks . . . leave Vedic out of consideration and base the theory on Greek and Lithuanian alone.
... The scholar who has been most persistent and effective in his opposition to the theory of "Dreimorigkeit" in IE is Jerzy Kurylowicz. In numerous articles, most of them published in Polish journals, he has sought to demonstrate that the "Schleifton" of Lithuanian and the circumflex of Greek are two different things, and that they do not go back to IE.

... [Kurylowicz] arrives at a description of the IE accent which is in accord with the description usually found in the handbooks. He points out that the circumflex arose in Greek as a result of a series of analogic changes which led to the fixation of the accent on the last two "morae" of the word, plus the preceding syllable. Thus the genesis of the intonations in Greek is marked by an advance of the accent. In Lithuanian, however, it was a recession of the accent which caused the genesis of the intonations. ... Before this recession of accent, there was no opposition "Stosston" vs. "Schleifton".


In his article, "Bimoric and trimoric vowels and diphthongs: laws of Germanic finals again," (JEGP 62 [1963], 155-170), George S. Lane writes (pp. 158-159):

It has been the great service of Professor Kurylowicz to demonstrate persuasively, by means of internal reconstruction, that the Lithuanian and Greek accentual systems, as systems,
are in their development entirely independent one of the other. If Kurylowicz is right in denying the generic relationship between the Greek and Lithuanian acute and circumflex ("gestossen" and "geschleift" respectively), then the entire basis for the current rules regarding the development of long vowels in final syllables in Germanic is removed. I am persuaded by his arguments, though there are certain details of his exposition about which I am doubtful or, perhaps rather, do not understand. One must, then, go back to the point before the "discoveries" of Hanssen, Hirt and the rest and start where Leskien left off.

Lane's own approach to the laws of finals in Germanic is to adopt a strictly quantitative theory. As regards the problem of the genitive plural, he sets up, for vowel stems, an original ending of two syllables (−o+om, or −a+om) which later contract to produce an overlong vowel (pp. 160, 169-170).

A similar position vis-à-vis overlong vowels is taken by Warren Cowgill—"Gothic iddja and Old English eode," Lg. 36 (1960), p. 495. According to both Lane and Cowgill, overlong vowels result from vowel contractions with preservation of relative quantity. Lane is of the opinion that "the evidence for these original differences in length must be Vedic meter . . ." (p. 169). I tend to agree with Marchand, however, that Vedic is no clear guide in this matter. I would note as well that Kurylowicz has demonstrated how the genitive plural (Lane's clearest example) could have developed disyllabic forms within Indic—Indogermanische Grammatik, Band II, Akzent, Ablaut, pp. 15-18. These objections, however, do not refute the
quantitative theory as put forth by Lane and Cowgill. So long as
a pre-contraction sequence of at least three morae can be established
for pre-Germanic, it remains possible that extra-length can explain
the development of particular Germanic morphemes.

2.2.3. The difficulties which Marchand perceived in the quanti­
tative hypothesis led him to speculate that the laws of Germanic
finals might be better stated from a qualitative point of view
(The sounds and phonemes of Wulfilas Gothic, p. 101). A qualitative
theory was suggested as well by Kurylowicz and outlined in "Die
Flexion der germanischen schwachen Femininstämme," Studien zur
Sprachwissenschaft und Kulturkunde, Gedenkschrift für Wilhelm
Brandenstein, ed. Manfred Mayrhofer (Innsbrucker Beiträge zur
Kulturwissenschaft 14, 1968), pp. 85-91. This theory can trace
its antecedents back at least as far as the late 1870's and may
have found its impetus in the then novel reconstruction of a five
vowel system for Indo-European, a shift in theory which added the
mid-vowels *ô and *ê to the previously postulated *i-*a-*u system.

Among the studies known to me, the earliest which can claim
to present a qualitative theory in a pure and more or less complete
statement is Hermann Möller's article, "Zur Declination, germanisch
AEO in den Endungen des Nomens und die Entstehung des o (a2),"
PBB 7 (1880), 482-547. Möller writes: "Das ä der grundsprache,
griech. lat. ã lett. ä lit. o, war noch ursprünglich germanisch ã,
das ô der grundsprache, griech. lat. o lit. lett. ü, war germ. o.

... Jenes germ. ä fiel später, ausser in endsilben, mit germ.
ô zusammen, indem es gemeingermanisch ô ward." (p. 482). On page
483, he sets forth his theory: "Uebereinstimmend in allen germanischen dialecten ist das alte \( \ddot{a} \) überhaupt nur in betoner stammsilbe zu \( \ddot{o} \) geworden. . . . Im gemeinwestgermanischen auslaut, d.h. in germanischer auf vocal, nasalierten vocal oder vocal + \( z \) ausgehender endsilbe, germ. \( \ddot{a}, \ddot{a}n, \) und \( \ddot{a}z, \) ist das \( \ddot{a} \) in keinem westgermanischen dialect, auch nicht im hochdeutschen, zu \( \ddot{o} \) geworden, im auslaut werden also germ. \( \ddot{a} \) und \( \ddot{o} \) in allen westgermanischen dialecten scharf geschieden." Möller goes on to claim that West Germanic \( *-\ddot{a} \) and \( *-\ddot{e} \) had merged to \( *-\ddot{a} \) in final position. He summarizes his claims in a table which I repeat here as Table One:

Auslautendes in unbetoner silbe wird

| germ. \( \ddot{o} \) | ahd. \( -u \) | as. afr. ae. \( -u \), \( _{-u} \) = got. \( -a \) | an. \( *-u \) |
| \( \ddot{o}n \), \( \ddot{o}z \) | ahd. as. \( -o \) | afr. ae. \( -a \) = got. \( -\ddot{o}, -\ddot{o}s \) | an. \( -a, -ar \) |
| \( \ddot{a} \) | \( -a \) | \( -e \) = \( -a \) | \( -i \) |
| \( \ddot{a}n \), \( \ddot{a}z \) | \( -a \) | \( -e \) = \( -a \) | \( -i \) |
| \( \ddot{e} \) | \( -e \) | \( -e \) = \( -a \) | \( -i \) |
| \( \ddot{e}n \), \( \ddot{ez} \) | \( -a \) | \( -e \) = \( -\ddot{e}, -\ddot{e}s \) | \( -a, -ir \) |

Table One (after Möller)

Part of Möller's thesis is the claim that "auslautendes germ. \( -\ddot{o} \) wird westgerm. \( -u, \) germ. \( -\ddot{a} \) wird westgerm. \( -a.\)" (p. 486). He is aware, however, that the nominative singular of the \( \ddot{a} \)-stem nouns appears to contradict this claim: compare Germanic \( *-\ddot{a} \), Old English \( -u. \) Möller explains away this discrepancy by appealing to an early version of the laryngeal theory. He concludes that, in the \( \ddot{a} \)-stems, \( *-\ddot{a} \) originally appeared only in the weak cases; \( *-\ddot{o} \) originally
appeared in the strong cases (pp. 486-487). This explanation accounts for the nominative singular (a strong case), but creates difficulties in the accusative singular (supposedly strong) and genitive plural (supposedly weak). Möller allows the reshuffling necessary to explain these facts and thereby removes his theory from the realm of empirical investigation. He was criticized on these grounds by Gustav Burghauser in Germanische Nominalflexion auf vergleichender Grundlage (Vienna, 1888) pp. 4-5.

In 1891, M. H. Jellinek proposed a qualitative theory in Beiträge zur Erklärung der germanischen Flexion (Berlin: Speyer & Peters), pp. 1-14. Jellinek summarizes his views on unaccented vowels in a table (p. 14) which I repeat here as Table Two:

<table>
<thead>
<tr>
<th>Indogerm.</th>
<th>got.</th>
<th>ahd.</th>
<th>ags.</th>
<th>altn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ā</td>
<td>a</td>
<td>u</td>
<td>u</td>
<td>(hinterlässt u-umlaut)</td>
</tr>
<tr>
<td>ām</td>
<td>ō</td>
<td>a</td>
<td>e (ae)</td>
<td>a</td>
</tr>
<tr>
<td>ās</td>
<td>ōs</td>
<td>o</td>
<td>a [ae?]</td>
<td>ar</td>
</tr>
<tr>
<td>ē</td>
<td>a</td>
<td>e</td>
<td>e (ae)</td>
<td>_</td>
</tr>
<tr>
<td>ēm, ēn</td>
<td>ē</td>
<td>a</td>
<td>e (ae)</td>
<td>i (e)</td>
</tr>
<tr>
<td>ēs</td>
<td>ēs</td>
<td>ā, es</td>
<td>e (ae), es</td>
<td>ir</td>
</tr>
<tr>
<td>ō</td>
<td>a</td>
<td>u</td>
<td>u</td>
<td>*u</td>
</tr>
<tr>
<td>ōm, ōn</td>
<td>ō</td>
<td>o</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>ōs</td>
<td>ōs</td>
<td>o</td>
<td>as, a</td>
<td>ar</td>
</tr>
<tr>
<td>ĭ</td>
<td>i</td>
<td>i</td>
<td>e (i)</td>
<td>(i-umlaut)</td>
</tr>
<tr>
<td>ĭm, ĭn</td>
<td>ei</td>
<td>i</td>
<td>e (i)</td>
<td>i</td>
</tr>
</tbody>
</table>

Table Two (after Jellinek)
Unlike Möller, Jellinek concedes the merger of *a and *o in absolute finality and before final *-s. Like his predecessor, however, he restricts the distinction of *am and *om to West Germanic, refusing, for example, to see a parallel difference in Gothic giba (accusative singular) and gibō (genitive plural). In this and other cases, Jellinek's debt to Möller is clear and acknowledged (p. 10).

When Hirt put forth his earliest version of the quantitative theory ("Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen", 1892), he found it necessary to challenge earlier, non-quantitative views of the Germanic laws of final syllables. Some aspects of these earlier statements had carried over into Jellinek's account, and Hirt's arguments therefore apply against Jellinek's theory, even though no direct reference is made. On page 199, Hirt writes: "Gegen die Richtigkeit aller dieser Ansichten muss von einem andern Punkte aus operiert werden, der Kluge und Brugmann gemeinsam ist. Beide nehmen mit der Mehrzahl der Forscher an, dass im Germanischen im Auslaut nur gedeckte Längen als solche erhalten bleiben. . . . Ich leugne die Richtigkeit dieser Voraussetzung, und werde dies darzulegen unternehmen, indem ich den Nachweis zu erbringen versuche, dass Silben, die nie einen Nasal im Auslaut halten, nicht verkürzt sind, und dass Silben mit Nasal ihre Länge nicht erhalten haben. Und dies ist offenbar der feste Punkt, von dem aus allein die Frage nach dem schleifenden Ton in germanischen Endsilben definitiv erledigt werden kann."

Hirt begins his demonstration with the Gothic adverbs in -ô, and particularly the directional adverbs answering the question
'from where?' (p. 200). On page 201, he notes: "Für die got. Ortsadverbien auf -ō ist ablativische Herkunft sicher, einen Nasal für die Erhaltung der Länge in Anspruch zu nehmen geht nicht an, auslautendes germ. -ō ist hier als Länge erhalten, folglich ist die bisherige Fassung der Auslautgesetze nicht richtig." The ablative ending in question is Indo-European *-ōd. Hirt is assuming that retention of the -ō cannot be due to the following *-d, an assumption made explicit by Wilhelm Streitberg in his Urgermanische Grammatik, 4th ed. (1895; reprint, Heidelberg, 1974), page 182: "Um die Erhaltung der Länge zu rechtfertigen, hat man mehrfach die Hypothese aufgestellt, -d sei erst so spät abgefallen, dass es den voraussgehenden Vokal vor Verkürzung geschützt habe . . .; dass diese Annahme jedoch nicht ausreicht, lehrt aufs deutlichste die 3. Pers. Sing. Opt. got. wili aus idg. *yelīt neben wileis aus idg. *yelīs." Streitberg's example demonstrates, however, only that the shortening of long *ī followed the loss of Indo-European final *-t/*-d (see Subsection 3.4.6 below). For this fact to have any bearing on the development of long *ō, one must make the further assumption that long *ī and long *ō shortened simultaneously (or that the shortening of *ō was later than the shortening of *ī). This, however, has not been demonstrated and perhaps cannot be demonstrated.

One might pause here to recall that the deletion of short vowels and the shortening of long vowels are, in a sense, comparable processes, each reflecting the loss of one mora. With this in mind, it is interesting to note that deletion has affected high and non-high vowels at different periods in West Germanic. Thus compare Old English o-stem masculine nominative singular dag ( < *dagaz) 'day'.
and i-stem masculine nominative singular wine (< *winiz) 'friend'.

In the former, the non-high vowel *a has been deleted, while, in the latter, the high vowel *i has been preserved (as e). Returning to the similarity of deletion and shortening: it is at least not impossible that non-high vowels (e.g. *o) may have shortened earlier than high long vowels (e.g. *o), and indeed that the two shortenings may have bracketed the loss of Indo-European final *-d.

To establish directly the relative chronology of the shortening of *o and the loss of Indo-European final *-d, one needs a form to which both rules might apply. Unfortunately, the only suitable form would appear to be the ablative ending here in question. Taken at face value, the preservation of ablative -ô in Gothic and Old High German would seem to indicate only that the shortening of *-ô did not follow the loss of Indo-European final *-d in these two dialects. As long as this remains a possibility, the objection raised by Hirt carries no sting.

Hirt's second example for the retention of non-nasalized long *-ô is the n-stem nominative singular masculine. Hirt is none too clear in the early part of this section (p. 201)—which may explain why Streitberg omits this argument—but towards the end, Hirt writes: "Ein noch sicherer Fall ist ahd. nêfo, aind. nāpā, ahd. māno, lit. mēnu, also -t-Stämme. Wie wäre es möglich, dass diese Worte in die Analogie der -n-Stämme übergeführt wären, wenn nicht auch bei diesen Nominative auf -ô vorhanden waren." Apparently, Hirt means to say that the words for 'grandson' and 'moon' were once *nēfo and *mēno (nominative singular?) respectively, and that they lost the final
dental to become *nefo and *meno. Since these words appear as n-stems in Germanic, it would seem to follow that the n-stem nominative singular must have been *-o (*-s?).

The word for 'moon' appears as a masculine n-stem in all the dialects: Gothic mena, Old Icelandic mani, Old English mona, Old High German mano, and so on. Beside these forms, an original t-stem appears with the meaning 'month': Gothic menobs, Old Icelandic manobra, Old English monad (o-stem), Old High German manod. The gist of Hirt's argument regarding the two formations is repeated by Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, III, Wortbildungslehre (Berlin, 1967), p. 141: "... ahd. manod 'Monat' (in der Bed. "Mond' nach Verlust des Dentals in die n-Flexion übergegangen ahd. mano, ... " [italics added—AWJ]. There is only one problem here: the t-stems were consonant stems, and their nominative singular must have been pre-Germanic */-t+s/. Indeed, no case form of the t-stems ended simply in *-t, and in no case form could the dental be lost by regular phonological process in Germanic.

It might be instructive to compare Gothic mena/monob (etc.) with the corresponding Lithuanian pair mnuo/menesi-s. At the very least, this comparison should reveal that the differentiation may pre-date Germanic and that the pair has accordingly no value for determining the form of the Germanic n-stem nominative singular. As regards Sanskrit napat, Old High German nefo: t-stems are, for the most part, derivatives, and it is quite possible that Germanic has preserved the base form (recast? as an n-stem, cf. Gothic mena and t-stem menobs), while Sanskrit and other languages have preserved
only the derivative. In view of the phonological considerations offered above, this would seem to be the more reasonable explanation.

While Hirt's first two arguments have no force, his third counter-example does seem damaging to Jellinek's hypothesis. Jellinek had claimed that both *-ōm and *-ām yielded -ō in Gothic. Though this claim is clearly contradicted by the Gothic ā-stem accusative singular giba (< *ghebham), Jellinek and others could argue that Gothic here had extended the nominative form, giba (< *ghebha). Hirt cuts to the heart of the matter by citing the ja-stem accusative singular bandja (p. 202). Since the ja-stem nominative is -i for long stems, there can be little doubt that bandja is the original accusative. Thus it appears that Jellinek stands in error with the comparison: *-ōm, *-ām yield Gothic -ō.

I am not sure why Hirt's attack had so profound an effect on Jellinek. I suspect, however, that the lure of Greek and Lithuanian correlations coupled with a certain morphological confusion made Jellinek less willing than he might otherwise have been to defend his qualitative theory against what now appears a rather weak challenge. Whatever the reason, Jellinek revised his explanation in 1895 and proposed a combined quantitative-qualitative theory in "Zur Lehre von den langen Endsilben," ZfdA 39, pp. 125-151. The following year Hirt replied, in detail, in "Zu den germanischen Auslautgesetzen," IF 6 (1896), pp. 47-79. It will suffice here to note that Hirt carried the day, and that there have been few serious qualitative proposals since.

One notable exception is Jerzy Kurylowicz's article, "Die Flexion der germanischen schwachen Femininstämme," Studien zur

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Kurylowicz writes:


and further (p. 88):


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In a note, Kurylowicz states that, in North Germanic, *-q and *-q fall together as -e which then becomes -a.

Kurylowicz does not present his theory in much detail, and his reader is left to wonder what the specifics of the chronological developments might be, or whether a qualitative account can explain the difference between Old High German geba (accusative singular) and geba (nominative plural) in the a-stems, or indeed what evidence there might be for 'neutral quantity' in *-q and *-q. Nonetheless, though these and other questions remain unanswered for the moment, Kurylowicz has outlined a theory worthy of careful consideration. In essence, it states that such contrasts as Gothic -a/-o, Old High German -a/-o, and Old English -e/-a are to be equated with the Indo-European contrast *-a-/*-o- in unstressed position before final nasals and perhaps in other environments as well. In this, Kurylowicz is the direct heir of Möller and Jellinek.

2.2.4. It is no easy task to choose between the quantitative and qualitative theories in their modern, abbreviated forms. Each has plausibility and a certain amount of empirical support—enough so that one hesitates to treat either theory casually. Nonetheless, a principled choice is necessary here, and I hope to show below that the qualitative theory is slightly preferable to the quantitative hypothesis. I would emphasize beforehand, however, that there are but few forms in which the two theories can be directly opposed and that these, by themselves, do not fully reveal the advantages to be gained by preferring one theory over the other. Rather, the test forms suggest only that the qualitative theory is the more promising candidate for further investigation.
Before comparing the theories, it will be useful to discuss three areas of potential confusion: the o-stem ablative singular, the second class of weak verbs, and the Gothic genitive plurals in -e and -o. As noted above, the ablative, adverbial -o from Indo-European *-ōd may well owe its preservation to the following Indo-European *-d. Though ablative -o falls together with preserved -o in e.g. the genitive plural, this fact cannot tell us whether genitival -o was preserved by reason of its quantity or by reason of its quality.

In the Germanic second class of weak verbs, many scholars see the continuation of an Indo-European thematic conjugation in *-ōje/*-ōjo. In Germanic, the *-j- was lost, and the vowels contracted to produce the familiar -on-stem marker—see Warren Cowgill, "The inflection of the Germanic o-presents," Lg. 35 (1959), pp. 1-15. Whether one accepts it or not, this explanation of the on-verbs has no bearing on the quantitative-qualitative question. The loss of *-j- and subsequent contraction of the vowels are Germanic—not Indo-European—phenomena. Even if we find it necessary to postulate overlong vowels as the result of this purely Germanic contraction, that fact cannot possibly tell us that an Indo-European contraction produced overlong vowels and that such vowels survived into Germanic. Indeed, the connection between the on-verbs and the genitive plural is no more direct that that between the ablative and the genitive plural.

In Gothic, the genitive plural ends in either -e or -o, a fact which sets Gothic apart from the other Germanic languages since the latter reflect only Germanic *-ō (that is, *-ōm or *-öm), never

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Germanic *-e. It is important to note, however, that the Gothic dichotomy has nothing to do with an original Germanic distinction, whether quantitative or qualitative. Rather, the morphological bifurcation of the genitive plural would seem to be a Gothic innovation.

With these preliminaries understood, we may proceed to a comparison of the quantitative and qualitative theories of Germanic final syllables. It appears to be the case that there are only three morphemes suitable for this purpose: the pan-declensional genitive plural (contrasted with the a-stem accusative singular); the a-stem nominative plural in Early West Saxon (contrasted with the accusative plural); and the n-stem nominative singular masculine.

As explanations of the Germanic genitive plural, the qualitative and quantitative theories seem roughly equivalent. Under the terms of the former, the a-stem accusative singular/genitive plural distinction is to be correlated directly with an Indo-European distinction *-am/*-om, compare Greek ὕπατος accusative beside ὑπατός genitive. Thus Gothic a-/â (-e), Old English -e/-a, Old High German -a/-o.

In comparison, the quantitative theory is almost as direct. It postulates an Indo-European inflectional ending *-om which contracts with the thematic vowels *-o- and *-a- to produce an overlong *-5m. Thus the genitive is distinguished by quantity from the a-stem accusative singular, Indo-European *-am. The claim that the original inflection was *-om would seem to be supported by Sanskrit padām, Greek podon 'foot' (from *pod + om), though the corresponding athematic genitive plural in Balto-Slavic and Celtic suggests that
the original Indo-European ending might have been *-om rather than *-ôm. See Hans Krahe, *Indogermanische Sprachwissenschaft*, II, Formenlehre, 5th ed., (Berlin, 1969), p. 27; Charles-James N. Bailey, *Inflectional pattern of Indo-European nouns*, University of Hawaii Working Papers in Linguistics, vol. 2, no. 1 (January, 1970), pp. 85ff.; Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1970), p. 149. If the original ending was indeed short *-om*, then an overlong vowel could arise only in the a-stems. Here, however, there is a further complexity in the fact that the a-stems are laryngeal stems and that laryngeals appear to have been lost intervocally without causing the lengthening of vowels. That is, an a-stem (or -e₂-stem) genitive plural in *-e₂om should have yielded bimoric *-oom*: overlong *-ôm* would have to be a late creation arising from stem regularization after the loss of laryngeals. Though they lessen the initial attractiveness of the quantitative hypothesis, these complications do not invalidate the theory outright. For this reason, in that both theories seem able to account for the data in plausible ways, we cannot use the genitive plural as a basis for final decision. We might note, however, that the qualitative theory provides the more direct explanation.

Turning to the second test case, we must observe that, in Early West Saxon, -a is the ending of the a-stem nominative plural, -a or -e the ending of the accusative plural. These facts plus a comparison of the several Old English dialects would seem to indicate that there was once a distinction between the nominative and accusative plurals of a-stems, and that this distinction is reflected in
Early West Saxon nominative -\textipa{a}, accusative -\textipa{e}. It is possible that a similar distinction is reflected in early Alemannic—see Wilhelm Braune and Walther Mitzka, Althochdeutsche Grammatik, 12th ed. (Tübingen, 1967), p. 193.

The quantitative theory explains the distinction simply and directly: the Indo-European nominative plural ending was *-es, which contracted with the theme vowel *-\textipa{a} to produce an overlong *-\textipa{a}s. Thus, according to the quantitative theory, the Early West Saxon a-stem forms have the history shown in Table Three.

<table>
<thead>
<tr>
<th></th>
<th>I-E</th>
<th>Gmc.</th>
<th>EWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>gen. sg.</td>
<td>a+s</td>
<td>o\textipa{z}</td>
<td>e</td>
</tr>
<tr>
<td>nom. pl.</td>
<td>a+es</td>
<td>o\textipa{z}</td>
<td>a</td>
</tr>
<tr>
<td>acc. pl.</td>
<td>a+s</td>
<td>o\textipa{z}</td>
<td>e</td>
</tr>
</tbody>
</table>

Table Three

An original *-es is supported by the athematic stems (Greek podes, Sanskrit p\textipa{a}das, 'foot') and by the e-stems (Germanic *-o\textipa{z} from Indo-European *-o+es). Unfortunately, the quantitative theory has here the same problem as in the genitive plural. Loss of the intervocalic laryngeal in nominative plural *-eH\textipa{es} ought to produce the bimoric ending *-\textipa{a}s.

In contrast to the quantitative theory, the qualitative theory cannot explain the a-stem forms directly. Indeed, working back from Early West Saxon, the qualitative theory would require us to postulate West Germanic nominative *-\textipa{a}z, accusative *-\textipa{a}z in the a-stem plural. These forms are not, however, impossible. To explain them, one might believe that the merger of unstressed *-\textipa{a}# and *-\textipa{a}#
in absolute finality occurred prior to the merger of unstressed *a and *ô in other positions—compare N. van Wijk, "Germanisches; 1. Germanisches a in ausge- lautenden Silben," IF 22 (1907/1908), pp. 252-253. Such an early merger would lead to the a-stem paradigm shown in Table Four.

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<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
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<tbody>
<tr>
<td>N</td>
<td>*-ô</td>
<td>*-az</td>
</tr>
<tr>
<td>A</td>
<td>*-am</td>
<td>*-az</td>
</tr>
<tr>
<td>G</td>
<td>*-az</td>
<td>*-om</td>
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<tr>
<td>D</td>
<td>*-ai</td>
<td>*-am-</td>
</tr>
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</table>

Table Four

It is conceivable that the development of *-ô in the nominative singular led next to the replacement of *-az by *-ôz in the nominative plural, as postulated by van Wijk, "Ahd. deo, dio, blinto, alem. kebo," IF 24 (1909), pp. 28-29. (Compare also Section 3.1.2 (a) of the present study.)

Unfortunately, this is not the only reformation called for by the qualitative theory. One must claim as well that an original o-stem nominative plural in *-ôz was reformed to *-az in West Germanic—perhaps because short *ô and *a had merged prior to the merger of long *ô and *a. That is, given the o-stem paradigm shown in Table Five, one might postulate an extension of timbre to the nominative plural.
Table Five

<table>
<thead>
<tr>
<th>Sg.</th>
<th>Pl.</th>
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</thead>
<tbody>
<tr>
<td>N</td>
<td>*-az</td>
</tr>
<tr>
<td>A</td>
<td>*-am</td>
</tr>
<tr>
<td>G</td>
<td>*-asa</td>
</tr>
<tr>
<td>D</td>
<td>*-ai</td>
</tr>
</tbody>
</table>

The genitive plural escapes reformation perhaps because there is but a single genitive plural ending for all declensions, i.e. because the genitive plural is not declension governed as are the other cases. (On the possibility of *-až as the Germanic nominative plural of o-stem nouns, see further the appendix to the present study.)

With the revised a- and o-stem nominative plurals, all of the Early West Saxon forms follow regularly from (West) Germanic by the qualitative hypothesis. It must be admitted, however, that if we had only the i-stem nominative and accusative plural (and o-stem nominative plural) to account for, we should certainly explain them by the quantitative hypothesis. While the reformations required by the qualitative theory are not unreasonable, they are simply unnecessary in a quantitative statement.

There remains, however, the n-stem nominative singular masculine. The original Germanic morpheme is probably reflected in Old English -a, Old High German -o. North Germanic forms in -â (< æ̅) are often considered reflexes of an e-grade by-form, though some scholars have argued that this form may be the replacement of an original o-grade form. Thus Nils Lid concludes: "I alle fall
kan det i germansk berre påvisast ei nominativending i eintal av
maskuline an-stammer, med di både dei vestgermanske og nordiske
formene, og sameleis den gotiske på -a, må førast tilbake på
urgermansk -o(n)."— "Dem Nordiske nominativ singularis av mas-
different topic, E. C. Polomé has written: ". . . even the
assumption of an inherited nominative form in -en to account for
the ON ending -i seems superfluous." --"Notes on the reflexes of
IE /ms/ in Germanic," Revue belge de philologie et d'histoire,
45 (1967), p. 822. Polomé refers to the discussion in O. Szemerényi,
Studies in the Indo-European System of Numerals (Heidelberg, 1960),
pp. 157-164 and argues that the borrowing "Finn. mako 'stomach'
shows that ON originally had -on as well." A number of scholars
have suggested that Gothic, too, has replaced the inherited form
(see Section 3.1.5 (a) of the present study). The pros and cons of
replacement in Gothic and North Germanic need not detain us here,
however, for the question we are considering concerns primarily the
West Germanic forms.

It may be significant that the West Germanic masculine n-stem
nominative singular morpheme agrees with the reflex of the Germanic
genitive plural. For the qualitative theory, this agreement poses
no problem: the Germanic form of the n-stem morpheme is *-on,
compare Greek -on. (In both Greek and Germanic the form may re-
present Indo-European *-o with n extended from oblique forms. The
extension cannot have occurred in West Germanic times since the loss
of final nasals occurred in Germanic times. An n restored in West
Germanic would remain in Old English and Old High German.)

For the quantitative theory, however, the n-stem nominative singular masculine poses great difficulties. Under the terms of the quantitative hypothesis, Old English -a, Old High German -o in the n-stems must reflect a Germanic trimoric vowel, *-ə. According to Lane and Cowgill (see above), trimoric vowels result from the contraction of two 'normal' vowels at least one of which is long. Yet it is difficult to explain the existence, in Indo-European, of two contractable vowels in the n-stem nominative singular. Indeed, so far as I am aware, no one has ever derived this morpheme through vocalic contraction. Lane believes that the West Germanic forms are replacements, while Gothic and North Germanic reflect bimoric *-ën — "Bimoric and trimoric vowels and diphthongs: laws of Germanic finals again," JEGP 62 (1963), pp. 161-162.

Older handbooks often suggest that a trimoric vowel in the n-stem nominative singular masculine developed from *-on with loss of *-n and compensatory lengthening through sandhi in Indo-European. (Lane denies this, pp. 159, 162). Yet there are problems with this explanation as well. If such sandhi processes operated in Indo-European (or pre-Germanic), then one might also expect a trimoric vowel in the ə-stem accusative singular (< *-əm), or a bimoric vowel in the o-stem accusative singular (< *-om). To claim that the effects of sandhi were retained only in the n-stem nominative singular is simply to be arbitrary.

This, however, is not the only difficulty. We must also note that sandhi phenomena are phonetic. Even were we to grant the
prior existence of sandhi variants in the n-stem nominative singular masculine, we must certainly ask how these variants came to be phonemic. To merely state that phonetic variants "somehow" became phonemic is to beg the question entirely. Our older handbooks pre-date the emergence of phonemic theory, and thus their authors were not aware of this problem. Nowadays, however, we must find the sandhi theory less than persuasive. It appears, therefore, that the existence of a trimoric vowel in the n-stem nominative singular masculine of Indo-European, Germanic, or West Germanic may be viewed as unlikely at best.

We have seen that there is some reason to doubt the existence of trimoric vowels in all three of the test cases, and also that the qualitative hypothesis can explain two of the three quite directly (a-stem genitive plural versus accusative singular; n-stem nominative singular masculine equals o-stem genitive plural). This theory can also adequately account for the remaining test case, since the reformations which it entails are no less plausible than those entailed elsewhere by its rival. For these reasons, then, I will not postulate trimoric vowels in the Germanic forms discussed in the remainder of this study, but will follow the claims of the qualitative theory throughout. Those who would still follow the quantitative hypothesis may, however, look upon the present study as a test of the alternative (qualitative) hypothesis. I believe that this alternative offers useful insights and reasonable explanations which are not possible under the traditional account.

2.2.5. Before ending this section, I would note that there are
several implications of the qualitative theory which call for further discussion. First, and most obvious: the theory requires us to believe that, with the possible exception of vowels in absolute final position, unstressed Germanic *ā and *ō did not merge until dialectal times. This follows from the fact that *ā and *ō appear to remain distinct before final *-z in West Germanic, while they have merged in this position in Gothic and North Germanic; and further, that *a and *e appear to remain distinct when nasalized in pre-Gothic and West Germanic, though they have merged in North Germanic (compare genitive plural -ā < *-ōm, ā-stem adjective accusative singular -ā < *-ām). I see no immediate difficulty with this requirement of the theory. We know from the labiovelar evidence assembled most recently by Joseph Voyles—"Simplicity, ordered rules, and the first sound shift," Lg. 43 (1967), 636-660 (esp. 648-649)—that Indo-European *a and *o remained distinct in Germanic until after the time of the consonant shifts (compare Section 2.1 of the present study). And it is certainly possible to believe that neutralization of the ā/ō distinction first occurred in stressed syllables during the period of Germanic unity, only to spread to unstressed syllables in the prehistoric dialectal period. Compare, in this regard, Herbert Penzl's evidence that Germanic *e merged with *ā in West Germanic stressed syllables, but remained distinct in unstressed position—"Early Germanic names and vowel shifts," Names 14 (1966), pp. 65-68.

There remains, however, a further objection. Specifically, we might ask, how can *ā and *ō remain distinct in final unstressed syllables while they merge in medial unstressed syllables in all the
dialects? For Gothic, there is no real problem: final *a and *o remain distinct only when nasalized. The merger rule thus states that non-nasal *a becomes *o in unstressed position.

Matters are slightly more complex in West Germanic since, in that branch, *a and *o appear to remain distinct not only when nasalized, but also when originally followed by final *-z. For West Saxon, we might postulate the following sequence of developments (refer to Table Six): 1. final nasals are lost (producing nasalized vowels); 2. in absolute finality, non-nasal unstressed *a and *o merge to *u, which becomes *u; 3. final *-z is lost; 4. unstressed *a and *o shorten to *a and *o in absolute finality; 5. long *a and *o (all remaining are protected) merge to *o in unstressed position. Since merger (rule 5) applies to long vowels, and since vowels in absolute finality have shortened, merger applies only in medial or protected syllables.

RULE:  

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-st. acc. sg.</td>
<td>-am</td>
<td>q</td>
<td>a(e)</td>
<td></td>
</tr>
<tr>
<td>a-st. gen. pl.</td>
<td>-om</td>
<td>q</td>
<td>o(a)</td>
<td></td>
</tr>
<tr>
<td>a-st. nom. sg.</td>
<td>-ā</td>
<td>o&gt;ū</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a-st. gen. sg.</td>
<td>-āz</td>
<td>ā</td>
<td>a(e)</td>
<td></td>
</tr>
<tr>
<td>medial</td>
<td>-ā-</td>
<td>-ā-</td>
<td>-o-</td>
<td></td>
</tr>
</tbody>
</table>

Table Six

Possible West Saxon Developments

There is, however, yet another difficulty. For other West-Germanic dialects, the sequence of developments postulated for West Saxon implies that there is no quantitative distinction between e.g. the *a-stem accusative singular and nominative plural. For
Old High German, however, just this distinction is marked by Notker. It is important to recognize, however, that Notker’s length distinctions do not support the quantitative theory—indeed, he marks as long both the o-stem nominative plural and the a-stem nominative plural. Rather, the recorded distinctions seem to indicate that nasalized long vowels have shortened while long vowels originally followed by final *-z have retained their length. For Old High German, then, we might postulate the following sequence (refer to Table Seven): 1. final nasals are lost (producing nasalized vowels); 2. in absolute finality, unstressed non-nasal *ā and *ō merge as *ō, which becomes *u; 3. unstressed nasalized *-ā and *-ō shorten to -a and -o in absolute finality; 4. unstressed non-nasal *ā becomes *ō (all are protected; *ō remains distinct from *ō); 5. final *-z is lost; 6. *ō reverts to *ā in absolute finality; 7. remaining *ō (those not affected by 6) merge with *ō. This system appears to be able to handle the West Saxon forms as well (given subsequent West Saxon developments).

RULE:

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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-st. acc. sg.</td>
<td>-ām</td>
<td>ā</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o-st. gen. pl.</td>
<td>-ōm</td>
<td>ō</td>
<td>o</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neut. nom. pl.</td>
<td>-ā</td>
<td>ō &gt; ū</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a-st. nom. pl.</td>
<td>-āz</td>
<td>ūz</td>
<td>ū</td>
<td>ā</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>medial -ā-</td>
<td></td>
<td>ū-</td>
<td>ū</td>
<td>-ō-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table Seven
Possible Old High German Developments

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I hope it is obvious that the rule sets just presented are mere sketches of possible developments in Gothic and West Germanic, and by no means the product of detailed investigations in each of the several dialects. I intend the sketches to show only that, in principle, unstressed *ä and *ö could have remained distinct in final syllables while merging in medial or protected syllables. It is this possibility which entitles the qualitative hypothesis to further consideration. For Gothic, that further consideration forms the remainder of this study.
SECTION 2.3

Germanic *-om in Gothic—the problem of the genitive plural

The fate of Germanic *-om in Gothic is, to a very large degree, the problem of the genitive plural. Perhaps every other morpheme in *-om or *-am (in traditional terms, *-om, *-om) is understood relatively well. The genitive plural, however, has remained mysterious, as witness the many different attempts to explain it, and the failure of any one of these to gain widespread acceptance. A glance at other Indo-European languages would lead us to expect *-om as the Germanic genitive plural for all declensions. The Germanic dialects other than Gothic would also lead us to reconstruct uniform *-om. Gothic, however, shows two genitive plural morphemes in nouns and adjectives. In the a-stems, the an-stems, the ein-stems, and in the feminine pronoun, the ending is -o. Elsewhere (except for the first and second personal pronouns) the ending is -e. To date, most scholars have considered -o the phonologically regular form, -e the mysterious reformation. Thus Gunnar Bech—"Über die gotischen Gen. Pl.-Endungen," Lingua 23 (1969), 55-64—has written (p. 55): "Die Endung got. -o . . . bietet an sich kein genetisches Problem; ihr liegt ohne Zweifel das zirkumflktierte ie. -om (oder -am) zugrunde . . . ." As I hope to show below, the assumption that -o is regular may constitute a fatal disorientation to the problem. First, however, it is necessary to look at earlier explanations of the two Gothic genitive plurals.
One early theory would attribute the Gothic distinction to Indo-European. Thus Otto Bremer writes ("Germanisches ê," PBB 11 [1886], p. 37): "Der genitiv pluralis endigte im idg. auf \(-em\) oder \(-öm\). Erstere form wird nur durch den gotischen gen. auf \(-ä\) repräsentiert. Letztere form setzen an. \(-ä\, asg. afr. \(-a\), as. \(-o, ahd. \(-o\) voraus. Das gotische ist in diesem falle die einzige indogerm. sprache, welche die idg. e-form erschliessen lässt."

Approximately the same idea underlies Møller's derivation of \(\bar{e}\) from \(*-eom\) — review of Urgermanisch by Fr. Kluge in Anzeiger für indogermanische Sprach- und Altertumskunde, 33 (1914), p. 58. This theory, of course, merely turns the problem over to the Indo-Europeanists. Not surprisingly, most of these have declined the offer. As Karl Brugmann noted—"Der gotische Genitivus Pluralis auf \(-ê\)," IF 33 (1913/1914), p. 273—no other Indo-European language, nor any other Germanic language, supports an ablaut variant \(*-ëm\) in the genitive plural; the distinction \(-ê, -ë\) is a Gothic innovation, therefore a Gothic problem.

Other explanations can be divided roughly according to whether they view the basis of the innovation as primarily phonological or primarily morphological in nature. One of the earliest morphological efforts was put forward by W. van Helten in "Grammatisches [XXIX]," PBB 17 (1893), p. 571: "Für die entwicklung letzterer endung [genitive plural in \(-ê\) plus nasal. AWJ] in der masc. und ntr. o-declination ist meines erachtens der gen. sg. verantwortlich zu machen: nach \(*-eso\) mit charakteristischem \(-ë-\) im gen. sg. (gegen-über dem nom. und acc., vielleicht auch dem dat.-instrum. dieses numerus), im gen. pl. für altes \(*-ô\) + nasal die endung \(*-ë+ nasal
mit congruentem vocal." The extension of the ending beyond the o-stems (and consonant stems) is then explained by a complex—and ultimately unconvincing—chain of analogical reformations. In 1909 van Helten revised the analogical parts of his theory, but kept the central claim—"Grammatisches [LXXII]," PBB 35, pp. 273-275. Even so Brugmann (IF 33) remained unconvinced, noting (with references, p. 274) that van Helten's theory could not explain the transfer of -e to the feminine i-stems and consonant stems.

An attempt to answer this challenge was made by J. Vendryes in his article, "Sur le génitif pluriel des substantifs en Germanique," IF 45 (1927), 364-369. On page 366, Vendryes writes:

Si l'on suppose au contraire qu'au génitif pluriel le germanique commun conservait deux désinences différentes, *-om et *-ām, réparties notamment entre les thèmes en *-o-, *-i-, *-u- et les thèmes en *-a-, la raison d'être de l'innovation du gotique apparaît immédiatement en toute clarté. La façon dont les finales ont été traitées en germanique compliquait en effet gravement la situation du génitif pluriel. Seule la finale à voyelle longue suivie de nasale subsistait. La disparition des voyelles brèves en syllabe finale supprimait la marque du cas dans la plupart des thèmes, et particulièrement des thèmes masculins et neutres. La langue ne pouvait accepter cet accident sans tenter d'y remédier.

One must ask, of course, why "la langue ne pouvait accepter cet accident." Supposing that Vendryes could answer this, one must then ask why the language should create a new genitive in -e rather
than extend the genitive in -ō as the other Germanic dialects supposedly did. If the notion was one of gender differentiation, why then was -ē extended to the i-stems, u-stems, and consonant stems regardless of gender? It all seems highly unlikely.

Similar problems were encountered by proponents of a second morphological theory— one which based the genitive in -ē on an instrumental, ablative, or dative in -ē. An early version was put forward by Francis A. Wood in his article, "Morphological Notes," SP 20 (1923), pp. 99-109. On page 107 Wood writes:

The Goth. gen. plur. in -ē stands by itself, unexplained. One point, however, is clear: the variation -ē : -ō in the gen. plur. was brought about primarily to differentiate the genders (Brugmann II, 2, 239). But this variation did not come by analogy with the e : o ablaut in o-stems, but from the abl. sing., and for the following reason. The original gen. plur. -ōm fell together in Germ. with the abl. -ōd, -ād. There was therefore at one time in Goth. gen. plur. *dago:
abl. sing. *dago : dage by the side of gen. plur. *gibo (IE. ā-stem) : abl. sing. *gibo (but not *gibe). Since in form the gen. plur. in -ō, coincided completely with abl. sing. in -ō, they came to be felt as identical. And inasmuch as only the õ-abl. occurred in the ā-stems, while both the ō- and ō-forms occurred in the o-stems, the ō-form came to be felt as peculiarly belonging to the ā- (Goth. ē-)stems, hence gen. plur. gibo, sunjo, triggwo, tuggono, manageino (and by analogy laiseino). But since in the o-stems there was a choice
of -e-forms in the abl. sing., the -e-form came to be regarded also as a gen. plur. and associated primarily with masc. and neut. forms of o-stems, as dage, waurde, harje, kniwe; and secondarily with stems in which an o-abl. would not occur, hence gaste, anste, suniwe, handiwe, gumane, hairtane, fadre, nasjande, baurge, etc.—

There are several problems here. First, it is difficult to believe that competing ablative forms survived in the o-stems without a differentiation of function. Secondly, given ablative singular -o/-e, genitive plural -e, one would expect -e to be formalized as the ablative ending, -e as the genitive. Certainly one would not expect an eradication of the difference between singular and plural. Finally, Wood's theory does not explain how -e came to be extended to "gaste, anste, suniwe, handiwe, gumane, hairtane, fadre, nasjande, baurge, etc."

Edward H. Sehrt put forth a similar theory in "Der Genitiv Plural auf -e im Gotischen," Studies in Honor of Hermann Collitz (Baltimore, 1930), pp. 95-100. According to Sehrt, Gothic had an ablative-instrumental in -e which merged semantically or syntactically with the genitive plural in adverbial function, then somehow replaced the genitive in its non-adverbial function and got extended beyond the o-stems. I confess that I do not quite follow Sehrt's reasoning. C. E. Bazell—"IE final unaccented e in Germanic," JEGP 36 (1937), 1-9—bases the reformation of the genitive plural on what he sees as an instrumental-dative in -e. Like his predecessors, Bazell fails to explain why his proposed reformation should have
taken place at all.

Karl Brugmann's explanation—"Der gotische Genitivus Pluralis auf -e," IF 33 (1913/1914), pp. 272-284—was also morphologically based. Brugmann derived the genitive in -e from a denominative adjective formation which, like the possessive pronoun, came to assume a genitive meaning. This theory has little to support it, and has not been accepted—see Wolfgang Morgenroth, "Der Genitiv Pluralis im Gotischen," PBB 87 (1965), p. 332, and Winfred P. Lehmann, "The Gothic genitive plural -ē: focus of exercises in theory," in Papers in linguistics in honor of Léon Dostert, ed. by W. M. Austin (The Hague, 1967), p. 109.

Two phonological explanations were offered by H. Ebel in his 1855 article, "Bermerkungen zur gotischen Declination," ZVS 4, pp. 138-154. Ebel's first account derives -e from the influence of a preceding *-j-:

Wären auf die zusammenstellung des goth. fēra, mēs, hēr, Kreks mit ahd. fiara, mias, hiar, Chriach bei Grimm gesch. d. d. spr. 844. weitere schlüsse zu bauen,—und die schwankung des ē in ei, welche hier und da auftritt, z.b. þizei, dalei, Judaiei, leikeis neben pize, dale, Judaie, lekeis, wie der umstand, dass -ja sich im inlaut in -ei verwandelt, vgl. sökeis, hairdeis, lassen allerdings eine solche möglichkeit durchblicken . . . —so könnte man auch in dem ē des gen. pl. und noch deutlicher im ei der nebenformen die regelrechte goth. vertretung eines nach dem auslautgesetz aus -jām enstandenen -ja erkennen, somit also die form gaste als die ursprüngliche,
fiske und namne als Übergänge in die i-declination ansehen.

[p. 147]

The difficulties here are perhaps obvious today: Old High German *ia* is a later development from *é*—not a proto-form; Gothic *ei* in the io-stems is from *-ij*; *ei* spellings for *é* are scribal only; *-jam* does not yield *-e* in the ja-stem accusative singular or genitive plural. Indeed, a similar theory was proposed by Osthoff and later withdrawn—see the references in Morgenroth, p. 332.

Ebel's second explanation seems to involve an original quantity distinction. He writes (p. 150): "Der gen. pl. [of the o-stems] erklärt sich leicht aus aän, woraus mit abwurf des n nach dem lautgesetz aa = é wurde, im gegensatz zur weiblichen endung -ó aus aän, aa." Oskar Wiedemann expressed a similar idea in "Der Dativus Singularis der germanischen Sprachen," ZVS 31 (1892), 479-484. According to Wiedemann (483-484), bimoric *ó* in Gothic inflectional syllables became *é*, trimoric *ó* remained *o*. Here again, one must wonder about the *a*-stem accusative singular.

Gustav Must tries a variant of the quantity theory in his article, "The Gothic genitive plural in *-e,*" Language 28 (1952), 218-221. According to Must, the Germanic genitive plural morpheme was *-óm. Thus the ending was lost everywhere save in the *a*-stems. In the i-stems, the following developments occurred: *ghostei-om* → *gastí-an* → *gasti*. In Gothic, the genitive in *é* is really *-í* extended from the i-stems. This *í* is written as *é* to avoid confusion with the relative particle *-ei* (that is [í]). As Morgenroth points out (p. 329), the overshort genitive plural is not attested in the other dialects. In addition (Morgenroth, 329), Must's *-óm*
should have contracted with the theme vowel to produce *-om in the o-stems. This *-om could not disappear. One must also ask why -I --rather than -O -- should be extended as the genitive plural. That Gothic scribes (or Wulfilas) would attempt an orthographic distinction not reflected in pronunciation merely to distinguish morphemes as thoroughly unconfusable as the genitive plural and a pronominal relativizing particle is an idea hardly to be taken seriously.

Yet another quantity solution was proposed by Gunnar Bech in "Über die gotischen Gen. Pl.-Endungen," Lingua 23 (1969), 55-64. According to Bech, pre-Gothic -om became -o, pre-Gothic -om became -e in the genitive plural of i-, u-, and r-stem nouns, but -a in e.g. the a-stem accusative singular. The difference Bech attributes to accent (pp. 62-63). Genitival -e in the o-stems spread from the pronouns; pronominal feminine -o spread from the a-stems. The theory is ingenious but less than persuasive.

A purely phonemic account was offered by Winfred P. Lehmann: "The Gothic genitive plural in -e: focus of exercises in theory," Papers in linguistics in honor of Léon Dostert, ed. by W. M. Austin, (The Hague, 1967), pp. 108-111. Lehmann compares the short vowel and long vowel systems of Gothic (actually pre-Gothic) and concludes that e and o are structurally equivalent to a. He also notes that all Gothic genitive singulars can be divided according to the frontness or backness of their vocalic element. On page 110 Lehmann writes: "Equipped with a phonological system in which there was no contrast of low vowels when short, speakers of Gothic may have also treated the long low vowels as non-contrasting morphologically, and they may have selected -e from the morphologically non-contrasting..."
unit \( \{\text{o} \} \) for the masculine and neuter plurals . . . " [i.e. those which correspond to front vowel genitive singulars—AWJ]. The term "morphologically non-contrasting unit" is somewhat confusing since \( \text{e} \) (pronominal instrumental singular) and \( \text{o} \) (nominal genitive plural) certainly do contrast morphologically, as well as phonemically. Apparently, though, Lehmann means to suggest a Structuralist modernization of van Helten's (1893) theory that the genitive singular contrast has been extended to the genitive plural. In Lehmann's theory, the motive for the extension is provided by highly abstract phonological relationships which do not, however, seem able to explain the morphological developments.

With this brief review of previous work, let us pause here to consider what is known. In Gothic we have two genitive plural endings, and we may suppose either that they were both inherited from Germanic or that the distinction between them first arose in pre-Gothic. If we postulate that both derive from Germanic, we are faced by two problems. First, only one ending has Indo-European cognates. Secondly, no Germanic language other than Gothic has two endings. Since only one ending has Indo-European cognates, the other must have arisen in proto-Germanic. But the absence of the second ending outside of Gothic suggests either that North-West Germanic reduced the distinction or that the distinction did not exist in Germanic after all. It is difficult to believe that such a distinction, associated as it is with gender differences in major inflectional classes (\( \text{a} \)- and \( \text{a} \)-stems), would be lost in all North-West Germanic dialects. Accordingly, it seems somewhat more reasonable to suppose that the distinction did not exist in Germanic.
That is, the distinction would seem to have been a pre-Gothic development.

Now let us consider the distribution of the endings. Excluding Gothic, all other Germanic dialects show a single genitive plural ending which we may reconstruct as Germanic *-om. In Germanic and many other Indo-European languages, this ending (or its cognates) appears as the genitive plural of nouns, adjectives, and pronouns regardless of stem formation or gender. This is an important point, for if it can be shown that one of the two Gothic endings is tied to either stem class or gender or to both stem class and gender, and if it can also be shown that the other ending is not so constrained, then we may reasonably postulate that the unconstrained ending continues the Indo-European genitive (functionally, at least) while the constrained ending is the innovation.

For quite some time scholars have assumed that Gothic -ō and North-West Germanic *-ō in the genitive plural are cognate forms. The assumption is reasonable since Gothic ō and North-West Germanic *ō otherwise correspond. But let us, momentarily, set aside this reasonable assumption as a possible red herring and turn to the distributional evidence. When we do so, we find that the genitive in -ē occurs not only in major declensions but in such minor, almost marginal stems as those in i, u, or consonant. Furthermore, the genitive in -ē occurs with both masculine and feminine stems in the minor declensions. These are the problems which have thwarted past explanations of -ē based on the morphology of ō-stems or on simple gender distinction.

Turning now to the -ō-genitive, we find that it occurs only in
the ἀ-stem nouns and adjectives, the feminine pronouns, and the feminine ἄ-stems. There can be little doubt that the feminine ἄ-stems have been modeled after the feminine ἀ-stems and that the ἄ-stem genitive plural therefore has no bearing on the original state of affairs (see Subsection 3.1.5 (b)). Similarly, the pronouns, where they show nominal endings at all, follow the pattern of the ὀ-stem masculine and neuter/ἄ-stem feminine nouns and adjectives. That is, all ὀ-genitives in Gothic can be tied intimately to the ἀ-stem declension of feminine nouns.

The distribution of ἔ-genitives and ὀ-genitives in Gothic suggests strongly that ἔ (not ὀ) continues the Indo-European and Germanic genitive plural in function. Since it is the more highly constrained in distribution, the ὀ-genitive (not the ἔ-genitive) would appear to be the more recent form. In fact, if we take ἔ as the 'proper' (i.e. older) Gothic genitive plural for all declensions—the one corresponding functionally to the Germanic and Indo-European genitive plural—it is rather easy to see how the ὀ-genitive could have arisen in the ἀ-stem nouns and adjectives. Specifically, in the ἀ-stems, the genitive plural in ἔ would have been anomalous with the theme vowel, as shown below in synchronic Gothic terms:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>N -a</td>
<td>-οs</td>
</tr>
<tr>
<td>A -a</td>
<td>-οs</td>
</tr>
<tr>
<td>G -οs</td>
<td>*-é</td>
</tr>
<tr>
<td>D -ai</td>
<td>-οm</td>
</tr>
</tbody>
</table>

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This anomaly could be removed by extending the theme vowel \(-\text{o}\) to the genitive plural. Such a change would not only simplify the \(\text{a}\)-stem inflection with no loss of case distinction, but would also strengthen the contrast of gender between \(\text{o}\)- and \(\text{a}\)-stems by introducing phonemic opposition in a morphological category not previously distinguished for gender.

In his article, "Über die gotischen Gen. Pl.-Endungen" (Lingua 23 [1969], pp. 55-64), Gunnar Bech has described how a form which arose in the \(\text{a}\)-stem nouns and adjectives could have spread to the \(\text{n}\)-stems and pronouns. Bech divides Gothic substantival inflections into two groups which he labels trigeneric (those which distinguish masculine, neuter, and feminine) and bigeneric (those which distinguish only masculine and feminine). Together, the \(\text{o}\)- and \(\text{a}\)-stem nouns and adjectives form one of the major trigeneric systems. The other comparable systems are the \(\text{n}\)-stems and the pronouns with gender. Bech's observation thus exactly delineates the range of the \(-\text{O}\)-genitive in Gothic and enables us to explain why the gender distinction in the genitive plural should appear in some declensions (the trigeneric), but not in others (the bigeneric). As pointed out above, where the gender distinction in the genitive does not appear, the undifferentiated genitive is always \(-\text{e}\).

From the distributional evidence, the difficulties encountered by those who would explain \(-\text{e}\) as an innovation, and the corresponding ease with which \(-\text{o}\) may be accounted for as an innovation, it would seem most likely that the \(-\text{O}\)-genitive is older than the \(-\text{O}\)-genitive in Gothic. It remains to be asked, however, whether \(-\text{e}\) is a phonological development of the \(*-\text{om}\) which must be reconstructed for
Germanic. If we disallow a qualitative distinction between \( *\tilde{a} \) and \( *\tilde{o} \) in Germanic final syllables we must probably answer this question in the negative, for there are several clear cases in which Indo-European \( *\tilde{a} \) plus nasal fails to yield \(-\tilde{e} \) in Gothic. If, however, we follow the qualitative theory (2.2 above) and distinguish Germanic \( *\tilde{a} \) and \( *\tilde{o} \) in final syllables, then the question becomes much more interesting. Specifically, we must then ask whether there are any cases in which Indo-European \( *\tilde{o} \) plus nasal has yielded something other than \(-\tilde{e} \) in Gothic. One such ending, Germanic \(-\tilde{on}, \) Gothic \(-a, \) might be the masculine n-stem nominative singular. Some scholars have claimed, however, that Gothic reflects here not Germanic \(-\tilde{on} \) but Germanic \(-\tilde{en}, \) while others have suggested that the original Gothic ending has been replaced (see Subsection 3.1.5 (a) below). That is, the masculine n-stem nominative singular is not a clear counterexample to the proposed development of \(-\tilde{om} \) to \(-\tilde{e} \) in pre-Gothic.

Significantly, under the terms of a qualitative theory, there are no other morphemes which might be compared to the genitive plural. This means that the proposed development is not contradicted by anything surviving in attested Gothic. The change remains, of course, highly unusual; but if we deny its phonological nature, we must then find some non-phonological means (analogy [to what?], borrowing [from whom?]) to explain the apparently unconstrained replacement of \( *\tilde{o}(m) \) by \( *\tilde{e} \) in the pre-Gothic genitive plural. For the time being, at least, it seems somewhat simpler to postulate a phonological development of nasalized \( *\tilde{o} \) (but not of nasalized \( *\tilde{a} \)) to \( *\tilde{e} \) in pre-Gothic unstressed position. This.
simple statement, however, is merely a description of what seems
to have happened diachronically, and is not necessarily a phono­
logical rule in the usual sense. Such diachronic 'rules' may
seem synchronically unusual because they are abbreviations--i.e.
because we cannot always recapture the steps of the process but
must be content to summarize the result. In the present instance,
it is possible, perhaps, that all nasalized non-high long vowels
fronted (o → e, a → ae), after which *ae reverted to *a. Or,
again, it is possible that nasalized *o first unrounded to *r and
that this rather marked spread vowel later merged with its unmarked
front equivalent *e. Without texts, however, such speculation is
idle, and we are perhaps best advised merely to accept the descript­
tive statement *o(m) → e without trying to make it seem less
peculiar. The rule does account for the data without contradiction
or inconsistency, and this may be all we can ask.

Accordingly, we might draw the following sketch of events:
1) at some stage of pre-Gothic, nasalized *o (but not nasalized
*a) became *e in unstressed position; 2) this change created an
anomaly in the e-stem genitive plural; 3) the anomaly was removed
by extending the theme vowel -a- (later -o-) to the genitive plural;
4) this extension created a gender distinction (previously unheard
of) in the genitive plural of a major trigeneric system; 5) the
gender distinction was extended to other trigeneric systems, but
not to bigeneric systems.

Some of the points just mentioned have not gone unnoticed in the
past. Most recently, a theory similar to what I suggest was pro­
posed by Vittore Pisani in his article, "Ein Kapitel der gotischen

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Pisani's theory was rejected by Morgenroth (p. 332) on the grounds that o → e / ___ m is an improbable rule. This is a misrepresentation, however, since Pisani emphasizes not the labial nature of m but the nasalization inherent in o upon the loss of m. A more serious objection to Pisani's theory is that it attributes a genitive plural in *-am to Indo-European. This, however, is unnecessary as was demonstrated by Hermann Paul as early as 1877. In his article, "Die Vocale der flexions- und ableitungs-Silben in den aeltesten germanischen Dialecten," (PBB 4), Paul wrote (pp. 473-474):

Wir haben gesehen, dass im gen. pl. und bei den adverbialem wie hande, hidre die übrigen dialecte ein o voraussetzen. Ferner erscheint in einsilbigen wörtern oder durch einen consonanten gestützt o in hver, hvamme etc., während ahd. tagu, huemu auf ein vor der verküzung bestehendes o weisen. Auch ahd. alts. so, ags. altn. svā, altfr. so, sa wird = got. sve zu setzen
sein, während es zunächst auf *svō zurückzuführen ist, vgl. s. 341. In allen diesen Fällen ist wahrscheinlich das got. o aus urgerm. ā entstanden, und wir haben die Erhöhung des o zu ē zu parallelisieren mit der des o zu a. Dieselbe betrifft nur das auslautende o. Vor consonanten und in vorletzter Silbe hat keine gotische Endung ein ē. 1) [1) Die 2. sg. präet. nasides etc. darf nicht hierher gezogen werden, weil hier Composition vorliegt.] Dagegen im Auslaut wird man nach einem besonderen grunde forschen müssen, wenn o erhalten ist. Am einfachsten ergibt sich ein solcher in der 1. 3. sing. opt. präaes. und der 2. sing. imp. der verba auf -ōn aus der Analogie des durch alle übrigen Formen durchgehenden o. Eine ähnliche Deutung lasse sich auch auf den gen. pl. der an-stämme anwenden, bei denen o sonst im ganzen plur. durchgeht; der Anschluss der an-stämme an dieselben wäre ganz natürlich.

The reasons which led Paul to postulate a change of *ō to ē can no longer be accepted. Thus, for the adverbs like hidrē, Thomas L. Markey ("A note on Germanic directional and place adverbs," SL 24 [1970], pp. 73-86) has reconstructed *-ōre as the Germanic ending (better *-ōret, see Section 3.3 below). Similarly, instrumental hwe beside Old High German tagu cannot be cited since there is some reason to believe that Germanic displayed a pronominal instrumental in *-ē beside an o-stem nominal instrumental in *-ō. Indeed, in his article, "Zur Geschichte des germanischen Vocalismus," PBB 6 (1879, pp. 1-261, Paul himself compares Gothic bē, hwe; Old Icelandic þi, hvi; and Old English by, hwy (p. 215).
basis of these forms and Old High German tagu, Paul reconstructs
\( \ddot{o}/\ddot{e} \) nebenformen. Likewise, Gothich swe beside Old High German so,
Old Icelandic svá is something of a problem since the comparison
is directly countered by the feminine demonstrative, Gothic só,
Old Icelandic sú. The value of Paul's argument lies not so much
in its proposed change of *\( \ddot{o} \) to e as in its realization that the
Gothic genitive plural in *-o need not be inherited. Had sub-
sequent scholars come to the same realization, and had they not
been bound by a theory which failed to distinguish unstressed *\( \ddot{a} \)
and *\( \ddot{o} \) in Germanic finals, then the problem of the Gothic genitive
plural might have seemed much less difficult.
SECTION 2.4

Synchronic Gothic Ⓒ, Ⓐ, and a in final syllables

In synchronic Gothic, there are a number of phonemic alternations which, at first glance, seem difficult to explain with a diachronic theory based solely on qualitative distinctions in the long vowels. Relevant forms are given in Table One.

1. ə-stem nom. sing. kar'ist beside kara 'care'
2. masc. dem. PN, dat. sg. þammuh " þamma
3. masc. int. PN, dat. sg. hwammeh " hwamma
4. masc. int. PN, acc. sg. hwanōh " hwana
5. masc. rel. PN, gen. pl. þizeei " þize
6. fem. rel. PN, gen. pl. *pizœei " þizo

Table One

Forms one and two contain a final a which is lost before enclitics beginning with a vowel. Forms three and four contain final a's which appear as Ⓒ and Ⓐ respectively before enclitics. Forms five and six contain Ⓒ and Ⓐ vowels which never alternate with a.

In an effort to explain these forms, one might be tempted to fall back on quantitative distinctions. For example, the Ⓒ and Ⓐ which never alternate with a might be derived from underlying trimoric vowels. Then alternating Ⓒ and Ⓐ could be derived from bimoric vowels, while a varying with zero could be an underlying short vowel. This is not a felicitous solution, however. Forms
three and four clearly call for a rule which will change $e$ and $o$ to $a$ in absolute finality. Forms five and six are exceptions to this rule, but so are adverbial $habro$ and feminine $n$-stem nominative singular $tugga$. Neither of these last is likely to derive from a trimoric vowel, and it is therefore unlikely that dreimörigkeit is the correct synchronic explanation. (That dreimörigkeit is unlikely to be the correct diachronic explanation, see Section 2.2.4 and compare Edgar Polomé, "On the origin of Germanic Class III of weak verbs," Beiträge zur Indogermanistik und Keltologie Julius Pokorny zum 80. Geburtstag gewidmet (Innsbrucker Beiträge zur Kulturwissenschaft Band 13), ed. Wolfgang Meid (Innsbruck 1967), p. 88.)

We might seek to revise the above explanation by claiming that alternating $o$ and $o$ are phonemically short $/e/$ and $/o/$, while non-alternating $e$ and $o$ are phonemically long $/e/$ and $/o/$. Yet this explanation, too, is unsatisfactory. First, it requires us to set up two new phonemes for Gothic (short $/e/$ and $/o/$) and to claim that these are found only in the troublesome alternating pronominal forms. Secondly, it exempts these postulated phonemes from the short vowel deletion rule which affects short $/a/$ in $bammuh < bamma + uh$.

If quantity provides no ready answer, we might seek to distinguish alternating and non-alternating $o$ and $e$ by means of quality. That is, we might speculate that non-alternating $o$ and $e$ are phonemic $/o/$ and $/e/$, while alternating $o$ and $e$ are phonemic $/o/$ and $/e/$. Then we could claim that $/o/$ and $/e/$ become $a$ in absolute finality, but merge with $/o/$ and $/e/$ otherwise. The $a$
from /ɔ/ and /ɛ/ is long and therefore exempt from the rule which deletes final short a in bammuh.

Unfortunately, here too we have arbitrarily postulated new phonemes merely to account for alternating ō and ŋ. This fact should tell us something, however. If we are forced to arbitrariness in our efforts to distinguish alternating ō and ŋ from non-alternating ō and ŋ, perhaps we ought simply to claim that alternating ō and ŋ are marked. This, after all, seems the most conservative statement of our knowledge: some ō and ŋ vowels become a in absolute finality, some do not. The vowels which do become a are more restricted in distribution than those which do not. In short, the variable vowels are marked as undergoing a rule which changes ō and ŋ to a in absolute finality.

Once we have seen that alternating ō and ŋ are marked as undergoing the lowering rule, a solution to the larger problem begins to appear. Thus such forms as hwanoñ ~ hwana presuppose a historically earlier pair hwanoñ ~ hwano and a somewhat less ancient rule, unstressed ō → a / _ _ #. Let us suppose that this rule applied to all final ō's in the language at the time of its addition to the phonology. That is, let us suppose that surface [o] ceased to exist in absolute finality of polysyllabic words. It should be obvious that if a new surface [o] </o> were created in absolute finality of polysyllabic words, this new ō would not alternate. That is, creation of a new final ō subsequent to the operation of unstressed ō → a / _ _ # would require that the old ō be marked as undergoing its lowering rule.

All non-alternating ō's in Gothic are relatively new. The
genitive plural in -ö is a replacement of older -ë (2.4), tugòo probably takes its vowel from the pronouns or from the accusative (compare managei, managein) (3.1.5 (b)), while adverbial -ö in habroö is from the ablative ending *-ōt with late loss of *-t (2.2.3, 3.3). Final -ö in such forms as salbō may also be relatively new (3.5.2). In contrast, all alternating ö's seem rather old. Apparently, all derive from pre-Germanic *-öm. To be sure, such feminine nominative singulars as ainohun seem to be exceptions, but these are perhaps reformations on the model of monosyllabic nominative soö, accusative boö. That historical *-ā yields short -a, not alternating ö ~ a, is clearly shown by nominative singular kara ~ karist. It appears, therefore, that the theory just outlined can indeed explain the markedness of alternating ö.

A similar explanation can account for alternating e. From hwamme~hwamma we postulate a historically earlier pair hwamme~hwammë and a somewhat less old rule, unstressed e → a / _#/.

Right now, the origin of ë need not concern us, though we might note that there is no reason to suspect that the ë was nasalized (see Section 2.7). What is most important is that the creation of a new ë in absolute finality of polysyllabic words would lead to the markedness of old (alternating) ë. As the distribution of non-alternating ë makes clear, the new ë was created in the genitive plural by the shift of nasalized ö (from -öm) to ë. (On -ë in the directional adverb, see Section 3.3).

The rule(s) which affected alternating ë and ö lowered them to a. It is not unreasonable to believe that the rule(s) also shortened
unprotected \( \tilde{e}/\tilde{o} \rightarrow a \) since we have no reason to suspect length distinctions in Gothic final \(-a\)'s. I will here postulate that the shortening preceded the lowering, and that the lowering also affected short *-o from Germanic *-\( \tilde{o} \) (as in the first singular present indicative). Since nasalized *\( \tilde{o} \) becomes non-alternating \( -e \), it must be exempt from the shortening rule. Since nasalized *\( \tilde{a} \) becomes alternating \( o \), it is evident that nasalization cannot exempt nasalized *\( \tilde{o} \). Apparently nasalized *\( \tilde{a} \) (alternating \( o \)) and oral *\( \tilde{e} \) (alternating \( e \)) are to be grouped in opposition to nasalized *\( \tilde{o} \) (non-alternating \( e \)) by reason of the feature [ - round]. This, however, is a purely descriptive statement based on the postulate that, if two (sets of) forms develop differently, and if the original (sets of) forms differ in only one feature, then the difference in the development is probably to be correlated with, if not attributed to, the difference in the feature. Compare here the fact that vowel deletion in West Germanic affected non-high short vowels earlier than it affected high short vowels (see Subsection 2.2.3 for an example). It is no less plausible that rounding inhibited shortening (in pre-Gothic) than that height inhibited deletion (in West Germanic). These admittedly speculative considerations are reflected in the following diachronic rule set (Table Two).
1. \[
\begin{array}{c}
o \\
+ \text{long} \\
- \text{nasal}
\end{array} \rightarrow \begin{array}{c}
o \\
- \text{long}
\end{array} \] / \_

2. \[
\begin{array}{c}
a \\
+ \text{long} \\
- \text{nasal}
\end{array} \rightarrow \begin{array}{c}
a \\
- \text{long}
\end{array} \] / \_

3. period of encliticization (including \( \ddot{\text{\textcircled{V}}} \rightarrow 0 / \_\_ + \text{V} \))

4. \[
\begin{array}{c}
\text{V} \\
+ \text{long} \\
- \text{round} \\
- \text{high}
\end{array} \rightarrow \begin{array}{c}
\text{V} \\
- \text{long}
\end{array} \] / \_

5. \[
\begin{array}{c}
\text{V} \\
- \text{long} \\
- \text{high}
\end{array} \rightarrow a / \_

6. \[
\begin{array}{c}
o \\
+ \text{long} \\
+ \text{nasal}
\end{array} \rightarrow \begin{array}{c}
e \\
+ \text{long}
\end{array}

7. \( \ddot{\text{a}} \rightarrow \ddot{\text{o}} \)

8. new \( \ddot{\text{o}} / \_\_ \)
In section 2.7 it will be argued that Gothic *pamma derives from older *bammo (ultimately from *bamnoi). Rule one applies to *bammo, to the first singular present indicative verbal ending, and to other forms in final *-ō. It shortens the final vowel. Rule two applies to final *-a, as in the a-stem nominative singular *kara 'care, sorrow'. By 'period of encliticization' I mean to indicate the affixation of the particles *-uh, *-ī, and the contraction of such forms as *kara ist. Rule four applies to final long ā's (all are nasalized—see rule two) and to final long ō's. It shortens these vowels in absolute finality, creating such doublets as *hwammeh ~ *hwammē, and *hwanāh ~ *hwanā. Rule five merges short, non-high vowels to a in absolute finality. Thus *pamma, karā, hwamma, hwana. Rule six creates the genitive plural in -ē and eventually leads to the markedness of alternating ē. Rule seven changes all long ā's to long ō's (thus hwanōh). Step eight marks the appearance of long ō in absolute finality. It was this development which led to the markedness of alternating ō.

These are not the only possible rules to account for the data. I offer them as a plausible, but preliminary, explanation only. What I wish to stress here is that a fairly complicated set of synchronic Gothic alternations can be handled diachronically without an appeal to trimoric vowels. The rule set just presented constitutes a working hypothesis about Gothic diachrony. It will be tested and refined in the remainder of this study. (For a revised rule set, see Appendix.)
SECTION 2.5

On i-syncope and u-retention in Gothic

Prior to 1892 there was little disagreement about the fate of Germanic short i and short u in pre-Gothic final syllables. Most scholars seem to have accepted the formulation advanced by R. Westphal in his 1853 study, "Das Auslautgesetz des Gotischen" (ZVS 2, pp. 161-190) that "In ursprünglichen endsilbigen mehrsilbigen wörter wird kein ursprünglich kurzes a und i geduldet, sondern es tritt apokope oder apharesis ein, je nachdem der vocal den auslaut bildet oder ein einfacher consonant darauf folgt. . . . Dagegen bleiben u und au . . ." (p. 164). Indeed an almost identical statement appears in B. Delbrück's article, "Die Declination der Substantiva im Germanischen Insonderheit im Gotischen," ZfdP 2 (1870), p. 386, where reference is made to earlier work by Ebel and Scherer. This early view seems once more worthy of acceptance, though for a number of years, it was questioned or rejected outright by more than one Germanic philologist.


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suggests that this syncope might be conditioned by the length of the preceding syllable (p. 3), but he mentions as perhaps more likely a loss, in polysyllabic forms, not shared by disyllabic forms regardless of length: "Die regel über die apokope des u im acc. sg. cons. wörter im got. liesse sich vielleicht also auch so fassen, dass die dreisilbigen wörter auslautendes u apokopiren, die zweisilbigen wie fōtu, tunbu es erhalten." (pp. 3-4).

Kahle's rule for loss of u in third syllables was reiterated and defended by W. van Helten in "Grammatisches [I]," PBB 15 (1891), pp. 455-456. In the same year, M. H. Jellinek re-affirmed the older view without, however, commenting on the polysyllabic question: "Die verhältnisse im got. sind bekannt. -a und -i im auslaut and vor e fallen ab; -u bleibt erhalten, ebenso ursprünglich auslautendes -i (als -i). Ein einfluss der quantität der wurzelsilbe ist nicht nachzuweisen; ..." --Beiträge zur Erklärung der germanischen Flexion (Berlin, 1891), p. 17.

The following year, 1892, saw what had once been near unanimity turn to profound disagreement. In his article, "Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen; zweiter Teil, die schleifende Betonung im Germanischen und die Auslautgesetze," (IF 1 [1892], 195-219), Hermann Hirt challenged the traditional view and suggested that, in Gothic as also in Old English and perhaps in Old Icelandic as well, Germanic short i and short u had been lost following a long syllable but preserved after a short (pp. 215-216). Hirt admitted (p. 216) that the argument could not be proved with certainty, but he felt that such evidence as did exist pointed towards syllable length as a
conditioning factor. Wilhelm Streitberg was less retiring. In his *Urgermanische Grammatik*, 4th ed. (1895; reprint, Heidelberg, 1974), pp. 173-177, Streitberg argued forcefully that pre-Gothic had indeed lost *-i and *-u under conditions exactly comparable to those obtaining in Old English. That *i* appeared to have been lost in the *i*-stem nouns (nominative and accusative singular) regardless of stem length, while *u* appeared to remain in the *u*-stem nouns under all conditions, were facts properly to be explained as opposite analogical extensions from an earlier uniform pattern.

Once Hirt and Streitberg had drawn the battle lines, debate followed swiftly. Here it will be most convenient to review this debate first as it applied to Germanic *u*, and only then as it applied to Germanic *i*. In each case I think it can be shown that the evidence does not support the Hirt and Streitberg position.

Hirt's evidence for loss of *u* after long syllables consists of one of the two forms cited by Kahle—Gothic tagr 'tear' (cf. Sanskrit आश्रु, Latin dacruma, Greek δακρυ—plus the claim that most surviving Gothic *u*-stems display short stem-syllables, long-stem forms like *fotus* having been, originally, consonant stems (p. 216). Streitberg cites as well (p. 177) the second of Kahle's forms—Gothic sutis [sic, for sūtis] 'sweet' (cf. Sanskrit svādūś, Greek ἱδός).

The first arguments against this evidence came from Axel Kock and were contained in his article, "Kleine gotische Beiträge," PBB 21 (1896), pp. 429-436. On page 429, Kock admits the possibility that *u* was lost in words of three or more syllables, but
suggests that u probably remained in words of two syllables regardless of syllable length. He offers, initially, this general argument (pp. 429-430): long-stem forms like Gothic airus, airu 'messenger' are supposed to be reformations on the model of the short stems, yet there are attested in Gothic some thirty-one long stem masculine and feminine u-stems beside only eight short-stem forms. Within a closed system, generalization of a phonological pattern would presumably assimilate the smaller class to the larger, contrary to what Hirt and Streitberg have maintained. Furthermore, granting that many of the long-stem forms were originally consonant stems assimilated to the u-declension after development of *-um from syllabic *-m in the accusative singular, one must certainly ask how this assimilation could have occurred at all if -u had been lost after long stem-syllables. As regards Gothic tagr, Kock compares Old Icelandic tár, then the pair Gothic wandus, Old Icelandic vǫnd 'twig, rod'. Noting that the absence of u-umlaut in Old Icelandic parallels the absence of -u in Gothic, Kock concludes that Germanic *tagru- had gone over to the o-declension at an early date (pp. 430-431)—i.e. before the presumed loss of u by phonological rule in pre-Gothic.

W. van Helten—"Grammatisches [XLIX]," PBB 21 (1896), p. 477—makes the same point as Kock regarding the relative numbers of long- and short-stem u-nouns. On tagr, he adds: "Ich antworte hier mit hinweis auf lat. cornu und germ. horn, das nach urn. horns unbedingt als a-stamm zu gelten hat." Hirt replied in 1897—"Grammatisches und Etymologisches," PBB 22, pp. 223-237—pointing out that cornu is misleading in this context. The word is an o-stem
in Celtic as well as in Germanic, a fact which suggests that Latin (not Germanic) has shifted the declension class and that cornu-horn is not to be compared with dacruma-tagr (p. 223). Van Helten responded in "Zur Gotischen Grammatik," IF 14 (1903), pp. 60-89 (see especially p. 66), pointing to the word gairu 'goad, sting' as a counterexample to Hirt's proposal. Even earlier, however, R. Bethge had correctly concluded that the evidence for loss of *-u after long syllables was less than convincing—see "Vokalismus des Gotischen," Laut- und Formenlehre der altgermanischen Dialekte, ed. by Ferdinand Dieter (Leipzig, 1900), p. 30. Joseph Wright concurred in his Grammar of the Gothic Language (1910; second ed., London, 1954), p. 35. It remained, however, for R. C. Boer to add one final counterargument in his article, "Over I- en U-Syncope in het Gotisch," Neophilologus, 2 no. 4 (1917), pp. 266-271.

On page 270, Boer writes:

Het laat zich trouwens gemakkelijk bewijzen, dat de nom. acc. sing. op us, u bij de langstammige woorden geen analogieformaties kunnen zijn. Bij de substantiva zou dat misschien nog gaan. De gen. en dat. sing. zijn eigenaardig genoeg, en ook al de vormen van het plurale konden hier meewerken tot het herstel van een verloren u. Maar hoe stelt men zich deze analogie bij de adjectiva voor? Welke casus zijn hier karakteristiek voor de u-declinatie? Juist de nom. s. m. en f. en de nom. acc. s. n.; dat zijn echter juist de casus, waar u gesyncopeerd zou zijn, indien de leer juist was.
There are some fourteen certain or probable u-stem adjectives attested in Gothic. Of these, perhaps two are short-stems. The Hirt-Streitberg theory requires us to believe that, following the loss of -u after long syllables, pre-Gothic *suts went over to the i-stems unaccompanied by some dozen other adjectives which were morphologically identical. These, instead, were remodelled on the basis of two short-stemmed u-adjectives, despite the fact that none of the twelve displayed the distinctive u-stem nominative and accusative singular endings.

It is obvious that, even under the Hirt-Streitberg interpretation, the development of sutis is not representative of a shift affecting an entire form-class or sub-class. Rather, sutis seems to be a nonce reformation, something like the development of dative plural nahtam for *nahtim (?) 'nights' beside dagam 'days'. But if sutis has gone its own way, one need not assume that the loss of u preceded the shift in stem class, and particularly so in view of the adjectives which did not follow *suts. That is, eliminating sutis, one really has only the questionable evidence of tagr that a loss of u has occurred at all. At this point, I would note that the word for 'tear' is discussed in considerable detail by Alan S. C. Ross, "Contributions to the study of u-flexion (concluded)," TPhS 1954, pp. 87-91. On page 89, Ross derives the Gothic form from *dakróm.

It seems most reasonable to conclude, therefore, that u was lost only in words of three or more syllables and that no loss occurred in disyllabic forms. This is the position taken by M. H. Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), p. 92;
and by Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik, 4th ed. (1927; reprint, Munich, 1960), pp. 90-91. Most subsequent handbooks have concurred. (The seeming loss of u in polysyllabic forms will be discussed further below.)

If we turn now to unstressed -i, we find a similarly weak case. We must note first of all that the syncope of -i cannot be a Germanic rule since -i- is preserved in Runic of the fifth century (gastIR, Berga, Sunde), but lost in Gothic of the fourth. That is, whatever rule we postulate for the loss of i in Gothic must be a Gothic rule. Hirt and Streitberg postulate a conditioned syncope dependent upon preceding syllable length. Since the older theory postulated an unconditioned syncope, it is clear that Hirt and Streitberg must demonstrate that i remains when the conditions for syncope are not met. Otherwise their proposal remains a mere assumption, and an unwarranted assumption at that.

Here is the evidence put forward in support of the Hirt-Streitberg position: First, the masculine i-stems have all gone over to the o-stem declension in the singular and therefore provide no evidence regarding syncope. Since the feminine i-stems are all, or nearly all, long-syllabled stems, their evidence for syncope is actually evidence for syncope after long syllables (Hirt, p. 216; Streitberg, p. 173). Secondly, short stem es-stem nouns have such nominative singulars as riqis 'darkness', agis 'fear', and sigis 'victory', while long stems show syncope: beihs 'time', weihs 'village' (Hirt, pp. 216-217; Streitberg, p. 173). Third, the comparative adverb typically ends in -is; the irregular comparative adverbs mins 'less', wairs 'worse', and bana-seibs 'further'
are all long-syllables (Hirt, p. 217; Streitberg, pp. 173-174). Streitberg adds as well (p. 174) the note that -i- is usually present as a connecting vowel in nominal compounds, though it is lost in bruf-fabs 'bridegroom' and büt-haurn 'trumpet', both of which have long-stemmed first elements.

The last point can be eliminated at once as was demonstrated by R. C. Boer in his article on i- and u-syncope in Gothic. On page 267, Boer writes: "Indien men nu bruf-fabs en büt-haurn moet opvatten als klankwettige vormen,—en beide zien er antiek genoeg uit,—dan kan de oorzaak van het verlies der i moeilijk in iets anders gezocht worden dan in de accentueering de woorden, en men kan vermoeden, dat deze woorden het hoofdaccent op het tweede lid hadden. Bruf-fabs, büt-haurn verhouden zich dan tot naudibandi, matibalgs gelijk andniman (met accent op het verbum) tot andanems (met accent op het praefix)." A similar conclusion is reached by Elmar Seebold in his article, "Erhaltung und Schwund des Kompositions-vokals im Gotischen," ZVS 82 (1968), 69-97. The nominal compounds give us no evidence at all for a syncope rule conditioned by preceding syllable length.

Some of the other points were accepted by van Helten—"Grammatisches [XLIX]," PBB 21 (1896), pp. 476-477. They were later repeated by P. M. Boer, "De i-Syncope in het Gotisch," Neophilologus, 30 (1946), pp. 43-46; and by A. M. Sturtevant, "Certain Gothic cruxes," JEGP 49 (1950), pp. 83-84. These last, however, add nothing new to the argument while they ignore much that is old. In actuality, the case for conditioned syncope cannot be maintained.
The first point mentioned by Hirt and Streitberg—that the feminine i-stems give evidence for syncope after long syllables—is, of course, no argument at all since it does not demonstrate that i was retained after short syllables. Indeed, the case can be neatly reversed, as was demonstrated by M. H. Jellinek in his *Geschichte der gotischen Sprache* (p. 91):

Hirt, IF I, 261 vermutet, dass ira Got. wie im Westgerm. -i nach kurzer haupttoniger Silbe erhalten blieb. Man könnte dann die N.A. Sing. der alten es-Stämme *agis*, *hatis*, *riqis*, *sigis*, *skabis* als lautgesetzlich begreifen, ebenso die N. Sing. der Adjektiva *sutis* T 3,3 AB, *nawis* R 7,8 (A). Aber gegen Hirts Annahme spricht doch, dass dann die N.A. Sing. der substantivischen kurzsilbigen männlichen i-Stämme wie *hup*, *mats*, *mat*, *muns*, *mun*, *naus*, *gums*, *gum*, *slah*, *stabs*, *stap* nach den langsilbigen umgebildet sein müssten. Nun haben aber die männlichen i-Stämme im Sing. die Flexion der a-Stämme angenommen, wozu doch wohl der Vokalschwund im N.A., *gasts*, *gast* wie *dags*, *dag*, den Anstoss gegeben hat. Wären die lautgesetzlichen Formen der kurzsilbigen *matis*, *mati* u. ä. gewesen, so hätten sich wahrscheinlich bei ihnen Formen der ursprünglichen i-Deklination erhalten, wie dies im As. (z. B. D. *meti* zu N.A. *meti*) der Fall ist.

The second point—that short-stemmed es-nouns show -is in the nominative singular—looks more promising than the first, but is likewise uncompelling. First, there is the obvious difficulty that these nouns are historically -es-stems, not -is-stems. Even if
there were a quantity sensitive syncope rule at work here, it need apply only to original e --unless one could also show that the shift of e to i necessarily preceded the syncope of i. Secondly, though there seems to be a quantity related difference between rigis and beihs, it is also true that the word ahs 'ear of corn' (a short stem) argues for general syncope. Furthermore, it must be noted that the expected vowel -i- is absent from oblique case forms in words like beihs, weihs, and ahs. This leads us to an interesting observation recorded by, among others, Friedrich Kluge: "Schwundstufe im Suffix, das dann als blosses s (z) erscheint, zeigt sich in got. ais = ahd. er "Erz' in übereinstimmung mit lat. aes; vgl. auch got. ahs Plur. ahss "Ähre' gegenüber lat. acus und ahd. ahir; got. beihs Gen. beihis Gen 'Zeit' = lat. tempus, got. weihs Gen. weihsis N. "Dorf, Flecken' (urverwandt mit lat. vicus M.)." --Urgermanisch (Strassburg, 1913), p. 206, anm. 3. Useful comparisons were provided by Wolf von Unwerth in "Zur Geschichte der indogermanischen es/os-Stämme in den germanischen Dialekten," PBB 36 (1910), 1-42. On page 22, von Unwerth writes: "Das alte s-suffix, das zur bezeichnung männlicher tiere dient (in beispielen wie ahd. dahs, fuhs, lahs, luhs, ...) hat uns hier nicht weiter zu beschäftigen, da es im germanischen ohne bindevocal erscheint und nirgends den Übergang von s in z zeigt." The class of vowelless forms, which von Unwerth believes arose in Germanic times, is larger than the set of masculine animal names and includes, among other forms, Gothic ahs (p. 23): "Got. ahs n. 'ähre': im gotischen hat der nom. sing. sein s lautgesetzlich erhalten, und die durchführung desselben
durch das gesammte paradigm könnte auf einzelsprachlicher analogie beruhen. Dieselbe erklärung aber lässt sich nicht anwenden auf die nordischen formen: ä. dän. ax n., aschw. aisl. norw. ax n." Von Unwerth goes on to note that the vowel appears in West Germanic forms. But the vowelless pattern clearly appears in such sets as

<table>
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<tr>
<th>OHG</th>
<th>O. Ice.</th>
<th>OE</th>
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<tr>
<td>dahs</td>
<td>*pɔx</td>
<td>'badger'</td>
</tr>
<tr>
<td>fuhs</td>
<td>fox</td>
<td>'fox'</td>
</tr>
<tr>
<td>lahs</td>
<td>lax</td>
<td>'salmon'</td>
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<tr>
<td>luhs</td>
<td>lox</td>
<td>'lynx'</td>
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<tr>
<td>fahs</td>
<td>fax</td>
<td>'hair'</td>
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<tr>
<td>sahs</td>
<td>sax</td>
<td>'dagger'</td>
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(The first four entries are from Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, III, Wortbildungslehre, Berlin, 1967, p. 135; the last two are from von Unwerth, pp. 7 and 6 respectively). That this pattern existed in Gothic as well is likely a priori and made all the more likely by Old Icelandic ax, Gothic ahs.

be doubted. That Gothic _ahs, _beih, and _weihs reflect such formations is plausible enough for these words to be useless as evidence for syncope.

Finally, it is important to note that the _es-stems have joined the _o-declension in Gothic. R. C. Boer emphasizes this point in his study of _i- and _u-syncope. On page 267, Boer asks cogently whether the formal merger preceded or followed the syncope of _i. In an effort to answer this question, he compares such Old English doublets as _sige, _sigor, _daeg, _dgor --noting that the forms in _r follow the _o-declension. On page 268 Boer finds it likely that similar doublet forms existed in Germanic. Though one might not wish to follow Boer this far, it is certainly true that such forms as Gothic dative singular _riqiza show addition of the _o-stem ending after the _es-stem marker. A similar pattern in the accusative would yield *riqizam, and it is not at all difficult to see how this form could arise. The following paradigm of the Indo-European neuter _es-stems is derived from Charles-James N. Bailey, *Inflectional Pattern of Indo-European Nouns, University of Hawaii Working Papers in Linguistics, vol. 2, no. 1, Honolulu: Jan. 1970, p. 136; Hans Krahe, *Indo-germanische Sprachwissenschaft, II, Formenlehre, 5th ed., (Berlin, 1969); and Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft (Darmstadt, 1970).
Significant is the fact that the endings of the nominative-accusative and genitive plural were indistinguishable from the o-stem forms already in Indo-European. From this it is but a small step to reform the dative plural as *-esomis, or the genitive singular as *-esoso. Nor is it impossible to believe that nominative singular -os, identical to an o-stem masculine ending and apparently lacking the stem-formant -es-, was "corrected" to *-esom. And, too, if the monophthongization of o-stem locative -ai (< -oi) to -e was early, as it seems to have been, then -es-stem instrumental *-ese could have been equated with this form. So far as I am aware, no scholar subsequent to Boer has answered his challenge by demonstrating that the syncope of i necessarily preceded the reformation of the es-stems on the model of the o-stems. Until such a demonstration is at hand, one can hardly cite the es-stem nominatives in -is as evidence for the conditioned syncope of i.

The third point is likewise unconvincing. Granted, -i- is not present in the adverbial comparatives mins 'less' (cf. comparative minniza), wairs 'worse' (cf. wairsiza), and bana-seips 'further'. Granted as well that the three words all
have long stem-syllables. The question we must ask is whether the two givens are related more than accidentally. That i is preserved after long syllables in the Gothic adverbial comparatives hauhis 'higher', haldis 'more', and nehwis 'nearer' suggests that they are not, and this impression is only strengthened by the fact that abbreviated comparatives exactly comparable to mins and wairs occur in Old High German and Old Icelandic as well. Thus Braune and Mitzka write—Althochdeutsche Grammatik, 12th ed. (Tübingen, 1967), p. 230: "Die § 265 aufgeführten anomalen Steigerungen haben auch im Adverb eigentümliche kürzere Komparativformen. Es heisst das Adv. baz (zu Komp. Adj. bezziro), wirs (zu adj. wirsiro), mer (zu adj. mero), min (zu adj. minniro)." Compare Noreen, Altnordische Grammatik I (University of Alabama Press, 1970), p. 303: "Besonders ist zu merken die suppletorische komparation (vgl. § 440) folgender adverbia: ... verr ... minnr, mibr ... meir(r) ... betr." Significant here is the lack of umlaut in verr and betr.

The Old High German and Old Icelandic forms suggest that Gothic mins and wairs may trace their peculiarity to Germanic or pre-Germanic times (compare G.H. Mahlow, Die langen Vocale AEO in den europäischen Sprachen [Berlin, 1879], pp. 45-46). Since i-syncope is a Gothic (or pre-Gothic) rule, it cannot be reflected in these forms. As regards bana-seips: it is obviously not like haldis. Whatever the explanation of this divergence, it must be obvious that the absence of i in bana-seips cannot possibly demonstrate that i is retained after short syllables. Recall that it is not the loss of i but its retention that Hirt and Streitberg
Other scholars, most recently Wolfgang Krause—Handbuch des Gotischen, 3rd ed. (Munich, 1968), p. 94—, have cited the i-stem adjectives sutis 'sweet, calm' and nawis 'dead' in an effort to support the Hirt-Streitberg hypothesis. Unfortunately, the attempt is misguided since comparative evidence makes it all but certain that sutis is a long-stem. R. C. Boer has offered perhaps the most plausible explanation of these two unusual forms in his Oergermaansch Handboek 2nd ed. (Haarlem, 1924), p. 65: "Het éénmaal overgeleverde sutis kan niet een nom. s. van een i-stam zijn: i is hier een schrijfwijze voor ei. Het éénmaal voorkomende nawis als fem. bij naus is niet een nom. s. van een adjectivischen i-stam—de nom. s. m. zou dan ook nawis moeten luiden—maar een substantivische i-iö-formatie... van het type mawi, hivi, die haar s te danken heeft aan half-adjectievisch gebruik. (Het on. geeft aan deze geheele klasse r in den nom. s.: maer, tir, ylgr)."

Considering the arguments presented above regarding both i and u in Gothic, I believe one can only conclude that Hirt, Streitberg, and those who would follow them on these points have failed to establish their case. The facts about Germanic unstressed i and u in Gothic would appear to be essentially those stated by Westphal well over a hundred years ago: unstressed i is lost in absolute finality or when followed by a single final consonant: unstressed u remains. To this one might only append a statement that final u appears to have undergone apocope in words of three or more syllables. This statement, however, may bear closer
There is no evidence that \textit{u} was syncopated before a single final consonant, regardless of the number of preceding syllables. Rather, the rule appears to be that \textit{-u} in absolute finality underwent apocope when the preceding syllable was unstressed. This rule is supported most clearly in the \textit{n-} and \textit{r-} stem accusative singular, e.g. \textit{guman 'man'}, \textit{brobar 'brother} from \*\textit{gumanu}, \*\textit{brobaru}. It is contradicted by the \textit{u-} accusatives of such polysyllabic \textit{u-} stem nouns as \textit{wratodus 'journey'}, \textit{gaunopus 'lamentation'}, \textit{ibnassus 'evenness'}, \textit{ufarassus 'abundance'}, \textit{biudinassus 'kingdom'}, and \textit{drauhtinassus 'warfare'}. In "Grammatisches [I-XII]," PBB 15 (1891), W. van Helten suggested that \textit{-u} in such forms had been restored by analogy to the bisyllabic forms (e.g. \textit{magus 'boy'}) where \textit{-u} was regularly retained (pp. 455-456). His suggestion is plausible, but incomplete. In addition to the influence of the bisyllabic forms, \textit{-u} might have been restored in the accusative of the polysyllabic forms because \textit{-u-} appeared as well in the nominative. That is, as in the \textit{i-} and \textit{o-} stems, the accusative was felt to equal the nominative minus \textit{-s}. Compare and contrast the consonant stems where loss of \textit{-u} would produce e.g. \textit{weitwod 'witness} beside nominative \*\textit{weitwobs}. Here again, accusative equals nominative minus \textit{-s}. Here, too, as also in the \textit{n-} and \textit{r-} stems, there was no \textit{u} in the nominative which might evoke a restoration of \textit{-u} in the accusative.

The explanation just presented ought, however, to make us somewhat uneasy. First of all, no other pre-Gothic short vowel undergoes apocope without also undergoing syncope before a single final
consonant. Secondly, in all of Gothic, u-apocope is the only 'third syllable rule' (i.e. the only vocalic rule conditioned by presence of a preceding unstressed syllable). That the deletion of u is unusually limited, that the change requires an unusual rule, and that it still has exceptions which must be explained by analogical restoration--these facts suggest that the loss of u may not be a phonological process after all. Indeed it is considerably simpler to postulate that analogical forces account not for the restoration but for the loss of u. The model for this development may have arisen when the syncope/apocope of a and i created the equation 'accusative equals nominative minus -s' in the a- and i-stems. In the r- and n-stems, the nominative singular was simply -s. Accordingly, inherited accusative *-u may have been reformed to - года. The same change is reflected in the monosyllabic consonant stem baurgs, baurg (< *burge, *burgu) 'town' (see 3.1.7). In the u-stems, however, nominative -us, accusative -u called for no change. It therefore seems reasonable to propose that u underwent neither syncope nor apocope in pre-Gothic. Where u seems to have undergone apocope, this change is probably to be viewed as a morphological innovation.

In summary we may state that short i was lost in absolute finality or before a single final consonant while short u remained under all phonological conditions, being subject only to forces of paradigmatic generalization.
SECTION 2.6

The Gothic development of Germanic final *-oi/*-ai

Early Germanic *oi and *ai are probably to be distinguished just as *o and *a are to be kept separate. What is more, the two diphthongs probably merged to *ai at about the time *o and *a merged to *a. These assumptions, which I will not try to verify here, are based on the theoretical consideration that Germanic short diphthongs are clusters of two phonemes at the underlying level—see William C. Crossgrove, Vowel Quantity in Proto-Germanic, University of Texas Ph. D. dissertation, 1962, pp. 108-145.

There is general agreement that later-Germanic *ai is represented in Gothic stressed syllables and protected unstressed syllables by the digraph ai—probably a monophthong qualitatively distinct from the monophthong spelled e. Scholars are also agreed that Germanic *ai yields the same reflex in absolute finality of monosyllabic words—thus Greek toi equals Gothic bai (nominative plural masculine demonstrative pronoun). It is reasonable to suppose, and I will assume, that word stress accounts for this fact; compare, in this regard, the preservation of final *-a (→ 0) in the nominative singular feminine demonstrative pronoun, so.

The points just mentioned are the quiet backwaters of Germano/Gothic phonology. In contrast, once one leaves the mono-syllabic words and the haven of protected finality, one enters a storm of conflict and confusion. Every pre-Gothic morpheme purportedly

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containing *ai in unstressed absolute finality is matched by at least one derivation from a different phonemic shape (*-c, *-oï, or *-o). Conversely, and perversely, scholars who agree on morpheme structure disagree on rules; thus unstressed final *-ai becomes a everywhere, or only in third syllables, or never. One who seeks, conscientiously, to consider all the claims is therefore asked to solve a single equation with two independent variables—an impossible task. (That this is not a new complaint, see M. H. Jellinek, "Zur Lehre von den langen Endsilben," ZfdA 39 [1895], p. 142.)

Since decision here is a necessary prerequisite to diachronic description, I have sought to restrict the variables. Thus I reject Wilhelm Braune's claim that *-ai became -a only in third syllables (PBB 2 [1876], p. 163, cited in H. Paul, "Der Ablative im Germanischen," PBB 2 [1876], p. 339. Braune later retracted the proposal.). I do so for some of the reasons cited by Paul (loc. cit.); G. H. Mahlow, Die langen Vocale AEO in den europäischen Sprachen (Berlin, 1879), pp. 94-95; and J. Schmidt, "Die germanischen Präpositionen und das Auslautgesetz," ZVS 26 (1886), pp. 42ff. See, however, the counterarguments in M. H. Jellinek, Beiträge zur Erklärung der germanischen Flexion (Berlin, 1891), pp. 67-72.

I have also sought to restrict the morphological possibilities. I firmly believe that Gothic daga 'day' (o-stem dative singular) reflects the Germanic dative/locative ending, *-ai (probably merged with the nominal instrumental, *-o); but the derivation of the Gothic o-stem dative singular is so woefully confused that one
could use it to determine the fate of final *-ai only by arguing in circles. Instead, I have chosen to focus on two other morphemes: the Gothic passive endings in -ada, -aza; and the place adverbs in final -a (inna, uta, etc.). The former are almost universally compared with the Greek medio-passives in -sai, -tai; the latter with the o-stem locatives in *-oi.

In 1877, H. Paul—"Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4, p. 471—derived from forms in final *-ai such Germanic place adverbs as Gothic inna 'in', Old Norse inni, etc. Support for the derivation was assembled by J. Schmidt ('Die germanischen Präpositionen und das Auslautgesetz'), who tabulated (p. 42) such correspondences as Gothic uta 'outside', Old Norse uti, Old English ute, Old Saxon ute (uta M 388, 553), Old High German uze. With an eye toward explaining the o-stem dative singular, Schmidt noted:

"Hier zeigt sich eine ganz regelmässige entsprechung von got. -a, an. -i, welches keinen umlaut bewirkt, und westgerm. -e, welches im as. und ahd. nach -a hin schwankt. . . . Die genannten adverbia inna u.s.w. sind ruhe locative, also sind vulfa u.s.w. die vertreter von skr. vṛke, greich -oi." (p. 43). Since Schmidt assembled the data, his name is generally linked with this theory.

Schmidt's derivation was opposed by Herman Hirt in his article "Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen; zweiter Teil, die schleifende Betonung im Germanischen und die Auslautgesetze," (IF 1 [1892], pp. 195-219). In this work, the first detailed presentation of the now traditional circumflex theory, Hirt postulates an acute/circumflex distinction in *-oi.
based solely on his reconstruction of Indo-European accent from the
direct comparison of Greek and Lithuanian forms. On page 217 Hirt
claims that circumflex *-oi is reflected in the North-West Germanic
a-stem dative singular -e, but not in Gothic -a, which Hirt must
explain as an instrumental because circumflex *-oi is apparently
reflected as Gothic -ai in the third singular present optative
ending. The basis of Hirt's theory is now rejected— one cannot
reconstruct Indo-European accent through the direct comparison of
Greek and Lithuanian since their intonation systems have developed
independently. (See 2.2.2 above.) Furthermore, Hirt's difficulty
with the Gothic dative was a fata morgana since Mahlow had explain-
ed the optative without recourse to accent in 1879 (Die Langen
Vocale, p. 55). Nonetheless, Hirt perceived a difficulty and
Schmidt's hypothesis compounded it. Hirt wrote (p. 218):

Joh. Schmidt KZ. XXVII hat aber auf folgende Entsprechungen
aufmerksam gemacht: Got. uta, ahd. üze, ags. üte, an. ûti,
got. inna, iupa mit denselben Entsprechungen. Hierauf
gründet er die Vermutung, dass -ai im Got. zu -a geworden sei.
Aber unüberwindlich scheint mir diese Schwierigkeit [for Hirt's
Lok. [equals old instrumental] der o-Stämme neu beeinflusst
sein. Wir dürfen aber auch annehmen, dass in got. uta, inna,
iupa alte Lokative auf -e oder -o stecken (got. hwar aus
*hwe-r, gr. ἕνωκεν kōtω), dass die west- und nordgermanischen
Formen dagegen die durch -i erweiterten Lokative auf -oi
[circumflex] sind.
Hirt's remarks on the adverbs are a necessary consequence of his accent theory. But the accute/circumflex contrast in *-oi/*-ai is simply not well enough grounded to support an otherwise unnecessary separation of Gothic and North-West Germanic developments in these forms. Since Hirt admits a change of *-ai to -a, as also of *-e to -a, and since the preservation of -ai in Gothic may be explained without an appeal to accent, the supposed morphological split is simply arbitrary. It is much more likely that Schmidt's comparative chart reflects a single Germanic ending.

Hirt has raised a difficult issue, however, in suggesting that this ending might be equivalent to an instrumental in *-e (cf. Gothic pronominal *p̄a, hwē). Since unstressed *ai monophthongizes to œ in North-West Germanic, one might suppose that locative *-ai and instrumental *-e could never be sorted out here. I believe, however, that such a separation is in fact possible. In his Old English Grammar (London, 1959), A. Campbell notes, regarding the o-stem nouns: "In early texts, where the dat. sg. is still in -æ, forms in -ı are found, and while they are mainly (so far as can be determined) instrumental, the form was probably originally locative in function, and derived from Gmc. -ē, I-E -ei (cf. Gr. ἕικει) . . . This -ı causes neither harmonization of e . . . nor umlaut in the preceding syllable in extant forms, the vowel of the other cases having been extended through the paradigm." (p. 223) Campbell's explanation may be correct, but it is difficult for me to believe that original locatives in *-ei and *-oi could exist in the same paradigm in the same language. My skepticism is not
lessened by the fact that an o-stem locative in *-ei is otherwise unattested in Germanic. Instead, I would suggest that these early Old English instrumentals are exactly what they seem to be—that is, instrumentals reflecting the well-attested Germanic (pronominal) instrumental in *-e. Not only is the form supported phonologically and semantically, but a derivation from *-e, rather than *-i, immediately explains the lack of umlaut without the requirement of paradigmatic levelling. Note here, however, that one must consider the difference between absolute finality and protected finality as in the contrast between instrumental -i < *-e and third singular preterit indicative of weak verbs in -ae < *-e5. On final *-e > -i in West Germanic, compare N. van Wijk, "Germanisches," IF 22 (1907/08), pp. 264–265; Hermann Hirt, Handbuch des Urgermanischen, Teil II, Stammbildungs und Flexionslehre (Heidelberg, 1932), p. 36. On the Old English instrumental, compare Section 2.8 below.

If I am correct in the above explanation, then early Old English instrumental -i (< *-e) versus dative/locative -ae (< *-ai) enables us to claim that the forms did not merge after all—or at least not immediately. Since the adverbs of place show -ae, it follows that they reflect not an instrumental, but a locative. Since there is no reason to isolate the Gothic adverbs of place historically, it follows that they, too, most probably reflect an original locative. If so, then Germanic unstressed *ai in absolute finality becomes -a in the adverb as also in the passive.

An additional complexity in the derivation of ́uta, etc., was introduced by Hermann Collitz in his study, Die Behandlung des urspr. auslautenden ai im Gotischen, Althochdeutschen u. Altsäch-
Collitz cites forms from a variety of Indo-European languages to show that virtually any case other than the vocative could be used to derive place adverbs. He then correctly points out that Schmidt has merely assumed a derivation from the locative. The discussion above would seem to answer Collitz's objection, but it has not considered his own explanation. In his monograph, Collitz wants to show that the place adverbs, as also the o-stem dative, are actually true datives (that is, from *-ōi), not locatives (< *-ōi). Since he also believes that Germanic *-ōi becomes Gothic -ai (in the ā-stem dative), he is confronted by a problem in Gothic ūta (adverb) and daga (o-stem dative, 'day'). His solution is to set up *ō and *ōi as allomorphs of the dative conditioned phonetically by "Satzsandhi". He then claims that Gothic ūta and daga reflect the former variant, Old Norse ūti and degi the latter. Writing well before the phonemic principle had been established, Collitz was not aware of the difficulties inherent in his theory: for, if [*ō] and [*ōi] are phonetically conditioned variants of */ōi/, one must ask how these forms came to be phonemic. It is not possible to claim that North-West Germanic abandoned the rule, while Gothic generalized it, since Collitz maintains that both variants are reflected in both branches. In that there is no apparent solution to the phonemic problem, the theory would seem to be invalid.

One might modify Collitz's hypothesis by deriving Gothic gibai (ā-stem dative singular) from *gebōi (*-ō+ōi) and daga from...
*dogoi (*-o+oi), thus maintaining their status as true datives and explaining their different reflexes by length. This seems a pointless exercise, however, since one must then postulate a merger of *-oi and *-oi in Germanic. Thus compare

<table>
<thead>
<tr>
<th></th>
<th>Gmc.</th>
<th>Go.</th>
<th>NWGmc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>passive</td>
<td>*-ōai</td>
<td>-da</td>
<td>-te</td>
</tr>
<tr>
<td>dative</td>
<td>*-ōi</td>
<td>daga</td>
<td>dage</td>
</tr>
</tbody>
</table>

That the Germanic consonant stem 'dative' is historically a locative (*-i, not *-oi/ei) only emphasizes the supererogation of the Collitz account. As Prokosch has noted, all the Germanic [nominal] dative forms may be derived from Indo-European locatives (A Comparative Germanic Grammar [Philadelphia, 1939], p. 235).

It seems reasonable to conclude, therefore, that the Gothic place adverbs in -a probably do reflect an old o-stem locative in *-oi. They therefore also reflect a change of final unstressed *oi/ai to a in words of two syllables.


Recently, however, Thomas L. Markey--"Gothic imperatives in -au,"
SL 26 (1972), pp. 42-47—has proposed a new derivation which does not involve final Germanic *-ai. On page 45, Markey writes:

[For the passive] we posit the following development in the singular.

\[-\mathfrak{a}_2\mathfrak{a} \rightarrow -a \rightarrow -a \rightarrow -ado \rightarrow -ada\]
\[-t \rightarrow -t \rightarrow -aso \rightarrow -azo \rightarrow -aza\]
\[-o \rightarrow -a \rightarrow -ato \rightarrow -ado \rightarrow -ada\]

This reconstruction circumvents the problematic development of *-ai posed by the traditional derivation from -sai, -tai, pl. -ntai with Gothic -a = Gk -oi > -ai, Skt -ā. Given Goth ḍai = Gk toi, Lith tiė < *tie, OPr stai, Skt te, the Gothic mediopassive with -a was regarded as an exception. The formulation of a separate rule to account for polysyllabic forms and regularize development to -a is invalidated by blindai and not *blinda, cf. Krahe (1966: para. 128). Retention of *-o as -a in the mediopassive merely indicates recent reformation, not an anomaly; there is no evidence for the retention of original -a in absolute final position in late Pgmc, ... .

Markey's notion that the development of *-tai (or *-toi) etc. to -da is problematic seems to stem from the usual handbook view that the passive is the only example of *ai > a. Here the handbooks typically ignore adverbial uto, etc., which Schmidt derived from old locatives in *-oi—a derivation apparently accepted by Markey himself in 1970—"A note on Germanic directional and place adverbs," SL 24, p. 73. In fact, the derivation -da < *-toi
is not problematic at all and has been opposed, in recent times, only by Markey. (Compare Paul, PBB 4, 458—cited and rejected by Jellinek, Beiträge zur Erklärung der germanischen Flexion, p. 68, note 1.) The comparison with monosyllabic bai does not indicate exceptional development in unstressed *-öai, since that development is exactly paralleled for *-ö: thus compare monosyllabic só beside unstressed *-ö > -a (*gebo > giba, a-stem nominative singular). Neither does blindai invalidate the rule, since it is a rather simple reformation (*blinda > blindai) from bai (Compare Collitz, pp. 4-5). In contrast, Markey's proposed form has little to recommend it: it does no good to claim that the reformation is recent unless one can also explain why *-to/ *-da retained its final short vowel. I would note as well that Markey's derivation is directly at odds with North-West Germanic relic passives in -e, which clearly reflect Germanic forms in *-ai, or possibly *-ê (Old English hätte, Old Icelandic heite 'I am called').

As Markey notes, "there is no evidence for the retention of original -a in absolute final position in late PGmc." Since there is specifically no evidence offered for the retention of *-a in *-da, one must conclude that Gothic -ada reflects an earlier bimoric element in final position. North-West Germanic forms in -e indicate that this element was either *-ê or *-ai. The history of the passive as sketched by Markey and given in more detail by Jerzy Kurylowicz, The inflectional categories of Indo-European (Heidelberg, 1964), pp. 57-89, suggests that Indo-European *-ê would be highly anomalous here. One is led, therefore, ineluctably
to Germanic *-ai. I see no way around this conclusion and no reason to reject the claim that Germanic unstressed *ai in absolute finality ultimately became Gothic -a.

There is one final problem in the history of final *-ai, namely the course of its development to Gothic -a. A now ancient tradition holds that *-ai developed directly to -a by loss of final *-i. Thus R. Westphal notes: "Auch der diphthong ai kann, wo er ursprünglichen auslaut bildet, in den meisten fällen sein i nicht behalten, sondern muss zu a werden." ("Das Auslautgesetz des Gotischen." ZVS 2 [1853], p. 164.) However, an alternative theory—that *-ai first monophthongized to *-e—would appear to be more plausible since it is directly supported by Gothic hwammē beside hwamma (interrogative pronoun, dative singular). There have been attempts to derive hwammē from an instrumental in *-ē, but these result, in large part, from the belief that Gothic daga 'day' (o-stem dative) cannot reflect a locative in *-oi. Some of the reasons underlying this belief have been discussed above and shown to be artifacts of theories no longer accepted (see also Subsection 3.1.1 (a) locative, dative, and instrumental singular). Thus an instrumental derivation of hwammē is unnecessary. Furthermore, it is made highly unlikely by the preservation of instrumental hwe in the same declension as hwammē. I take it to be much more likely that hwammē, which functions as a dative/locative, is indeed a dative/locative from original *-oi (See 2.7, 3.2.2). I will therefore maintain that Germanic *-oi/*-ai in absolute finality first monophthongized in unstressed position, then shortened and lowered to
Gothic -a (compare 2.4).
SECTION 2.7

Germanic final *-ōi --the problem of the masculine dative singular

In 1892 Oskar Wiedemann made the following observation about the Germanic dative singular: "Wenden wir uns zunächst zu den o-stämmen, so haben wir bei ihnen, abgesehen vom gotischen, in allen germ. sprachen in den nomina eine andere endung als in den pronomina: aisl. arme, aber heim, ags. òome, aber òâem (òâm), as. dage (daga) aber thêmu (thamu), ahd. tage (taga), aber dêmu (dêmo); nur im gotischen haben nomina und pronomina die gleiche endung: daga, þamma." ("Der Dativus Singularis der germanischen Sprachen," ZVS 31 [1892], p. 482). Wiedemann misses his point only at the last; for, as Gothic þamma ~ þammuh beside hwamma ~ hwammêh make clear, Gothic also has the two masculine dative forms.

Not all the sets given by Wiedemann are to be directly compared. Thus Old Icelandic heim and Old English òâem--dative singular forms which agree with the dative plural in each language--are probably to be viewed as replacements modeled on the agreement of dative singular and plural in the adjective (see Richard Loewe, "Der germanische Pluraldativ," ZVS 48 [1918], pp. 76-77, and compare Section 2.1 above). That is, heim and òâem are probably not to be compared with Old High German dêmu. It is this last form, vis-à-vis the nominal dative tage, which is most interesting historically and which I believe is reflected in the Gothic contrast þammuh ~ hwammêh.
While he argues persuasively that all the nominal datives in -e reflect an Indo-European o-stem locative singular in *-oi (Germanic *-ai), Wiedemann believes that the Old High German - Old Saxon pronominal datives in -u reflect a true dative in Indo-European *-oi. On page 483 he repeats what was already an old idea in 1892: that Indo-European *-oi could lose its -i to merge with Germanic *-o. I believe that Wiedemann was essentially right in this, and that his account is the most direct and most plausible explanation of the two masculine datives.

The idea that Indo-European *-oi could yield Germanic final long *-o has been proposed, rejected, defended, and dismissed numerous times in the course of Germanic scholarship. Thus compare: Hermann Paul, "Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4 (1877), pp. 452-457, 459-461 (con); G. H. Mahlow, Die langen Vocale AEO in den europäischen Sprachen (Berlin, 1879), p. 53 (pro); H. Möller, "Zur Declination, germanisch AEO in den Endungen des Nomens und die Entstehung des o (a2)," PBB 7 (1880), p. 490 (pro); Gustav Burghauser, Die germanischen Endsilbenvocale ..., sonderabdruck aus dem XII. jahresberichte der deutschen staatsrealschule in Prag-Karolinenthal (Vienna, 1888), p. 16 (con); Hermann Collitz, Die Behandlung des urspr. auslautenden ai ..., Besonderer abdruck aus dem XVII. band der "Beiträge zur Kunde der indogermanischen Sprachen" (Göttingen, 1890), pp. 12-13 (pro); Victor Michels, review of Jellinek's, Beiträge zur Erklärung der germanischen Flexion in Anzeiger für indogermanische Sprach- und Altertumskunde I (1891), p. 31 (doubtful); Wilhelm Streitberg, Zur germanischen Sprachgeschichte.
One of the chief difficulties with this theory has always been the existence of -ai as the Gothic dative singular of a-stem nouns. So long as one derives this ending from Germanic *-oi, the change of *-oi to *-o must seem dubious at best. However, if one follows a qualitative theory of Germanic finals, it is then the case that the Gothic a-stem dative derives from Germanic *-ai — not *-oi. There is nothing, then, to prevent the claim that a Germanic o-stem dative in *-oi lost its final glide to become *-o. Not only does this theory explain the pronominal datives, but it may enable us to say why the Germanic o-stem nouns reflect an Indo-European locative singular but not a dative singular: with the shift of *-oi to *-o, the old dative morpheme may have merged with the nominal instrumental in *-o. The dative function was then taken over by the locative, while, in Old Icelandic and Old English, the o-stem instrumental dative in *-o was lost. (See, for a different explanation, Section
Unfortunately, the o-stem dative singular is our only clear example of Germanic *-oi (as opposed to *-ai) in unstressed absolute finality. We cannot, therefore, seek to confirm or deny the proposed change of *-oi to *-o by examining a parallel form. I believe, however, that the tage - demu contrast is sufficient reason to consider the change a plausible one. While tage may reflect a locative, there is no reason to speculate that demu is anything other than a dative. An ablative origin is ruled out by the preservation of the o-stem ablative in adverbial -ō. And it would be perverse indeed to suppose that demu is historically an instrumental of nominal origin when the original pronominal instrumental is preserved in diu (from *þē > *þi, renewed with the nominal instrumental, -u). I would note as well that the change of *Oi to *ō enables us to explain an otherwise troublesome difference in the following Old Icelandic forms (see further 2.8 coda):

\[
\begin{align*}
\text{a-stem noun nominative singular:} & \\
*\text{sago} & \rightarrow \text{sago} & \rightarrow \text{sagu} & \rightarrow \text{sog} \\
\text{o-stem adjective dative singular:} & \\
*\text{spakoī} & \rightarrow \text{spakoū} & \rightarrow \text{spakuū} & \rightarrow \text{spōku}
\end{align*}
\]

If Old High German and Old Saxon lead us to distinguish locative and dative in masculine forms, and to correlate this distinction with Germanic *-ai and *-ō (< *-oi), it is perhaps not unreasonable to use this same distinction in explaining the otherwise baffling difference between bammuh and hwamēnē in Gothic. Though many scholars have rather offhandedly equated bamma and
hwamma, and derived both endings from the -<e preserved in hwammêh, the encliticized forms bammuh and hwammeh make it unquestionably clear that Gothic speakers themselves made no such equation. While hwamma derives synchronically from /hwammê/, bammuh most probably reflects /pamma/ plus -uh. So far as I can tell, this difference is likely to be an old one in Gothic. I believe it is old enough, in fact, to be equated with the dative-locative distinction reflected in Old High German tage - demu.

Taking the above as a working hypothesis, there remains the problem of historical derivation. That is, given Germanic *-<e(i) beside *-ai and Gothic /-a/ beside /-ê/, which goes with which? I believe that Germanic *-<e(i) is most probably reflected in Gothic /-a/ (pamma), Germanic *-ai in Gothic /-ê/ (hwammeh). My reasons are as follows. First, Old High German leads us to associate *-ai with the nominal declension, *-<e(i) with the pronominal. In Gothic, both endings appear in the pronouns. It is important to note, however, that nominative hwas - hwa (< *hwam—see 3.2.2) are closer to the nominal pattern than nominative sa - bat(a). Forced to locate both datives in the pronominal series, one must find it a priori more likely that *-ai (the 'nominal' ending) belongs with hwas. Secondly, the reflex of Germanic *-<e(i) agrees with the reflex of Germanic final *-<e in Old High German and Old Saxon. The merger of *-<e(i) and *-ê may have been early, and it is therefore possible that the reflexes of *-<e(i) and *-ê, *-<a agree in Gothic as well. As kar'ist (< kara + ist) demonstrates, the reflex of Germanic final *-<a in Gothic is short -a (compare section 2.4). Short -a also appears in pamma (cf. bammuh), and it may therefore be reason-
able to extend the parallelism back to Germanic *bammo(i), *kara.

Finally, the opposite alignment (**bammal, **hwammo(i) is improbable in that it requires a change of *o(i) to *o to *e. The e of hwammēh is the so-called 'alternating e' (see section 2.4); it must have existed prior to the period of encliticization in pre-Gothic. Alternating e exists beside non-alternating e in synchronic Gothic. One source of non-alternating e is the change of nasalized o to e in the genitive plural. This change must have occurred after the period of encliticization (see 2.4). If alternating e in hwammēh is from *o (< *oι), then the two changes, *o → e and *o → e, must be completely unrelated in time since alternating and non-alternating e lie on either side of the period of encliticization. It is highly unlikely that so unusual a change would occur twice. Much more likely is the derivation of alternating e from older *ai (hwamme < *hwammai).

Old High German and Old Saxon lead us to see dative *-o(i) in both the demonstrative and the interrogative masculine and neuter pronouns. The adjectival endings, Old Icelandic spōkom 'quiet, wise', Old English hwatum 'active', also suggest a wide pronominal distribution for *-o(i), if they are indeed from *-am(m)o(i) (compare early Old High German adjectival -amu and see 2.1). If, on this evidence, we reconstruct for Germanic a general masculine and neuter pronominal dative singular in *-ammo(i), we are compelled to ask how this ending came to be replaced in the Gothic interrogative pronoun hwas, dative /hwamme/.

Certainty is hardly attainable in this instance, but I would suggest that we might actually reconstruct both locative *-ammai
and dative *-ammōi in pronouns and adjectives. For Gothic, at least, a key to the ascendancy of *-ai over *-o(i) in hwammēh (and perhaps also in the adjectives) is to be found in the nominative singular endings, masculine -s (hwas) neuter *-m (*hwam). These endings linked the interrogative pronoun (and the adjective) to the nominal paradigm--also masculine -s, neuter *-m. With the collapse of the nominal dative into the instrumental, the old dative *hwammo (*blindammo) was isolated vis-à-vis the nouns. Locative *hwammai (*blindammai) lined up with nominal locative *dagai in the role of dative. Instrumental hwe lined up functionally with nominal instrumental *dago. *Hwammo, I suspect, simply atrophied.

In contrast to the interrogative (and adjective), the demonstrative pronoun was not associated with the nominal inflection: contrast sa, *bat with *dagas, *wordam. Thus dative -ō remains in the demonstrative, but not in the interrogative (or adjective).

For the moment, the apparent loss of locative *-ammai in the Gothic demonstrative (and in Old High German) remains unexplained. One may well believe, however, that the locative case atrophied at an early date in the demonstrative pronouns, its non-attributive function having been taken over by the spatial (locative) adverb bar 'there' built from the same stem. The hwar 'where' did not similarly lead to a loss of *hwammai is perhaps best explained by the association of hwas, *hwam (and thus *hwammai) with the nominal inflection. (See further 3.2.2 nominative singular on the difference between demonstrative and interrogative.) It is also possible that only the dative (*-oi) was inherited in the Germanic pronouns,
the co-occurrence of dative and locative being limited originally to
the nouns, from which it spread to the interrogative (but not the
demonstrative) pronouns by reason of their association with the
nominal inflection. Lack of distinction between dative and loca-
tive in the pronoun might be in keeping with Kurylowicz's thesis
that "The dat. is genetically nothing else than an offshoot of the
locative used with personal nouns" (Inflectional Categories, p.
190) and that the two cases were one prior to this functional
split (p. 191). Here it is important not to be misled by case
labels; the significant point is distinction versus no distinction
between dative and locative.

If we postulate a Germanic *hwammai, *hwammoi in the inter-
rogative (and adjective) beside only *bammoi in the demonstrative,
then all the dialectal forms can be rather neatly explained.
In Gothic, *hwammai and *hwammoi followed the nominal inflection
and reduced to *hwammai. So also, perhaps, the adjective. In
North-West Germanic, all pronominal (and adjectival) datives were
standardized on the model of *bammoi.

To recapitulate: I believe that Germanic o-stem nouns display-
ed the three singular endings, locative *-ai, dative *-oi, instru-
mental *-o. In early pre-Gothic (or perhaps in Germanic times), *-oi
may have lost its final glide and merged phonemically with instru-
mental *-o. The dative ending *-oi (> *-o) existed in the demon-
strative and interrogative pronouns as well. In pre-Gothic, *-o(i)
was superseded by *-ai in the interrogative. This replacement :
created the difference still reflected in synchronic Gothic hwammeh
versus bammuh. A comparable distinction is reflected in the Old

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High German datives, nominal *tage*, pronominal *demu*.
Germanic final *-ai --the problem of the feminine dative singular

As pointed out by George S. Lane, "The reason that PIE -ai in the dat. sg. fem. was preserved as a diphthong in PGmc. was that it was originally long, not that it carried an original circumflex intonation. . . . The preservation of the IE long final diphthong as a Gothic (long) monophthong ãe [orthographic ai --AWJ] is to be contrasted with the development of the short final diphthong -ai in the medio-passive endings sg. 1 and 3 -da, 2 -za, pl. -nda < IE *-tai, *-sai, *-ntai." --"Bimoric and trimoric vowels and diphthongs: laws of Germanic finals again," JEGP 62 (1963), p. 168. That is, so long as one looks only at Indo-European and Gothic, matters could hardly be simpler: *-ai becomes orthographic -a, *-ãi becomes orthographic ai. Matters are not quite this simple, however, in the other Germanic languages, and attempts to solve problems there have implications for Gothic as well.

The nature of the difficulty was explained by Hermann Paul in 1877, "Die Vocale der flexions- und ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4, pp. 315-475:

Nur ein -u gibt es, dem in got. weder -u noch -ã gegenüber steht, im dat. sg. fem. der ã-stämme und der adjectiva und pronomina: ahd. gebu (-o), blinteru, deru; alts. entsprechend; altn. gjöf(u), aber blindri, beirri; ags. dagegen gife, blindre,
baere. Im got. entspricht gibai, blindai, bizai. Dass aus ursprünglichem -ai niemals etwas anderes entstehen kann als westgerm. -e, altn. -i is von Braune ausser zweifel gestellt. Dass anderseits westgerm. altn. -u, soweit es nicht ursprünglich ist, stets auf ein verkürztes a (o) zurückgeht, welches im got. als -a erscheint, ist aus den oben angeführten vergleichen klar. Die directe entstehung eines u aus ai wäre auch lautphysiologisch nicht denkbar. Es kann nur noch in frage gezogen werden, ob die doppelformen -ai und *-a (-o, -u) sich dadurch auf dieselbe grundform zurückführen lassen, dass man eine sehr frühzeitige verschiedenheit in der behandlung des auslauts zwischen dem got. einerseits und dem altn. und westgerm. anderseits annimmt. Aber abgesehen davon, dass wir auf unlösliche schwierigkeiten stossen würden, wenn wir versucher wollten auf diese weise irgend ein gesetz zu finden, so enthebt uns das altn. jedes zweifels hierüber. Hier haben wir die doppelformen neben einander; denn heirri, blindri entsprechen in bezug auf die endungen genau den got. bizai und blindai, gjöf(u) dagegen dem ahd. gebu. Da nun nicht in ein und demselben dialecte bei ein und derselben form eine verschiedenbe behandlung des auslauts stattgehabt haben kann, so ist damit so sicher wie möglich erwiesen, dass die doppelformen zwei von hause aus verschiedene bildungen, d.h. zwei verschiedene casus . . . repräsentieren, die, wie eben das altn. zeigt, ursprünglich wol überall neben einander bestanden haben müssen, bis die eine hier, die andere dort verloren ging. [pp. 452-453. Paul goes on to claim that the -u forms are from an ablative in
A distinction based on quantity was offered by G. H. Mahlow in Die langen Vocale AEO in den europäischen Sprachen (Berlin, 1879), p. 53. According to Mahlow, final -i was lost after a trimoric vowel (e.g. dative *-a + ai), but retained after a bimoric vowel (e.g. locative *-a + i). The explanation was criticized and properly rejected by M. H. Jellinek in Beiträge zur Erklärung der germanischen Flexion (Berlin, 1891), p. 5. Exactly the opposite claim was put forth by Oskar Wiedemann in "Der Dativus Singularis der germanischen Sprachen," ZVS 31 (1892), p. 484. That is, according to Wiedemann, -i is lost after a bimoric vowel but retained after a trimoric. This account has no more to recommend it than has Mahlow's.

A modernization of the kind of quantitative theory offered by Mahlow and Wiedemann is the following (to be rejected below). The objections to it apply against their theories as well.

In section 2.7 it was argued that Germanic *-oi lost its final glide to merge with *o in pre-Gothic and pre-Old High German times (if not in late Germanic). Gothic a-stem dative -ai (not -a) indicates that Germanic *-ai did not undergo the same development as *-oi --or at least not in pre-Gothic. But one might wish to speculate that, in North-West Germanic, *-ai did lose its final glide before the merger of *a and *o in absolute finality, and that it thus merged with final *o to yield -u. Having done this, one might then see in the adjectives and pronouns an old locative in *-ai (< *-eh₂i with loss of the intervocalic laryngeal; dative, however, from *-eh₂ei). Compare Charles-James N. Bailey, Inflectional Pattern of

This is not a preferred solution, however, since one must also ask why the locative should be lost in the nouns, the dative in the adjectives and pronouns. Presumably, whatever factors led to the choice of one case in the one declension would lead to the choice of the same case in the others. To claim otherwise is, at this point, to be arbitrary, as were Mahlow and Wiedemann. Furthermore, the existence of an a-stem locative in *-ai is quite hypothetical. Certainly the form with short a would be paradigmatically irregular after the loss of laryngeals, and it is a fact that other Indo-European languages have standardized the stem to -a-. In Germanic, under the terms of a non-quantitative theory which disallows trimoric vowels, such standardization would merge locative and dative in the a-stems: **ai → *ai; **aei → *ai.

The above considerations make it appear that the -u/-e split is not to be explained by postulating dative *-ai/ locative *-ai. Most probably, the North-West Germanic -e- forms represent the shortening and subsequent monophthongization of old long *-ai, a unified dative-locative ending. I am inclined to believe that this ending existed originally in all three declensions—nouns, adjectives, and pronouns—as shown in Gothic (apparently, but see below) and in other Indo-European languages. North-West Germanic
-u (< *-ô) in the nouns is probably a replacement.

In my opinion, Paul was correct in his observation that the Old Icelandic forms rule out divergent phonological developments of a single proto-form. Rather, as he noted, they clearly represent two distinct formations. It does not follow, however, that these formations were distinct a-stem case forms attributable to Indo-European. Equally possible a priori is the reformation or renewal of an old a-stem form within (North-West) Germanic. Apparently this renewal occurred after the linguistic separation of Gothic, which seems to agree with other Indo-European languages in displaying a single case form in the a-stem nouns, adjectives, and pronouns (however, see below).

From a historical point of view, the aberrant form is the one in -u, presumably from *-ô.' 1 Old English shows e for the feminine dative, presumably a reflex of the shortening of *-ai, and Old Icelandic agrees in the adjective and pronoun. Gothic, of course, is in harmony, and there is no difficulty in deriving this dative from Indo-European. Considering that there is a close relationship between the a-stem nouns, adjectives, and pronouns, it is quite easy to view the Old High German pattern (-u in all three declensions) as an extension or 'regularization' of the Old Icelandic pattern (-u only in nouns, -e elsewhere). Rather than isolate Old English within North-West Germanic, one could view its pattern (-e in all three declensions) as the opposite leveling from older -u, -e, -e. Conversely, it is very difficult to see in the Icelandic declensions a reduction of the Old High German pattern (-u, -u, -u to -u, -e, -e) or of the Old English (-e, -e, -e to -u, -e, -e). If the two endings
go back to (North-West) Germanic, as Paul believes, then it is
most likely that the -u form originally appeared only in the noun,
while the -e forms originally appeared only in the adjective and
pronoun (compare Wiedemann 1892, p. 484). Our task now is to
explain how the nominal ending could have gone astray.

I believe that a key to the development of an *-o(i) dative in
the feminine nouns (but not in the pronouns) may be partially
visible in the nominal paradigms given below in Stage I of the
table.

<table>
<thead>
<tr>
<th>Stage I fem.</th>
<th>Stage II fem.</th>
<th>Stage III fem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N a az</td>
<td>L o-i ai</td>
<td>D-L o-i ai</td>
</tr>
<tr>
<td>A a-i ai</td>
<td>D o-i o-i</td>
<td></td>
</tr>
<tr>
<td>G o-i o-i</td>
<td>I o o</td>
<td></td>
</tr>
<tr>
<td>L a-i o-i</td>
<td>D-L o-i o-i</td>
<td></td>
</tr>
</tbody>
</table>

Development of an *-o(i) dative in the feminines

Note that, in both the feminine and masculine declensions, the dative
ending can be analyzed as an extension of the instrumental by *-i.
That is, in the nouns, the dative may be viewed as if it were
morphologically motivated by the instrumental. In the pronouns, how­
ever, that is not possible: (masculine) dative and instrumental have
different stems (bammoi, be) and the instrumental is e, not o. Thus
a morphological connection between the instrumental and dative was
perhaps possible only in the o- and a-stem nominal declensions.
It is possible that, at an early period in Germanic, unstressed *o and *a merged in absolute finality (cf. Section 2.2). That is, the feminine instrumental, *-a, became *-o. If the nominal dative were morphologically motivated by the instrumental, the *o which developed regularly in the instrumental might carry over into the feminine dative-locative (Stage II of the table). Thus the old feminine dative-locative in *-ai would be replaced by *-oi. This would be a morphological, not a phonological, development; *-ai would remain in the feminine pronoun where the dative-instrumental dependency did not exist. (The opposite theory—that feminine instrumental *-o was modeled on an inherited dative in *-oi—was proposed by Hermann Hirt, "Zu den germanischen Auslautgesetzen," IF 6 [1896], p. 77, note 1.)

The theory just outlined suggests another explanation for the loss of the masculine dative singular (compare Section 2.7). Dative and locative were closely related cases in Indo-European, and, in pre-Germanic at least, they were probably not distinguished in the feminine a-stems. At the same time, however, the dative-locative complex was distinguished for gender (see Stage I of the table). When the feminine dative-locative in *-ai was replaced by *-oi, this effaced the gender distinction in the dative proper. Perhaps as a result, the masculine dative proper was suppressed and its function was shifted to the locative proper. In this way, gender distinction would have been maintained: feminine dative-locative *-oi versus masculine dative-locative *-ai (Stage III of the table).

This maintenance of gender distinction (if it occurred) was effected through materials available within the o- and a-stem
paradigms. It was, in a sense, a heightening of distinctions already present. No materials were available internally to contrast the masculine and feminine instrumentals, which therefore remained homophonous. It is possible, however, that the pronominal instrumental in *e was introduced into the masculine-neuter nouns (and adjectives) in pre-Old English for just this purpose of gender distinction.

Gothic shows no distinction between the nominal and pronominal feminine dative singular (gibai, bizai). At the same time, Gothic does show a distinction between the Germanic diphthongs *-oi and *-ai (bamma versus bizai). For these reasons, we might postulate that Gothic has replaced an earlier feminine nominal dative in *-oi by *-ai (as did Old English). The source for this replacement would be found in the feminine pronominal dative, *-ai. It might have been furthered by the short vowel - long vowel distinction in a- and a-stems:

<table>
<thead>
<tr>
<th>Case</th>
<th>Form 1</th>
<th>Form 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>acc.</td>
<td>am</td>
<td>òam</td>
</tr>
<tr>
<td>gen.</td>
<td>asa</td>
<td>òz</td>
</tr>
<tr>
<td>dat.-loc.</td>
<td>ai</td>
<td>òi → òai</td>
</tr>
</tbody>
</table>

Apparently this replacement, or restoration, of nominal dative *-ai is an independent Gothic development separating that language from North-West Germanic. Old Icelandic seems to continue the earlier state. As argued above, Old English and Old High German have regularized the feminine dative in opposite directions. If it could be shown, however, that the merger of *a and *o in absolute finality occurred independently in Gothic and North-West Germanic, then one
could limit the replacement of nominal *-ai by *-oi to North-West Germanic. Gothic then would reflect the Germanic state. At the moment, I see no way to date the merger of final *a and *o to dialectal times, and I therefore simply assume that it occurred in Germanic times.

It remains to be shown why Gothic does not reflect a feminine instrumental singular in -a (< *-o). In my opinion, the loss of this ending may be parallel to the loss of the old o^stem dative singular in Germanic. Thus consider the following forms:

<table>
<thead>
<tr>
<th>pre-Gothic</th>
<th>expected Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>fem.</td>
<td>masc.</td>
</tr>
<tr>
<td>dat.-loc.</td>
<td>aí</td>
</tr>
<tr>
<td>inst.</td>
<td>o</td>
</tr>
</tbody>
</table>

The merger of final *-ai and *-o in Gothic collapsed the locative-instrumental to a single ending in the masculines. This ending was homophonous with the feminine instrumental. As a consequence, the feminine instrumental was suppressed, and the locative-instrumental complex was contrasted as feminine -ai, masculine -a.

One might ask, of course, why these developments should occur rather than, e.g. a reformation of the masculine locative to *-ai. Unfortunately, no definitive answer to this question is possible. Apparently, however, the masculine-feminine distinction was more important than the locative-instrumental contrast. It would be an interesting and valuable study to reconstruct the hierarchy of distinctions in Germanic. Such a task, however, is beyond the scope of the present investigation.
CODA: The á-stem dative in Old Icelandic.

It was noted above in Section 2.7 that Old Icelandic reflects a distinction between old *-ō and *-ōi in the following forms:

- á-stem noun nominative singular:
  *sago → sago → sagu → sqg

- o-stem adjective dative singular:
  *spakōi → spako → spaku → spoku

This distinction, plus the existence of dative *-ōi beside instrumental *-ō in the á-stem nouns, may explain the troublesome variability of the Old Icelandic á-stem dative singular. Forms both with and without final -u are attested, and while these seem to be associated with particular stem classes (thus -u with nouns in -ing-), it is likely that all á-stems originally had both endings. We might speculate that, for some reason, the connection between short *-u and the instrumental function was loosened—perhaps because pronominal *-e came to serve as the instrumental as in Old English, or perhaps because the burden of expressing instrumental constructions was being assumed by the prepositions. At any rate, the qualitative identity of *-u and *-ū may have led to a competition between the endings as dative-locative markers. (Note also that the Old English instrumental in -i occasionally expresses the sense of a locative—see A. Campbell, Old English Grammar [London, 1959], pp. 224, 235, 262. Compare Wilhelm Braune and Walther Mitzka, Althochdeutsche, Grammatik, 12th ed. [Tübingen, 1967], p. 201, on the locative use of the Old High German i-stem instrumental.) One may perhaps be forgiven the additional speculation that this competition between *-u and *-ū was resolved by
dividing the endings among the several sub-classes of a-stem nouns, though the particulars of this division remain undefined.

The Old Icelandic developments raise an interesting question which ought now to be addressed, though it cannot be answered here. Thus the sop - spoku contrast indicates that the shortening of *-ō preceded the change of *-oi to *-o in pre-North Germanic. Yet the identity of Gothic kar'ist (< *kara + ist) and bammuh (< *bammoi + uh) indicates that the shortening of *-o/*-a probably followed the change of *-oi to *-o in pre-Gothic. This contradiction suggests that the two rules (o → o and oi → o) were common-Germanic, not proto-Germanic, rules, i.e. rules whose effects are shared by the dialects, though not necessarily inherited by them. Further discussion of this problem is properly the responsibility of a comparative Germanic grammar. For our purposes here, it is sufficient to establish that both rules are probably reflected in Gothic and to determine that the Gothic developments indicate a given order of application. Broader issues must simply be deferred until the internal evidence of Gothic (and of each of the other dialects) has been sifted through and re-evaluated.

In summary: I believe we are justified in maintaining, with Lane, that the Gothic datives in -ai do reflect the shortening (and probable monophthongization) of older *-ai. This development is to be contrasted with the treatment of older *-ōi and *-ai, both of which reduce to Gothic -a. I believe it has also been shown that the North-West Germanic developments do not counter these claims, and indeed that North-West Germanic supports the distinction of *-ōi.

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and *-ä₁ in Germanic.
NOTES

It does little good merely to speculate that this ending reflects an *a*-stem instrumental singular in *-a*, since one must also explain why such a form ousted the dative in the nouns, but left the adjectives and pronouns unscathed. The simple instrumental explanation was offered by Francis Asbury Wood, "Morphological Notes," SP 20 (1923), pp. 99-100. Wood was not alone.
SECTION 2.9

Sievers' Law and the Gothic vowel w

One problem still under debate in the diachronic phonology of Gothic is the value of the Gothic letter usually transliterated as w.¹ The written form of this Gothic symbol is clearly based on that of the Greek letter upsilon, and, in loanwords from Greek, the Gothic character is used to represent a syllabic sound which corresponds both to upsilon (= [ũ]) and to unstressed oi (= [ũ:]) in the source language. In most native words, however, Gothic w represents a non-syllabic segment which corresponds to the Germanic phoneme */w/*. The description of w as a character representing both a syllabic segment in borrowed words and a non-syllabic segment in native words is further complicated by the possibility that w represents a distinctly native syllabic in such words as waurstw 'deed' J 6.29, gaidw 'lack' Ph 2.30, and biwadw 'servitude' G 4.24.²

In addition, some scholars have maintained that native w is syllabic in such words as manwjan 'to prepare' J 14.2, ufar-skadwjands 'over-shadowing' Me 9.7, and bandwjands 'beckoning' L 1.22.³

In native words, the appearance of w between consonants or between consonant and pause is quite unexpected, for, historically, Germanic */w/* apparently became u in just these positions. Thus the word for shadow is declined as a wo-stem in most Germanic dialects, and the Germanic forms can be safely reconstructed as nominative singular *skadwaz, accusative *skadwam. In Gothic, however, the
word for shadow has shifted to the u-stem declension, though nominative singular skadus, accusative *skadu appear to be the regular reflexes of Germanic *skadwaz, *skadwam through the intermediate stages *skadwz, *skadw. Indeed it is probable that the regular development of skadus, *skadu provided a basis for the shift in stem-class by creating forms comparable to such u-stem inflections as sunus, sunu 'son'.

It is the seeming incongruity of such words as skadus 'shadow' and waurstw 'deed' which raises serious questions about our understanding of Gothic phonology and orthography. For example, if final w is non-syllabic in waurstw, why has it failed to vocalize as it apparently did in skadus? On the other hand, if historical w is indeed syllabic in waurstw, as in skadus, why is w not spelled u in each instance? During the past eighty-five years, these and other questions posed by Gothic w have called forth various answers. Unfortunately, none of these is completely satisfying today.

2.9.1 Perhaps the most simplistic view of the problem would attribute the difference between skadus and waurstw to phonemic spelling. This is essentially the position taken by Eduard Prokosch in A comparative Germanic grammar (Philadelphia, 1939), p. 135. Prokosch felt that the preservation of w in words like Gothic hlaiw 'grave' was "probably [due to] analogy after the oblique cases."

He further speculated that "in Go. waurstw 'work' gaidw 'lack', biwadw 'servitude', w may have been merely orthographical." William H. Bennett—"The monophthongization of Gothic ai, au," (Language, 25 [1949], p. 19)—understood Prokosch to mean that w was "a levelled orthographic symbol with no phonetic value," a view which Bennett
criticized as follows: "If w in such forms was no longer pronounced but was reintroduced as a spelling form oblique case forms, the question immediately arises why this w is not occasionally omitted, with *ais and aiws interchanging like OE cneo and cneow. Inasmuch as the scribes regularly retained the w, it appears safer to suppose that the spelling had some value." Bennett is probably correct in supposing that Gothic w had some phonetic value wherever it occurred, and it is unfortunate that Prokosch equated the Gothic treatment of w with the Old English practice (p. 135). But Prokosch's remarks appear in a paragraph headed "w > u", and one may well interpret them to mean that w in both hlaiw 'grave' and waurstw 'deed' is a phonemic spelling for expected u (not for zero).

As regards the hlaiw-class, this interpretation is almost certainly incorrect. Work since the time of Prokosch has indicated that w after a tautosyllabic vowel probably represents the off-glide of a diphthong. That is, w here spells a non syllabic allophone.

Matters are more complex in the waurstw-class, but here, too, an explanation based on phonemic spelling is probably to be rejected. Thus, when a phoneme has two allophones, each may be assigned a distinct graph (phonetic spelling). On the other hand, if the allophonic distinction goes unnoticed, the two allophones may be spelled alike. This I will call strict phonemic spelling. Though it is widely held that Gothic spelling is essentially phonemic, and though I have no quarrel with this thesis, yet I would note that, under certain well defined conditions, the phonemic spelling principle has partially broken down in Gothic. Perhaps the best known of these conditions obtains when two phonemes share overlapping
allophones. In this case, the allophones of one of the two phonemes are occasionally distinguished in what appears to be phonetic spelling. Thus the Gothic phoneme /b/ has the allophones: [f] in absolute finality or before final -s, [b] elsewhere. But the [f] allophone of phonemic /b/ is identical to the [f] allophone of phonemic /f/. That is, phonemic /b/ and /f/ overlap in allophonic [f]. As a result of this overlap, allophonic [f] from /b/ is spelled sometimes with b, sometimes with f, as in the accusative singular of the word for 'bread': hlaib J 13.30, hlaif J 13.26. This spelling variation, which I will call loose phonemic spelling, is directly attributable to allophonic overlap. Conversely, given a large enough corpus, allophonic overlap ought to be reflected in loose phonemic spelling.

According to Prokosch's theory, as reinterpreted above, the Gothic phoneme /w/ had the allophones [w] and [u]. But Gothic also had a phonemic /u/ (allophonic [u]), as well as the graphs u and w. That is, if Prokosch were right about the allophones of /w/, phonemic /w/ and /u/ would overlap in allophonic [u]. Consequently, one would expect some variation in the spelling of allophonic [u] from phonemic /w/. Here, however, the objection raised by Bennett applies anew: waurstw-class words are never spelled with u, even though the Gothic alphabet provides for the distinction of [u] and [w]. This fact strongly suggests that w is not a loose phonemic spelling for [u].

It is possible, of course, that the [u] allophone of /w/ was somehow distinct from the [u] allophone of /u/ and that there was no allophonic overlap of /u/ and /w/. If such were the case, then one
could argue that the distinction between the allophones [u] and [w] of phonemic /w/ had simply gone unnoticed and that these allophones were spelled alike in strict phonemic spelling. Prokosch, however, makes no such claim, and I believe we must reject his theory as he states it.

A second hypothesis maintains that Gothic w represents always and only a non-syllabic segment (possibly a spirant) in native words. This view seems to have originated with M. H. Jellinek, who proposed it primarily to account for w in the hlaiw-waurstw-class. In his article, "Gotisch w," (ZfdA, 36 [1892], pp. 274, 276), Jellinek states that w in the nominative and accusative singular of these words can only have come from the remaining oblique cases. Since, however, a true semivowel must automatically vocalize before consonant or pause, w must have become "ein u-haltiger labialer spirant" (p. 276) before the leveling occurred. Jellinek repeats this argument in his note, "Zur Aussprache des Gotischen" ZfdA, 41 (1897), 369-372. He thought he had found confirmation of his theory in Wulfila's choice of Greek upsilon to represent Gothic /w/. Upsilon, he believed, represented a spirant when it occurred after a vowel in Greek words.

Jellinek's hypothesis has been widely accepted, though serious counterarguments have appeared in the present century. In his article, "Postconsonantal *w in the two Gothic types skadus 'shadow' and triggus 'faithful'," (Germanic Review, 32 [1957], p. 314), A. M. Sturtevant, for example, made the following critical observation: 'If the w acquired a spirantal quality, as Jellinek assumes, this must have been the result of a phonetic process. Since he gives no
reason for this result, his assumption represents a mere make­shift (circuitous reasoning) in order to account for the retention of the *w." [the emphasis is in the original]. Sturtevant him­self thought that w represented always the non-syllabic semivowel [w]. He attributed the retention of w in waurstw-class words to the presence of internal juncture, which, he assumed, occurred after stops but not after spirants in Gothic. I cannot see, however, that this assumption is any better grounded than Jellinek's.

In his rejection of Jellinek's theory, Sturtevant was preceded by Bennett, who wrote ("Monophthongization," p. 18):

The w-spelling of Greek words like Pawlus can be explained by assuming that the second element of Greek au had already become a fricative, as in modern Greek, but this explanation will hardly serve to account for the spelling of kawtjo, in which aw unmistakably transcribes Latin au. paireh kawtjo occurs four times in the Gothic signatures of the Ravenna­Napels document, which was written about 551, and per cautione appears five times in the Latin signatures. Whether or not the second element of Gk. au had become fricative, there ap­pears to be no reason for supposing that Latin au had under­gone the same development.

Following Bennett's lead, Oscar F. Jones examined the Greek and Latin transcriptional evidence with some care in his article, "Nonsyllabic allophones of Gothic /w/," Language, 36 (1960), 508­515. He concluded: "... there is no justification of any sort for supposing that Gothic w designated a spirant. The spirant
hypothesis, together with the explanations that have been based upon it, should be rejected." (p. 512).

In his own study of the problem, Bennett ("Monophthongization," pp. 20-21) had noted yet a third difficulty with the spirant hypothesis: if Gothic w represented only a non-syllabic in native words, what would a naive Goth have made of such a word as Lwstrws 'Lystra' T 3.11, which apparently contains no syllabic segments at all? To be sure, a bilingual Goth might have used a Greek pronunciation for this Greek word, but one can hardly suppose that Wulfila translated the Bible for the benefit of bilingual Goths. The consistent w-spellings of words like Lwstrws suggest, then, that Gothic w probably represented both a non-syllabic segment and a syllabic segment in native words. It seems likely that the native syllabic was merely substituted for Greek [ü] in borrowed words.7

The theory that Gothic w in native words sometimes represents a syllabic segment dates back at least as far as Joseph Wright's Grammar of the Gothic Language (1st ed. 1910; 2nd ed. London, 1954). Those who hold this view have, however, not always agreed upon the phonetic value, the origin, or even the distribution of native syllabic w. Wright himself, for example, held that w was "probably a kind of reduced u-sound, the exact quality of which cannot be determined." (p. 12). He read syllabic w in snaiws 'snow', waurstw 'work', and ufarskadwjan 'to overshadow'; but he did not attempt to explain how syllabic w came to be distinct from u.

William H. Bennett ("Monophthongization," p. 20) felt that there was "some reason for believing that the monoglot speaker of Gothic
might pronounce w as a homorganic glide and vowel, which would alternate according to their phonetic environment." He did not, however, specify which pronunciation applied in which environment, and I am furthermore uncertain as to what value Bennett assigned to vocalic w in 1949.

In his article "Gothic ai and au again," (Language, 34 [1958], p. 363), Eric P. Hamp, apparently following Bennett, assigned to syllabic w the value [u]. In this, syllabic w contrasted with [U], which was represented by the graph u. Hamp believed that syllabic w entered the Gothic vowel system with the assimilation of Biblical (i.e. Greek) loanwords. Bennett ("Phonemic status," p. 429) also identified w as [u], u as [U]. He read syllabic w in Greek borrowings, in waurstw-class words, and in manwjan-class words, but not (contrast Wright) in words like snaiws 'snow'. As regards the origin of syllabic w, Bennett ("Phonemic status," pp. 428-429) felt that Gothic u might have developed a relatively open articulation which brought it into contrast with the relatively tense articulation of a semivowel in its syllabic mode. Oscar F. Jones ("Non-syllabic allophones," pp. 509 f., 512 f.) accepted Bennett's description of both the value and the distribution of syllabic w in native Gothic words.

Bennett, Hamp, and Jones were developing, along with James W. Marchand, a theory that phonemic quantity in the pre-Gothic vowel system had been replaced by a qualitative (tense/lax) distinction in Wulfila's dialect. Their proposed revision of Gothic phonology had led them to an asymmetrical vowel system in which front [i] and [I] were matched only by back [U]. Into this gap in the high back
vowels, syllabic w as [u] seemed to fit naturally. This theory has been challenged recently, however, and its implications for syllabic w have been specifically questioned by Theo Vennemann in his article, "The phonology of Gothic vowels" (Language, 47 [1971], 90-132). Vennemann presents the claims of the Bennett-Hamp-Jones hypothesis in the form of a table which I repeat here as Table One. He writes: "It is somewhat less than credible that [these] transcriptions should have been carried out in the Gothic Bible with unfailing consistency" (p. 97).

<table>
<thead>
<tr>
<th>Greek</th>
<th>Graph</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ü</td>
<td>w</td>
<td>u</td>
</tr>
<tr>
<td>u</td>
<td>u</td>
<td>U</td>
</tr>
</tbody>
</table>

Table One
(after Vennemann)

Whether or not one follows Vennemann in reaffirming phonemic quantity in Gothic, one can hardly deny that the equation w = [u] is indeed "somewhat less than credible". I would note, too, that the Bennett-Hamp-Jones hypothesis does not really account for the origin of syllabic w in native words. If Gothic w, whatever its syllabic value, has indeed been substituted for Greek [ü] in borrowed words, then syllabic w must have existed in native words prior to the substitution. That is, syllabic w cannot have entered the Gothic vowel system with the assimilation of Greek loans as Hamp supposed ("Gothic ai and au again," p. 363). Hamp's suggestion also fails to account for the limitation of syllabic w to unstressed syllables in native words, since no such restriction applies in borrowed words.
As regards Bennett's proposal: it is difficult to see how *skadu 'shadow' and waurstw 'work' could have become differentiated by the laxing of pre-Gothic *u as Bennett suggested ("Phonemic status," pp. 428-429). It seems reasonable to suppose that the loss of final short vowels would have created *skadw (> *skadu) and *waurstw (> *waurstu) simultaneously.

It appears, then, that none of the available theories accounts fully for the distribution of orthographic w in our Gothic texts. Even so, one can safely draw from these theories a number of inferences which ought to guide additional study. Thus, as Bennett, Hamp, and Jones have shown, orthographic w probably represents both a syllabic segment and a non-syllabic segment in native Gothic words. In all likelihood, these two segments are allophones of phonemic /w/ and the syllabic allophone has been substituted for Greek [ü] in borrowed words. As to the value of syllabic w, it is probably not [u] and, since syllabic w seems to have originated in native words, it is unlikely to be [ü]. In distribution, native syllabic w is limited to words of the waurstw-class and, perhaps, those of the manwjan-class as well. There is as yet no explanation for this limited distribution of syllabic w in native words, nor any satisfactory account of its origin. It seems likely, however, that a clue to the origin of syllabic w might well be found in the facts of its native distribution. In turn, knowledge of the origin of syllabic w might suggest a better interpretation of its phonetic value. Apparently, then, if a solution is to be found, it must be sought in the manwjan- and waurstw-classes. In what follows, I consider each of these classes in turn to show that the manwjan-
class can be ignored and that the \textit{waurstw}-class can provide some highly suggestive evidence which has heretofore been left out of account.

2.9.2 In his \textit{Handbuch des Gotischen}, 3rd ed. (Munich, 1968), p. 109, Wolfgang Krause has claimed that words of the \textit{manwjan}-class, in which \textit{w} occurs between a non-syllabic and \textit{j}, are probably to be read as [\textit{manwjan}] and so forth. If he is right, then \textit{manwjan}-class words do not contain syllabic \textit{w}, for here, as elsewhere, \textit{w} is non-syllabic before a following vowel.

Krause's position can be defended on historical grounds by an appeal to Sievers' Law, according to which the proto-Germanic phoneme */j/ displayed the three allophones *[i], *[j], and *[ij]. After a consonant and before a vowel, the last two allophones alternated according to the length of the preceding syllable, with *[ij] occurring after a long syllable (VC or VCC), while *[j] occurred after a short (VC). The effects of this Germanic alternation are still visible in the second and third persons singular, present indicative, of the weak \textit{jan}-verbs in Gothic. Thus \textit{matjib} 'he eats' (J 6.54), with a short stem-syllable, contrasts with \textit{sokeib} 'he seeks' (J 7.4) (< *\textit{sokijib}) in which the stem syllable is long. Most of the \textit{manwjan}-class words are also weak \textit{jan}-verbs, and it is interesting to note that their inflected forms follow the pattern of the long-stem verbs like \textit{sokeib}: thus \textit{ufarskadweid} (not -\textit{jid}) 'it will overshadow' L 1.35 and \textit{gamanweib} (not *-\textit{jib}) 'he will prepare' M 11.10, Mc 1.2. In both forms just cited, the stem vowel is short. Accordingly, for the stem \textit{syllable} to have been long
(i.e. VCC), *w must have been non-syllabic at the time the alternation /j/ arose. Krause's proposal thus explains, at least historically, the fact that, when Gothic w occurs between non-syllabics (other than C____s#), the second "non-syllabic" is always and only j.

Krause's claim also seems to be supported by the synchronic morphophonology of Gothic. As noted above, the effects of Sievers' Law are still evident in such Gothic contrasts as matjib / sokeip. They are also visible in the genitive singular of such masculine jo-stem nouns as harjis 'army, host' L 2.13 and hairdeis 'shepherd' M 9.36 (< *herdijis). Vennemann ("Gothic Vowels") and Beade ("Sievers' Law") have pointed out that alternations of this sort call for a synchronic phonological rule much like Sievers' Law. By means of such a rule, long- and short-stem jo-nouns can be reduced to a single class involving a single set of inflectional endings at the underlying level--as can long- and short-stem jan-verbs. Without such a rule, however, each of these inflectional classes must be bifurcated.

There are, unfortunately, complications which have led some scholars to argue against this approach. The objections have been presented most effectively by Oscar F. Jones in his article, "The Case for a Long u-phoneme in Wulfilian Gothic," (Orbis, 14 [1965], 398-399). Here, Jones points out that long-stem neuter jo-nouns frequently show the genitive singular ending -jis, which ought to appear only after short stem-syllables. Thus *reiki 'rule, power, kingdom' has the genitive reikjis k 15.24. The expected ending -eis appears in trausteis 'covenant' E 2.12, while andbahti 'service'
Ph 2.30 shows both endings: andbahteis L 1.23, andbahtjis k 8.4. Jones notes that the same irregularity appears in long-stem masculine jon-nouns. Thus bandja 'prisoner' E 3.1 has the genitive singular bandjins t 1.8 (not *bandeins). Indeed, none of the long-stem masculine jon-nouns shows the expected ending *-eins.

Jones also claims to have found two instances of the converse irregularity. Thus -ei appears irregularly for expected -i in the weak jan-verb imperative—cf. short-stem nasei 'save (us)!' M 8.25 like long-stem prafstei buk 'comfort yourself!' L 8.48. Apparently, ei is also irregular in deverbal nouns like naseins 'salvation' L 19.9. These irregularities, together with the irregular genitives cited above, have led Jones to reject the claim that a synchronic version of Sievers' Law exists in Gothic. The evidence is, however, not nearly so strong as Jones takes it to be.

As regards the jan-verb imperative: ei is irregular in both the short-stems and the long-stems alike. Indeed, the regular reflex of word-final -j in Gothic is short -i, regardless of stem length. This is clearly shown in the ja-stem nouns: neuter nominative singular arbi 'heritage' L 20.14; masculine and neuter accusative singular meki 'sword' E 6.17, unkunbi 'ignorance' K 15.34; vocative singular leiki 'physician' L 4.23.

Ei is also irregular, synchronically at least, in both short-stem and long-stem deverbal nouns from jan-verbs. Parallel formations like mitons 'thought, reasoning' L 9.46 (from *miton 'to think', cf. mitob M 9.4) and bulain 'sufferance, patience' R 15.4 (from bulan 'tolerate, endure', cf. bulaih K 13.7) indicate that the formant -n- was added directly to the stem. In this case we should expect not
only *nasins but *sōkins as well. The attested forms, however, are naseins 'salvation' L 19.9 and sōkeins 'a search' Skeireins 3.7.

The fact that ei for i is irregular in both short and long stems suggests that we are not dealing with phonemicization of the Sievers' Law allophones. Rather, we seem to be confronted by a modification, at the underlying level, of the stem marker itself. Whatever the explanation of this modification, it is sufficient to note here that the cited irregularities probably have nothing to do with Sievers' Law (see further 3.5.1).

There remain, however, the irregular genitives of the jo-stem neuters and the jon-stem masculines. These forms undeniably violate Sievers' Law while the jo-stem masculine genitives and the second and third persons singular of the weak jan-verbs undeniably obey Sievers' Law. Oscar F. Jones seeks to resolve this conflict by throwing out Sievers' Law and by claiming that all the endings are irregular (i.e. underlying). It would seem a wiser course, however, to retain Sievers' Law, and the grammatical simplifications which follow from it, while seeking to define the range of its exceptions. Two points argue in favor of this approach. First, irregular endings occur only in long-stem nouns—that is, we never find short-stem forms like *hareis. This strongly suggests that there are rules which generate the long-stem endings, but that, in certain instances, some additional factor intervenes to block the application of these rules. Secondly, the irregular endings are limited to two readily definable classes of nouns. Such restriction indicates only that these noun classes are marked, not that Sievers' Law has broken down. I believe, therefore, that one may still write for Gothic the
synchronic rules (1) and (2). These two rules account neatly for the jo-stem genitive singular (masculine) and for the second and third persons singular of the weak jan-verbs as shown in Table Two.

(1) \( j \rightarrow ij / \text{[long syllable]} \) \( V \)

(2) \( j \rightarrow \emptyset / i \) \( i \)

/harjis/ /herdijis/ /nasjiː/ /sokjiː/
(1) ----- herdijis ----- sokjiː
(2) ----- herdiiː ----- sokiiː

harjis hairdeis nasjiː sokiiː

Table Two

As noted above, the irregular genitives indicate that some additional factor, as yet unconsidered, has interfered with the application of rule (1) in both the jo-stem neuters and the jon-stem masculines. Here it is important to note that each of the noun classes under consideration has a clearly delineated semantic correlate. Thus the masculine jo-stems are predominantly agent nouns. This formation is of Indo-European vintage, though, according to Hans Krahe and Wolfgang Meid, it is no longer productive in Germanic—Germanische Sprachwissenschaft, III, Wortbildungsllehre (Berlin, 1967), p. 70. In Gothic, its function has been taken over by the highly productive jon-stem nouns, e.g. skattja 'money changer' < skatts 'money, gold piece' (see Krahe-Meid, p. 70). The neuter jo-stems, on the other hand, are predominantly abstract nouns, and Krahe-Meid state (p. 72) that the formation is still productive—cf. hauhisiː 'the highest height, highest heaven' (< superlative
It is interesting to note that irregular endings occur only with productive suffixes, while the unproductive suffix is completely regular. This suggests that we are dealing in part with synchronic morphological conditioning reflective of diachronic shifts in word-building processes. Where the suffix is productive, i.e. understood as a separable derivational element, the rule is blocked. Where the suffix is unproductive, and the stem therefore understood as monomorphemic, the rule applies. In generative terms, we might state that the rule does not operate across a derivational-affix boundary.

Correlating Sievers' Law with the productivity of suffixes in Gothic enables us to understand at once the difference between the jo-stem masculines on the one hand and the jon-stem masculines on the other. Looking at the jo-stem neuters in the same light, we find that it is not the long-stem jis-genitives but rather the eis-genitives which are irregular. These are perhaps to be explained as sporadically reanalyzed forms in which what should actually be a productive suffix has been confused with a segmentally identical unproductive suffix (see further 3.1.1 (b)). It would be inappropriate here to pursue this matter further, for I believe it is now sufficiently clear that the irregular endings do not contradict the thesis that Sievers' Law has survived into Gothic. Indeed the very notion of irregular endings presupposes that there is a regular phonological process to which the endings in question are exceptions. That exceptions appear only in long stems, that they are further restricted to productively-suffixed long-stem nouns— all this strongly suggests that Sievers' Law did survive into Gothic.
Leaving the above, we must return to the claim, implicit in Krause's account, that orthographic \( j \) represents both \([j]\) and \([ij]\) in Gothic. Clearly, what Krause has proposed is that \( j \) constitutes an example of strict phonemic spelling in contrast to the loose phonemic spellings generally accepted by students of Germanic philology. I see no problem with this claim, however; for, if Gothic spellings were fundamentally phonemic as most scholars maintain, then there remains the possibility that some allophonic distinctions might have gone unrecognized. Here, too, I would note that Gothic scribes were not trained phoneticians. What must strike us in their orthographic practices is not that they failed to write the proposed allophonic alternation of \([j]\) and \([ij]\), but that they heard and occasionally noted the alternation of \( b \) and \( f \). One might, of course, write a very low-level synchronic rule to delete unstressed \( i \) before \( j \), but such a rule has only the advantage of circumventing an otherwise necessary claim of strict phonemic spelling. At the same time, it has the disadvantage of making the spelling of manwjan-class words virtually inexplicable. For these reasons, then, I believe that Krause is probably right and that manwjan-class words probably do not contain syllabic \( w \).

2.9.3. If we remove the manwjan-class from the set of native words purportedly containing syllabic \( w \), the following instances remain: triggws 'true' L 16.10, triggw 'true' T 1.15, waurstw 'deed' J 6.29, gaidw 'lack' Ph 2.30, biwadin 'servitude' G 4.24, and frawalw 'it had caught (him)' L 8.29. Triggws and triggw reflect the so-called Verschärfung of Germanic *-ww-. In his article "Germanic
'Verscharfung' and no laryngeals," (Orbis, 21 [1972], 327-336), R. S. P. Beekes has demonstrated that the Verscharfung is still a poorly understood phenomenon. I will therefore suggest that these words be set aside, for the moment at least, in any attempt to understand syllabic w in Gothic. Perhaps a better understanding of syllabic w will aid us in describing the Verscharfung—or perhaps not. There is little doubt, however, that Verscharfung reflexes will never aid us in our understanding of syllabic w until the Verscharfung itself is adequately explained.

Of the remaining words, waurstw, gaidw, biwadw, and frawalw, the first three must immediately attract our attention in that all are wo-stem nouns. Furthermore, waurstw and gaidw are nouns with long stem-syllables. In his article "Juncture in proto-Germanic: some deliberations," (Language, 31 [1955], 530-532), Werner Winter has suggested that pre-Gothic polysyllabic stems might have been equivalent metrically to long-syllable stems. Peter H. Erdmann—"Suffixial j in Germanic"—has refined this suggestion by noting that two short syllables are equivalent to a single long syllable in Old English, and by adducing evidence for the same equivalence in Gothic. The equivalence appears clearly in the weak verb mikiljan 'to exalt, magnify'—cf. mikileid L 1.46. If two short syllables are indeed metrically equivalent to a single long syllable in Gothic, then biwadw, like waurstw and gaidw, is a long-stem wo-noun.

I believe that this congruence in three out of four examples of Gothic syllabic w is significant. In particular, I would point out that the allophonic distribution described by Sievers' Law probably applied not only to Germanic phonemic */j/ but also to
phonemic */w/* — see Edgerton, "Sievers' Law and IE weak-grade vocalism," pp. 236-237. If the Indo-European rule had been carried intact into Germanic, one would expect the Germanic phoneme */w/* to have had the allophones *[u], *[w], and *[uw], with the occurrence of the last two governed by the length of the preceding syllable(s). That is, Germanic *[w] should have appeared after a short syllable and before a vowel, while Germanic *[uw] should have appeared after a long syllable (or two shorts) and before a vowel. In their Germanic forms, the three words here in question all displayed vocalic endings. Accordingly, we would expect that the predecessors of Gothic waurstw, gaidw, and biwadw should have been Germanic *[wurs-tuwa], *[gaiduwa], and *[biwaduwa] respectively.

These Germanic forms suggest an interesting possibility—namely, that Gothic syllabic w may be nothing other than phonetic [uw], the direct descendant of an identical Germanic allophone of phonemic /w/. Furthermore, such a reading for syllabic w seems to explain a number of otherwise disparate facts. First of all, it enables us to claim that syllabic w is spelled w because it is an allophone of phonemic /w/. In this, the use of orthographic w exactly parallels the (proposed) use of j to represent both [j] and [ij] in strict phonemic spelling. Secondly, the proposal accounts for the fact that native syllabic w never occurs under stress. The appearance of the allophone [uw] is contingent upon the existence of a preceding long syllable while, in late Germanic and presumably in Gothic, primary stress was restricted to stem-initial syllables. Third, it suggests an explanation for the fact that syllabic w (= [uw]) is never confused with orthographic u (= [u] or [uː]). Presumably the contrast
between the pure vowel \( u \) and the diphthong \( uw \) was distinctive.

Fourth, it makes plausible the substitution of syllabic \( w \) for \( [\ddot{u}] \) in Greek borrowings. We know that Wulfila correlated Greek \( [u] \) with Gothic /\( u/\). Greek \( [\ddot{u}] \), a second high round vowel, had no direct equivalent in Gothic, but was matched with the only other high round Gothic syllabic, [\( uw \)]. Again presumably, a naïve Goth confronted by orthographic \( w \) between non-syllables would automatically take the syllabic reading of \( w \): that is, [\( uw \)].

2.9.4. If these considerations make the theory attractive, there remain a number of problems. Most severe, perhaps, is the historical question: how could Sievers' Law (or its synchronic descendant) continue to apply to phonemic /\( w/\) after the loss of final short vowels in pre-Gothic? I believe this question may be plausibly answered as follows. First, the -\( ij- \) and -\( uw- \) produced by Sievers' Law are bisegmental phonetic sequences, even though each is mono-segmental (/\( j/\), /\( w/\)) at the phonemic level—cf. Marchand, "Sievers' Law and a rule of Indo-European syllable formation". The bisegmentality of -\( ij- \) and -\( uw- \) appears in the fact that -\( ij- \) contracts to long \( i \) (not short \( i \)) sometime after the loss of final short vowels. Thus the nominative singular of the word for 'shepherd' has the following derivation: *\( herdijaz \rightarrow *\( herdijz \rightarrow *\( herdis \) (Gothic \( hairdeis \)).\( ^{11} \) From the bisegmentality of -\( ij- \) and -\( uw- \), it follows that the loss of final vowels led at first to surface forms in which -\( ij- \) and -\( uw- \) appeared as diphthongized syllables before final consonants and in absolute finality. This development is shown in Tables Three and Four. Table Three states Sievers' Law as it
presumably existed in Germanic and gives the forms, both surface and underlying, of the jo- and wo-stem accusative singular. On the word *faru 'form', see Oswald J. L. Szemerényi, "A new leaf of the Gothic Bible," Language, 48 (1972), 6-9. Table Four shows the vowel deletion rule and a semivowel syllabification rule which probably existed at the same time. Vowel deletion is here arbitrarily limited to non-high short vowels, though it should perhaps include i as well if a and i were lost simultaneously in pre-Gothic. The chronology of deletion is, however, unsettled. Note that the monophthongization of -ij- is not shown here since it is clearly a separate step and by no means necessarily the immediate consequence of the loss of final vowels.

STAGE I. Pre-apocope.

rule 3. \( \{ j \} \rightarrow \{ ij \} \) / [long stem] _____V
\( \{ w \} \rightarrow \{ uw \} \)

/harja/ /herdja/ /farwa/ /wurstwa/

3. herdija wurstuwa

[harja] [herdija] [farwa] [wurstuwa]

'army' 'shepherd' 'form' 'deed'
STAGE II. Apocope (Two new rules are added; surface forms are altered).

rule 4. \[ V \rightarrow \emptyset / (C)# \]
- high
- long
- stress

rule 10. \[ \{ j \} \rightarrow \{ i \} / C \]
\[ \{ w \} \rightarrow \{ u \} \]

/harja/ /herdja/ /farwa/ /wurstwa/
3. herdija farw wurstuwa
4. harj herdij faru wurstuw
10. hari [herdij] [faru] [wurstuw]

Table Four

The new surface forms with tautosyllabic \[ ij \] and \[ uw \] (see Table Four) called forth a reanalysis of Sievers' Law such that, after a long stem, phonemic \[ j / w \] became \[ ij / uw \] before a vowel, before a final consonant, or in absolute finality. This extension of Sievers' Law, a product of grammatical 'simplification', is presented in Table Five. I believe it is still reflected in Gothic syllabic \[ w \].
STAGE III. Post-apocope reanalysis. (underlying forms are altered; rule 3 becomes rule 5; rule 4 is deleted; surface forms remain the same).

rule 5. \[
\begin{align*}
\{ j \} & \rightarrow \{ ij \} \\
\{ w \} & \rightarrow \{ uw \}
\end{align*}
\]
/\text{harj}/ /\text{herdj}/ /\text{farw}/ /\text{wurstw}/

5. hari herdij wurstuw

10. \text{hari} \text{herdij} \text{faru}

\begin{tabular}{ll}
\text{hari} & \text{herdij} \\
\text{faru} & \text{wurstuw}
\end{tabular}

Table Five

It is perhaps noticeable that the forms given in Table Five are not all reflected in Gothic. The form *herdij, in particular, seems aberrant since the Gothic form was probably *hairdi, with final short -i identical to that in hari. This lack of parallelism in the development of jo- and wo-stem nouns is, I believe, directly attributable to the monophthongization of tautosyllabic ij. In particular, the monophthongization set the stage for two further developments which effectively split "ars' Law into two new rules. First, following the monophthongization, long -i in absolute finality was shortened. Thus *herdi becomes *herdi. Secondly, in protected position, underlying forms were reanalyzed to derive the new monophthong from -iji-. Thus surface nominative *herdis from historical *herdijs is reanalyzed synchronically as *herdj+is. The new nominative ending is clearly reflected in short stem harjis (older *haris). Compare note 11.
It is significant that we cannot demonstrate the parallel monophthongization of unstressed \textit{uw}. In contrast to the clear evidence for the monophthongization of \textit{ij}, the only forms bearing directly on the fate of \textit{uw} are the words with Gothic syllabic \textit{w}. There is indirect evidence, however, in the preservation of tautosyllabic *\textit{iw} as the Gothic diphthongs -\textit{ju}- and -\textit{iw}-. The first reflex appears in the nominative plural of such \textit{u}-stem nouns as \textit{sunjus} 'sons' (< *\textit{suniws} < *\textit{sunewes}). The second appears in the \textit{wo}-stem adjective nominative singular \textit{lasiws} 'weak' (< *\textit{lasiwaz}). These forms indicate that not all final diphthongs were monophthongized, and it is therefore reasonable to suppose that *\textit{uw}, like *\textit{iw}, may have been preserved (compare Subsection 3.1.3). Table Six shows what effect the monophthongization of *\textit{ij} and shortening of *-\textit{i} had on the accusative singular.

\textbf{STAGE IV. Subsequent fate of *\textit{ij}.} (Two new rules are added; surface forms are altered).

\begin{itemize}
  \item \textbf{rule 6.} \quad \textit{ij} \rightarrow \textit{i} / C \quad \begin{cases} 
    \text{C} \\
    \emptyset
  \end{cases}
  \\
  \text{rule 7.} \quad \textit{i} \rightarrow \textit{i} / \emptyset \\
  \begin{array}{cccc}
    /\text{harj}/ & /\text{herdj}/ & /\text{farw}/ & /\text{wurstuw}/ \\
  \end{array}
  \\
  5. \quad \text{herdij} & \text{wurstuw}
  \\
  10. \quad \text{hari} & \text{faru}
  \\
  6. \quad \text{herd\textbar} & \text{herdij}
  \\
  7. \quad \text{herdi} & \text{herdi} & \text{faru} & \text{wurstuw}
\end{itemize}

Table Six

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Note that the shortening of final *-i and the reanalysis of protected *i (i < ij) as the reflex of underlying iji must have called forth yet another restructuring of Sievers' Law, which now applied to /j/ only in pre-vocalic position. Surface uw, on the other hand, probably continued to appear in all the old environments. That is, Sievers' Law may have split into two rules, one governing the reflexes of /j/, the other determining the allophones of /w/. These rules and the forms derived thereby, are given in Table Seven. Rule 8 does not affect the accusative singular (because of the previous apocope of -a) but is necessary to account for the genitive singular of masculine jo-stem nouns with long stem-syllables.

STAGE V. Consequent reanalysis. (Rule 5 becomes rules 8 and 9; rules 6 and 7 are deleted; underlying and surface forms remain the same).

rule 8. \( j \rightarrow ij / [\text{long stem}] \quad \{} \quad V \}
rule 9. \( w \rightarrow uw / [\text{long stem}] \quad \{} \quad \{V \}
\quad \{C/#\} \)

/\text{harj}/ /\text{herdj}/ /\text{farw}/ /\text{wurstw}/
8. --- --- --- ---
9. wurstuw
10. hari herdi faru

[hari] [herdi] [faru] [wurstuw]

Table Seven
As the tables make clear, changes in surface forms, brought about by the addition of new synchronic rules, in turn called forth changes in underlying forms as well as in the rule set. Thus, after the loss of final non-high short vowels (STAGE II), the underlying forms of Stage II were no longer readily recoverable from the surface forms. As a result, new and more readily discernable underlying forms were postulated (STAGE III), and the rule set was adjusted to provide more straightforward derivations. Through such processes, Sievers' Law was twice modified (at Stages III and V) between Germanic and Gothic times.

The final rule set—rules 8, 9, and 10—may well have been part of the synchronic grammar of Gothic. Certainly, the surface forms produced by these rules are identical to those attested in Gothic if, as proposed, Gothic syllabic ʷ is phonetic [uw]. In that rule 9 can be plausibly derived, diachronically, from a hypothetical Germanic rule supported by extra-Germanic comparative evidence, there would seem to be no phonological impediment to accepting this thesis. Indeed, it is only when we have accepted the thesis that the distribution of Gothic j and ʷ becomes both meaningful and systematic.

2.9.5. There are, however, three Gothic words which appear to contradict the claims of this section. This first of these is the third singular preterit indicative form frawalw 'it had caught (him)' L 8.29 to the infinitive *frawilwan (cf. wilwan 'to rob, plunder, take by force' Mc 3.27). Considering this form, one is tempted to speculate that frawalw should be grouped with biwaw...
'servitude' G.4.24 as an example of the metrical equivalence: two short syllables equal one long syllable. However, I am not aware of any other cases in which simplex and prefixed forms vary in this manner (*walu / frawalw). That is, we do not find, beside lagjib 'he lays (it) down' L 9.44, the form *galageib, in which the addition of a prefix has conditioned the allophone [ij] of underlying /j/. From this, it would seem to be the case that only stem syllables count in determining the distribution of allophonic j / ij and w / uw. If this is so, then -walw must appear as a counterexample to the theory that syllabic w is [uw], an allophone of /w/ the occurrence of which is determined by the length of the preceding syllable(s). I would note, however, that the single attestation of frawalw occurs in the following context: manag auk mel frawalw ina 'for many times it had caught him' L 8.29. It should not be ignored that here frawalw appears immediately before the clause-final and unstressed pronoun, ina. In such a construction, the pronoun may have been enclitic, yielding not the expected [frawalu # ina], but the attested [frawalwina]. If a reading with encliticization of the pronoun is correct here, then the final w of frawalw is regularly non-syllabic before the following vowel.

The remaining problem words are widuwo 'widow' and its derivative widuwairna 'orphan'. If, as I have suggested, the phonetic sequence [uw] is represented by the Gothic grapheme w, why is uw spelled-out here? In answer to this question, I would note that these words appear to be the only uncompounded Gothic forms in which graphic w follows a rounded vowel. This graphemic exceptionality may indicate a morphophonemic exceptionality: specifically, that

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the stem of widuwo and widuwairna is /widuwo/ at the underlying level, in violation of what appears to be a morpheme structure constraint of Gothic. If the stem is indeed phonemic /widuw-/, then the surface form could only be spelled with uw. The grapheme w can represent [uw] only after a long syllable; the initial syllable of /widuw/-- is short. It would seem then that neither frawalw nor widuwo/widuwairna contradicts the thesis that syllabic w is phonetic [uw], an allophone of /w/ in Gothic. Lacking any clear evidence which might oppose this thesis, I am persuaded of its likely validity.

2.9.6. In conclusion, I would like to return to the fact that the written form of Gothic w is clearly derived from the Greek letter upsilon. It was this graphemic correspondence, coupled with the supposed spirantal value of post-vocalic upsilon, which provided the only reasonable support for Jellinek's hypothesis that Gothic w represented a spirant. Now that Bennett, Oscar F. Jones, and A. M. Sturtevant have effectively demolished the spirant hypothesis, the graphemic derivation of Gothic w is once more a puzzle. How was it that a letter which usually represented a vowel in Greek came to represent a phoneme which was usually non-syllabic in Gothic? I think one must believe that syllabic w somehow played a role in this exchange.

Thus I would note that the Greek alphabet provided no symbol for [w] since this sound, though common in Gothic, did not exist in Greek of the period. At the same time, however, the Greek symbol upsilon represented a sound ([ü]) which did not occur in Gothic. That is, the conditions for realignment of symbol and sound were
clearly present. As to the realization of this potential shift, one must note that the Greek vowel represented by upsilon had a rough equivalent in Gothic [uw], an allophone of phonemic /w/ which was not readily distinguished, by a native Goth, from allophonic [w]. From this, one might postulate the following syllogism: Greek [ü] = Gothic [uw], Gothic [uw] = /w/, therefore Greek [ü] = Gothic /w/. The syllogism is not perfect since Gothic /w/ had a third allophone, [u], which was distinguished in spelling from both [w] and [uw]. In fact, [u] is always spelled u, whether it comes from phonemic /u/ or from /w/. I believe, however, that the general course of development is clear: The identification of syllabic w with Greek upsilon led to the choice of upsilon to represent both syllabic w and its non-syllabic co-allophone [w]. The allophone [u] was distinguished only because Greek orthography provided a model for this distinction.
NOTES

1 I wish to thank Dr. David S. Rood of the University of Colorado for his many valuable comments on an earlier draft of this section.

2 Hereafter I will refer to words with final -Cw or -Cws as 'waustw-class words,' and I will form other nonce classes as occasion demands. In addition to the words cited above, it is possible that the word for 'true', triggw L 16.10, triggw T 1.15, also belongs in the waustw-class, though this is not certain (see below). The word saggws 'song', cited in some recent grammars, is a ghost form, perhaps the result of a misprint in the glossary to Wilhelm Streitberg's Die gotische Bibel (Heidelberg, 1971). On the word frawalw 'it had caught (him)' L 8.29, see below. The abbreviations used above and in this note refer to the books of the Gothic Bible and follow the usage established by Streitberg.

3 Following the practice described in note two, I will refer to these and similar words as 'manwjan-class words.' Both Joseph Wright (Grammar of the Gothic language, 2nd. ed., [London, 1954], p. 12) and William H. Bennett ('The phonemic status of Gothic w, hw, g,' Language, 35 [1959], p. 428) have read syllabic w in words of this class.


7 On this proposed sound substitution, see Bennett, "Monophthongization," pp. 20-21; Bennett, "Phonemic status," pp. 427-428; Oscar F. Jones, "Nonsyllabic allophones," p. 510, note 8; and Bennett, "Gothic spellings," p. 22.


9 Sievers' Law is a rule of Indo-European provenience—see Oswald Szemerényi, Einführung in die vergleichende Sprachwissenschaft (Darmstadt, 1970), pp. 100-102. Compare also Franklin Edgerton, "Sievers's Law and IE weak-grade vocalism," (Language, 10 [1934], pp. 235-237), for evidence that the rule applied to */w/ as well as to */j/. James W. Marchand describes the rule in terms of syllable structure constraints—"Sievers' Law and a rule of Indo-European syllable formation," General Linguistics, 3 no. 2 (1958), 73-84. Peter H. Erdmann—"Suffixial j in Germanic," Language, 48 (1972), 407-415—suggests that, for Germanic at least, two short syllables were metrically equivalent to a single long syllable in conditioning the rule.

10 Thus Herbert Penzl, "Review of Handbuch des Gotischen by Wolfgang Krause," Language, 30 (1954), 412; Marchand, "Vowel length," 79-88; and Oscar F. Jones in the article cited immediately below.
At an early stage of pre-Gothic, the nominative singular of the word for 'army' was probably *haris and the genitive was probably *harjis. In attested Gothic, however, both cases appear as harjis. The reformation of nominative singular *haris to harjis must have been based on the equation, "nominative singular equals genitive singular." This equation could only have come from the long-stem jo-nouns and therefore presupposes that nominative singular *herdijs had become *herdis, parallel to genitive singular *herdis (from pre-surface *herdijs). I would note, however, that the development of nominative *herdis must have immediately led to a reanalysis of the nominative singular ending. Prior to the monophthongization, the ending was *-s (*harj + s; *herdij + s). Afterwards, it was analyzed as *-is (*harj + is; *herdij + is = *herdijs > *herdijs). That is, the monophthongization was self-effacing; synchronic surface i can come only from pre-surface i or -iji-, not from -ij-.

The correct form, galagjib 'he had laid (them) down', appears in K 15.25. Note also uslagjib 'he lays (it)' L 15.5. Further: satjib 'he sets' K 9.7, faura-pasatjib 'he sets (it) before (someone)' k 4.14; matjib 'he eats' J 6.54, gamatjis 'you will eat' L 17.8.
SECTION 2.10
On the fate of final *-m

It is generally held that, in Germanic, Indo-European *-m in absolute finality first merged with *-n and then was lost everywhere except in monosyllabic words where *-m/*-n followed a stressed short vowel. Both the merger and the conditioned preservation of the nasal seem open to doubt. More certain is the claim that the loss of nasals in absolute finality preceded or was synchronous with the loss of final dental obstruents—see the third plural preterit indicative, Germanic *-un (< *unt < *-nd).

Evidence for the change of final *-m to -n is drawn from only two morphemes, both occurring in the pronominal declension. The first of these is the masculine accusative singular: Gothic ina 'him', bana 'that', hwana 'whom'; Old English hine, bone, hwone; and related forms in the other dialects. This morpheme is also reflected in the strong adjective declension: Gothic -ana, Old English -ne, and so on. The second morpheme is the so-called 'prosecutive' case—so named by Ingerid Dal, "Die germanischen Pronominalkasus mit n-Formans" (Ingerid Dal, Untersuchungen zur germanischen und deutschen Sprachgeschichte [Oslo, 1971], pp. 86-128). Relevant forms are Gothic ban/bana and hw a n; Old English bon, hwon; and their cognates. Dal has shown that the prosecutive -n is of Indo-European vintage and has further reconstructed the Germanic form as *-na (*-ne is perhaps more likely—see 3.2.1 (a) genitive singular). Not only is the nasal not final here, but it was apparently never labial.

One is left, therefore, only with the pronominal masculine accusative singular. In Gothic bana, Old English bone, the nasal is not in final position. Accordingly, one may well doubt the evidence of this case for the change of final *-m to n. Gothic bana is usually derived from Indo-European *tom with a change of m to n and the addition of a particle. The particle is compared with Sanskrit a 'unto', which governs the accusative case with verbs of motion and which usually occurs (in Vedic) as a postposition. There are, however, several problems with this explanation. First of all, if Gothic bana, Old English bone are comparable, then one must reconstruct a Germanic form with nasalized *a in final position.
since non-nasal *a would yield pre-Old English *-u in final position. The nasalized *-ā of the Germanic form is not explained directly by Sanskrit ā. Secondly, Sanskrit ā is one member of a class having several Germanic cognates. In Germanic, however, these elements are prepositions. The theory does not explain why ā alone remained or became a postposition in Germanic--nor indeed why only ā became enclitic. Third and most significant, Sanskrit ā like the Sanskrit and Germanic prepositions, governs cases, not stems. One must ask, therefore, how it was that postpositional ā fused only with a preceding masculine or neuter pronoun--never with a feminine pronoun, and never with a noun. In my opinion, these unresolved difficulties rob the traditional account of its supposed explanatory power; a new explanation will be offered in 3.2.2.

We have seen above that a change of final *-m to n is supported only if one accepts the traditional explanation of pronominal *-nam (accusative singular). If that explanation can be challenged, however, then the merger of final nasals must also be open to doubt. In fact, it would seem that we cannot know whether nasals did or did not merge prior to their loss in absolute finality. The assumption that they did merge is unsupported by direct evidence.

The conditioned preservation of final nasals is as poorly supported as the supposed change of *-m to n. In 1877, Hermann Paul suggested that final nasals might be retained after stressed vowels ("Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialekten," PBB 4, p. 388). The suggestion was formalized by W. van Helten in his article, "Grammatisches [IX]," PBB 15 (1891). Van Helten wrote (p. 477): "Genau dasselbe prinzip
nun lässt sich für die periode der alten consonantischen apocope in der behandlung der einsilbigen formen nachweisen: im volltonigen *ir, *pat (oder *pot), *ban (oder *bon) u.s.w. blieb der cons. erhalten, in dem en- oder proclitisch verwantan *ir u.s.w. fiel es, wie in allen unbetonten suffixen der zwei- und mehrsilbigen formen, ab." Van Helten's principle was corrected almost immediately by Wilhelm Streitberg— Zur germanischen Sprachgeschichte (Strassburg, 1892): "van Helten hat im XV. Band von Paul-Braunes Beiträgen s. 473ff. das Gesetz aufgestellt, dass im Germanischen auslautendes -n nach haupttonigem Vokal nicht schwinde . . . Im wesentlichen bin ich mit dem Gesetz durchaus einverstanden . . . Eine Einschränkung des Heltenschen Gesetzes ist aber unerlässlich: es gilt nicht für n nach betontem langen Vokal." (pp. 60-61). Streitberg cites the accusative singular forms Gothic bo, hwo, Old High German chuō to make his point.

Van Helten's principle, as amended by Streitberg, has been cited ever since as an established law. References are: R. C. Boer, Oergermaansch Handboek, p. 160, Aamm. 2; Hermann Hirt, Handbuch des Urgermanischen, Teil I, p. 131; Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, Teil I, p. 124. In each of these works, the forms given as supporting evidence are the old pronominal prosecutives—which, of course, do not reflect final -n at all. Indeed, there seems to be no evidence for the retention of final nasals in attested Germanic.

As van Helten's original statement indicates, the stressed vowel/unstressed vowel distinction was proposed to explain the retention or loss not only of nasals, but of all final consonants,
including such divergences as appear in the neuter interrogative pronoun: Old English hwæt, Gothic hwæ (both supposedly from Germanic *hwat, Indo-European *kwod). This particular problem, however, may stem from a misunderstanding of the interrogative. The crucial fact is that the endings of the Germanic interrogative pronoun may be historically identical to the endings of the strong adjective declension. That is, the Germanic nominative and accusative singular of the neuter interrogative pronoun may have been not *hwat but *hwam (compare not Latin quod but Sanskrit kim, masculine kam). This possibility was pointed out by Hermann Möller in the review of Kluge's Urgermanisch which appeared in Anzeiger für indoGermanische Sprach- und Altertumskunde 33 (1914), p. 58. See further 3.2.2 below.

Historically and systematically, there is a close connection between the neuter interrogative and the neuter demonstrative, as also between the latter and the masculine demonstrative. Given these relationships, the retention of final *-t after a short stressed vowel, and the loss of final nasals under all conditions, the dialectal renewal of the pronominal accusative can be explained very neatly, as shown in the table.
It has always been difficult to derive Gothic hwa from *hwat if only because—starting from *bat, *hwat—one would expect *hwata like bata. In the face of attested hwa versus bata, van Helten's principle must seem highly arbitrary. More reasonable, in my opinion, is an explanation of Gothic hwa which starts from Germanic *hwam and which also postulates the loss of final nasals even after short stressed vowels. The subsequent North-West Germanic renewal of *hwa to *hwat on the model of *bat is seemingly still in progress in Old Icelandic huá beside huát. Accordingly, given the neatness of this derivation and the seemingly total lack of forms retaining final nasals, I do not hesitate to claim that Germanic *m and *n were lost everywhere in absolute finality. Whether *m or *n followed an unstressed vowel or a stressed, a short vowel or a long, apparently makes no difference whatsoever.
SECTION 2.11

Indo-European *-t/*-d in (Germanic) absolute finality

Our handbooks of Germanic linguistics frequently list *-ød/ *-ad as the Indo-European o-stem ablative singular, *-t as the Indo-European third singular secondary verbal ending. These descriptions would seem to imply that there was a phonemic contrast between *-d and *-t in Indo-European absolute finality, and it might be supposed that this distinction could have consequences for Germanic diachrony. It is important to note, however, that a phonemic contrast between Indo-European *-d and *-t in absolute finality probably cannot be defended. Thus A. Meillet has written (Introduction à l'étude comparative des langues indo-européennes, 8th ed. [1937; reprint University of Alabama Press, 1964], p. 137):

Les occlusives finales sont traitées autrement que les occlusives intérieures. Pour l'ä sanskrit, ... elles sont sourdes ou sonores suivant qu'elles sont suivies d'une sourde ou d'une sonore (consonne, sonante ou voyelle), tandis que, sauf devant occlusive sonore, les occlusives de l'intérieur du mot conservent leur qualité propre: le sanskrit oppose donc -at ta-, -ad da-, -ad ra-, -ad a- de la finale à -atna-, -ata-, etc. qui sont lícites à l'intérieur du mot. ... Dans les cas de ce genre le latin a toujours -d, ainsi istud, v. lat. feced; le -t des troisièmes personnes comme uëhit (d'óù fecit par analogie)

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provient de ce que ce sont d'anciennes finales en *-eti . . .
dont le *-i final est tombé en latin.

It appears to be the case that the distinction between *-t and *-d in Indo-European absolute finality was allophonic (as in Sanskrit). Early Latin has generalized the voiced allophone. H. Craig Melchert has found evidence for a similar generalization in Hittite: *Ablative and instrumental in Hittite*, Harvard Ph. D. dissertation, 1977, p. 475, note 11. The similarity of the early Latin distribution to the pre-Germanic state of affairs has been pointed out by Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970), p. 217:

... im Altlatein finden wir von den frühesten Inschriften bis herunter zum Beginn der Literatur einen Unterschied zwischen FECED, KAPIAD, SIED (die späteren fecit, capiat, siet = sit) und IOVESAT (= iurat), der sich dadurch erklärt, dass ursprünglich auslautendes -t zuerst zu -d wurde, -ti aber auch nach Abfall des -i stimmloses -t blieb; zu Beginn der Literatur wurde dann die Doppelheit -t/-d zugunsten von -t aufgegeben. Ebenso erfordert das gotische -j (z.B. bairip 'er trägt') noch einen auslautenden Vocal—der mit Hilfe der archaischeren Sprachen als i bestimmt werden kann—da ein auslautendes -t verloren ging, vgl. wili 'er will' gegenüber wileip 'ihr wollt' aus *welīt . . . und *welīte.

That the obstruent lost in absolute finality was Germanic *-t* (< Indo-European *-d) not *-b/*-g (< Indo-European *-t) is argued.
by the preservation of \(-t\) in monosyllabic neuter pronominal forms, e.g. Old Icelandic \(\text{hat}\), Old English \(\text{æet}\), Old High German \(\text{daz}\), from Indo-European \(*\text{tod}\). As noted by F. Tamm—"Auslautendes \(t\) im Germanischen," *Beiträge zur Geschichte der deutschen Sprache und Literatur* 6 (1879), pp. 400-407—final \(*-t\) is preserved in monosyllables but lost otherwise. Compare also Hermann Hirt, *Handbuch des Urgermanischen, Teil I, Laut- und Akzentlehre* (Heidelberg, 1931), p. 130.

It follows from the above that Indo-European \(*-d\) and \(*-t\) in absolute finality were probably both \(*-t\) in Germanic absolute finality, and that the conventional reconstruction of \(*-t\) as an Indo-European secondary verbal ending should not lead us to propose \(*-p/\*-\text{o}\) as the corresponding Germanic form.
SECTION 2.12

Germanic *-s/*-z: Verner's Law and final spirants

The systematic correspondences described by Verner's Law involve a major structural change in the segmental phonemic inventory of pre-Germanic. The effects of this change are pervasive in the attested dialects, and the nature of the Germanic / non-Germanic correspondences has been essentially undisputed since Verner first described it in 1875. Given the importance of the change, and the quantity and clarity of the data, it is somewhat disconcerting to find variant and incompatible formulations of this well-known law. Thus, perhaps all scholars will agree that Verner's Law describes the voicing (or laxing) of certain non-initial voiceless spirants in pre-Germanic. One group, however, maintains that the voicing was an unconditioned change with conditioned exceptions: specifically, voicing was prevented by the presence of word accent on the nearest preceding vowel.\(^1\) A second group maintains the opposite view: the voicing of non-initial spirants was a conditioned change primarily linked to the presence of word accent on the nearest following vowel.\(^2\) The two views have different consequences in words of three or more syllables. Furthermore, each formulation appends such secondary statements as "in voiced surroundings". Unfortunately, neither group is consistently clear about whether "voiced surroundings" includes word-final position.
I mention these variant conceptions of Verner's Law only as a preface, or forewarning, to the following discussion. This is not the place, nor am I the man, to attempt a definitive reformulation of the rule. Rather, I am concerned here with a narrower question which I believe neither school has adequately handled. That question is simply: Did Verner's Law, however it may be stated, apply to spirants in absolute finality in such a way as to produce reconstructable doublet forms in early Germanic? That is, must we actually set up, for example, both *-as and *-az as possible endings for the masculine o-stem nominative singular, or was there never more than a single reconstructable form for this and similar inflections? Since, heretofore, most scholars have believed that Verner's Law did lead to spirant doublets in early Germanic absolute finality, it is necessary to examine the reasons underlying this belief and to set forth such evidence as may exist in its support.

There is no better place to begin this survey than with Verner's article itself. For convenience, I cite the translation published by Winfred P. Lehmann in A reader in nineteenth-century historical Indo-European linguistics (Bloomington, 1967). There, on page 148, Verner states his law in its final form as follows: "IE k, t, p first shifted to h, b, f in all environments; the voiceless fricatives thus originating, together with the voiceless fricative s inherited from Indo-European, then became voiced medially in voiced environments, but remained voiceless when they were the final sounds of accented syllables." Two points here require comment. First, the choice of the term medially is unfortunate. Since Verner later applies his rule to spirants in absolute finality, what he apparently
means is non-initially. Secondly, the phrase in voiced environments appears to mean when not abutting a voiceless obstruent.

Under this interpretation, final position may indeed constitute a voiced environment. Verner turns to the question of absolute finality on pages 157-58. He writes:

Finally, what may be said about the s, which occurs frequently in Indo-European declensional endings? In the nominative singular masculine the ending -s was to be expected according to our rule for all originally oxytone and one-syllable stems: [he gives examples], for all other stems, the ending -z: [examples]. In the genitive singular of the feminine a-stems, -s and -z would similarly be expected according to the accentuation: [examples]. So too in other declensional endings which include IE s. Germanic, however, generally shows only -z . . . [After examples of uniform -z where -sf/z might be expected, Verner continues:] The language observed unity of inflectional endings. Where the phonetic development would have impaired unity, the language suspended the sound law and monopolized the most frequently occurring ending . . .

It is interesting to note that Verner believes in the prior existence of -s/z doublets even though he seems to find no evidence for them. (On pp. 153-54 he explains the West Germanic second singular verbal endings in -s as due to the suspension of his law.) Considering Verner's thoroughness and his insistence upon attested correlations, this is perhaps remarkable. Apparently, however, Verner is here relying on the principle of simplicity.
To understand this, one must consider the purpose and structure of the law which Verner sets forth. According to Grimm's Law, Indo-European voiceless stops yielded voiceless spirants in Germanic. This is the 'normal' development. In certain instances, however, one finds Germanic voiced spirants corresponding to the Indo-European voiceless stops. This is the exceptional development which Verner seeks to explain. As his statement of the rule makes clear, Verner postulates that the voiced spirants represent an additional development beyond the voiceless spirant stage. Since voiced spirants are attested from voiceless spirants in absolute finality (Old Norse dagr 'day' with \(-r < *-os\)), final spirants too must have participated in this additional step. Since the development has a condition (voiceless spirants remain after stressed vowels), final spirants must have been subject to this condition as well. Thus there must have been \(*-s/*-z\) doublets. To exempt final spirants from the stress condition would grossly complicate the statement of the rule. To exempt them from the rule itself would require the addition of a second rule to account for Old Norse dagr, etc. Thus Verner regards his rule as a statement of spirant voicing with conditioned exceptions. Simplicity of statement has compelled him to postulate the existence of original doublet forms from spirants in final position. He explains the non-attestation of these doublets as due to levelling (i.e. "unity of inflectional endings").

Verner's formulation and the implicit steps which led him to postulate original \(*-s/*-z\) doublets have their adherents even today.\(^3\) Eighty-five years ago, however, some scholars had already come to question the role played by analogy in effacing the original doublet
forms. First and foremost among these men was Hermann Hirt. In his article, "Grammatische Miscellen" (PBB 18 [1894] p. 527), Hirt wrote: "Meine meinung nun ist die, dass im ahd. jedes ursprünglich auslautende -s, mochte es im germ. als -s geblieben oder zu -z geworden sein, abgefallen, und dass also ein in absoluten auslaut stehendes, erhaltenes -z wie im gotischen secundär wider zu -s geworden ist." Here Hirt is concerned only with Old High German developments (which he goes on to discuss), but his theory has wider implications for (West) Germanic as a whole. Considering these implications, two points are significant. First, Hirt does not challenge the prior existence of doublet endings. Secondly, he claims that the effacement of these doublets was brought about by a regular phonological rule (or rules). This, of course, makes the question of doublet forms all but academic and implies that, at least insofar as the apocope rule is concerned, final *-s and *-z may have fallen together.

The question raised by Hirt's proposal may be summarized as follows: Should one retain Verner's simplicity of statement, a single rule for all spirant voicing, even though that simplicity entails widespread analogical restructuring, or should one supplement Verner's Law with a second rule, voicing of spirants in absolute finality (ON dagr) if that second rule will reduce analogical restructuring to only a handful of cases?

Hirt was challenged on this very question by Francis A. Wood in his article, "Final -s in Germanic" (MLN 11 [1896], p. 366). Wood stated his own opinion as follows: "Final -s very often became -z by analogy, but never through phonetic change. A -z..."
thus arising disappeared in W. G. [West Germanic] the same as an original Germ. *-z." Wood's intimidating certainty on this point is supported by less than formidable argument. He writes (p. 366):

We know that in o-stems in Germ. the nom. sing. should, according to accent, end in *-sz or *-as. As a matter of fact we have no evidence that the nom. sing. ever ended in *-as. In O. N. the ending is uniformly -r or its equivalent, and that, too, where we know the final -s was preceded by an accent, as in the preterit participle. Even in stems in O. N. assumed *r in the nom. sing., as heıör. That the same generalization took place in all the W. G. dialects cannot be affirmed positively—unless it is proved that final *-s remained—but it is highly probable. It is at least more reasonable to assume such a generalization than to set up a separate phonetic law to account for the disappearance of final *-s.

I cannot agree with Wood's assessment here. He concedes an all but total lack of evidence for original doublet forms; yet, like Verner and Hirt, he affirms their prior reality. Offered, by Hirt, a phonological explanation of their disappearance, Wood rejects it and states that an analogical account is preferable. This is a curious position for one who writes well after the Neogrammarian revolution. Apparently, however, what Wood has failed to understand is that Hirt's theory entails not a separate rule for the loss of final *-s, but a single rule for the loss of both *-s and *-z. It is indeed unfortunate that Wood has missed this point, for
it undercuts his position entirely. As a result, Wood's argument has little to do with the acceptability or invalidity of Hirt's hypothesis.

In contrast to Wood, Alois Walde read Hirt very carefully indeed. In his book, *Die germanischen Auslautgesetze* (Halle, 1900, p. 129), Walde noted:


Walde gives his own opinion on page 130:

> Sehr einfach löst sich unsere Frage bei folgender Auffassung: Der s-laut fällt, unabhängig vom Vernerschen Gesetz, auf dem Wege über -z ab nach kurzem oder geschleiftem langen Vokale ursprünglich letzter Silben, sowie nach Konsonant (n); er bleibt nach gestossener Länge und nach einem kurzen Vokale, der erst durch den Schwund eines auf den s-Laut folgenden Vokales in letzte Silbe geriet.
Note here that Walde is at one with Hirt on the crucial point:
in absolute finality, *-_s and *-_z were either never distinguished
or had merged prior to their loss in West Germanic. Walde's
statement of conditions for this loss (according to the length or
accent of the preceding vowel) is merely an attempt to explain as
regular certain forms in which final _s has been retained, seemingly
since pre-Germanic times. Unfortunately, however, Walde's rule has
its own exceptions. In his list of supporting forms for the loss
of *-_s/*-_z after trimoric vowels (geschleiftem langen Vokale),
Walde includes both the genitive singular and the nominative plural
of _a-stem nouns, apparently in the belief that these forms were
identical in (West) Germanic. Evidence from Early West Saxon indi-
cates, however, that they were not (see Table One).

(W) Gmc.       EWS
   G. sg. *-_az  -e
   N. pl. *-_oz  -a
   Ac. pl. *-_az  -e

Table One
_a-stem nouns

In the Early West Saxon forms, a difference in vowel quality
(accents? quantity?) is preserved; *-_z, however, is lost regardless.
(On the forms, see 3.1.2 (a).)

Walde was taken to task on other but similar grounds by Victor
Michels in his review of Die germanischen Auslautgesetze (ZfdP
34 [1902], pp. 114-126). Thus (pp. 119-120): "Ausserdem spricht
für die bewahrung nach gestossener länge nur ahd. 2. sg. prät.
neritos; ahd. 2. sg. opt. prät. namis; dagegen aber die als isolierte form wichtige ahd. 2. sg. wili, die nach Walde (S. 133) nicht gleich got. wileis gesetzt werden darf, sondern eine neubildung nach der 2. sg. präteriti starker verba wie bizzi usw. sien soll: eine ganz unglaublich annahme . . ." And further (p. 120): "Nach alledem kann ich nicht finden, dass die frage durch Walde gelöst ist. Wie sie zu lösen, ist freilich schwieriger zu sagen. Ich für meine person bin (im anschluss an Hirt, Beitr. 18,527) der meinung zugeneigt, dass jedes ursprünglich auslautende -s im nordischen lautgesetzlich zu r geworden, im westgermanischen aber abgefallen ist." Subsequent scholars seem to have agreed with Michels in rejecting Walde's theory. Those few who comment on the issue at all tend to reject Hirt as well, though they offer less than compelling reasons for so doing. Indeed, the question appears to have been not resolved but merely dropped: modern handbooks re-state Verner's position without even mentioning Hirt. I believe, however, that Hirt was essentially correct, and that the balance of evidence is in his favor. In the paragraphs which follow, I will review first the evidence which appears to counter Hirt's theory, next that which appears to support it.

As preface to my review of the evidence, I must emphasize the following several points. First, absolute finality must be kept strictly apart from protected finality. That is, the *-s or *-z of the second singular present indicative (< IE *-esi) or the o-stem genitive singular (< IE *-oso) is not here in question; only pre-Germanic final *-s will be considered. Secondly, evidence for original doublets exists, if at all, only in West Germanic.
Gothic devices final spirants and thus would mask the postulated distinction. North Germanic rhotacizes \(-z\), but not \(-s\), and thus ought to show the variation \(-r/-s\). However, North Germanic invariably shows \(-r\) for pre-Germanic \(-s\) in absolute finality. Third, no West Germanic dialect preserves both members of an original doublet ending. The argument for postulating \(*-s/\star-z\) doublets in absolute finality has always rested on the claim that certain West Germanic \(-s\)-endings reflect Germanic \(*-s\) (in contrast to Germanic \(*-z\)) because Germanic final \(*-z\) is lost in the West Germanic dialects. The crucial question, then, is whether these West Germanic final sibilant endings can be shown to derive necessarily from Germanic final \(*-s\). One may not merely assume this derivation without, in fact, begging the question; for the proposed existence of reconstructable \(*-s/\star-z\) doublets constitutes an empirical hypothesis the validity of which must be clearly demonstrated.

So far as I can determine, there are but six West Germanic endings which one scholar or another has sought to derive from Germanic endings with final \(*-s\). These are: 1) the Old Saxon and Old High German second singular present optative; 2) the Old Saxon and Old High German second singular preterit optative; 3) the Old Saxon consonant stem genitive singulars burges, nahtes, custes, and weroldes; 4) the Old Saxon and Old English o-stem masculine nominative plural; 5) the Old High German first plural present indicative; and 6) the pan-West Germanic second singular preterit indicative of weak verbs. In what follows, I consider these endings in the order set forth above.

As regards to Old Saxon and Old High German second singular
optative (both present and preterit), there is widespread agreement that \(-s\) in these forms is not original, but has been extended from the present indicative. Early statements of this analogical account are to be found in: W. van Helten, "Grammatisches [XXIII]" (PBB 17 [1893], p. 556); Hermann Hirt, "Grammatische Miscellen" (PBB 18 [1894], p. 528); Francis A. Wood, "Final \(-s\) in Germanic" (MLN 2 [1896], p. 369); and W. van Helten, "Grammatisches [LXXI]" (PBB 34 [1909], p. 139). The theory is supported in two ways. First, the Old English endings without final \(-s\) argue for \(*-z\) as the original West Germanic ending. Secondly, all the West Germanic dialects show asigmatic forms for the second singular present indicative of the verb 'will'. Thus Old English \(wilt\); Old Saxon \(wilt, wili, willis\); Old High German \(wili\). The present indicative of this verb was originally an optative. Old English and Old Saxon \(wilt\) show the influence of the preterit-present verbs and presuppose loss of final \(*-z\). Old Saxon \(willis\) (beside \(wili\)) shows regularization of the verb after the typical indicative pattern.(or simply replacement). As several scholars have pointed out, Old Saxon / Old High German \(wili\) cannot be the product of an analogical reformation. It is therefore the strongest possible evidence that the second singular optative in \(-s\) is a new creation in these two dialects.

That \(-s\) in Old Saxon \(burges, nahtes, custes,\) and \(weroldes\) reflects an original consonant stem genitive singular in Germanic \(*-z\) is a claim which apparently goes back to Hermann Paul. I have not, however, seen Paul's article myself and can rely only upon the following statement from W. van Helten, "Grammatisches [XXXIV]" (PBB 20 [1895], p. 513): "Paul hat in diesen Beitr. 6, 550 bei
aufstellung des satzes 'auslautendes $z$ fällt ab, $s$ bleibt' das $-s$
der as. genitive burges, nahtes, custee, weroldes als den erhaltenen
schlussconsonanten der alten endungen gefasst." Following this
passage, van Helten goes on to show that Paul's position vis-à-vis
the cited Old Saxon forms is completely untenable. In the words
listed, genitival $-s$ is analogical, stemming ultimately from the
$o$-stems, with the $i$-stems as occasional intermediary. Returning
thence to Paul's broader claim, van Helten appends the following
remarks (pp. 514-515):

Wenn die obige auffassung von custes, burges, etc. das richtige
trifft, wird eine der beiden von Paul für seine regel bei-
gebrachten stützen hinfällig. Und auch die andere, der ags.
as. nom. acc. pl. auf $-os$. $-as$ ist keine allzu sichere, weil
aofries. $-ar$ entschieden für die existenz eines wgm. vedischem
$-asas$ entsprechenden suffixes sprechen ... Indessen gibt es
zwei ander fälle, welche die erhaltung des $-s$ ausser zweifel
stellen: die endung für die 2. sg. des schwachen praet. ind.
$-tos$, $-dos$, $-des$ und ahd. $-mes$ der 1. pl. praes. ind.

The Old Frisian o-stem nominative plural in $-ar$ has been explained
as borrowing from North Germanic$^5$ and as a transfer from the $-es/-os$
stems,$^6$ though many scholars have concurred with van Helten in
deriving it from Germanic (or Ingvaeonic?) $^{*}-o泽$ . With this
plurality of theories, I believe one may safely conclude that Old
English $-as$, Old Saxon $-os$ do not necessarily derive from pre-
Germanic $^{*}-泽$ (Germanic $^{*}-泽$, as against $^{*}-öz$). If this is so, then
these endings cannot be used in support of a theory which postulates
doublet forms for pre-Germanic *-s in absolute finality.

Taking up the next form, I cannot agree with van Helten that the Old High German first plural present indicative in -mes is good evidence for the reconstruction of Germanic final *-s (vis-à-vis *-z). Even more so than the Ingvaeric o-stem nominative plural, this Old High German ending is an isolated problem form the origin of which is mysterious and frequently debated. Here I have not the space to review the many theories postulated to explain it. Rather, in place of such a review, the following axiom must stand: isolated problem forms cannot be used as evidence against some particular theory so long as they remain either isolated, or problematical, or both. In this instance, the theory under examination is Hirt's. While the Old High German ending may argue (weakly) in favor of doublets so long as no other hypothesis is at hand, once a second explanation is presented, forms whose origin and derivation are uncertain must be momentarily set aside, and the theories must be judged strictly on their ability to account for more clearly understood examples. Only then may the problem forms be reconsidered. In a judgement between the doublet theory and Hirt's hypothesis, Old High German -mes is simply irrelevant.

In support of original doublet forms, we seem to be left only with the West Germanic ending of the weak verb second singular preterit indicative. West Germanic very clearly shows an -s here, while North Germanic just as clearly shows an -r (< *-z). It is widely held that the attested indicative singular forms reflect Germanic *-am, *-es, *-et (rather than, e.g. *-o or *-omi; *-esi, *-ebi). This opinion appears to be based rather soundly on the
vocalic reflexes of the first person, and likewise upon the absence
of a dental in the third person. If the evidence of these endings
is admissable, as it seems to be, then the second person most
probably does reflect a final, originally unprotected, *-_s._
Unfortunately, however, the dental preterit is a Germanic innovation;
there are no Indo-European forms which are exactly parallel. For
this reason, the axiom cited above with respect to the Old High
German first person plural present indicative has some bearing here.
Of course, the second singular preterit indicative ending of weak
verbs is not an isolated form within Germanic; the problem is rather
that one cannot be absolutely certain of its derivation. Thus one
must always bear in mind that a non-high Germanic short vowel in
absolute finality is reflected in none of the attested Germanic
dialects. Its prior existence can only be postulated from a look
at comparable Indo-European forms or from the preservation of a
Germanic dental or nasal which is otherwise lost in absolute final­
ity. Neither vantage is available here. Thus one cannot ignore
the possibility that Germanic *-_s_ in the weak preterit second singular
indicative was protected by a final short vowel. A possible source
for this protective vowel is ready to hand in the strong preterit.
Since final nasals and final Indo-European *-_d_ are lost before the
loss of short vowels in absolute finality, the two preterits would
have had, at some time, the forms shown in Table Two.
<table>
<thead>
<tr>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st *-a</td>
<td>*-ä</td>
</tr>
<tr>
<td>2nd *-ta</td>
<td>*-es</td>
</tr>
<tr>
<td>3rd *-e</td>
<td>*-ê</td>
</tr>
</tbody>
</table>

Table Two

preterit indicative singular

In the weak forms, the dental is omitted because it is properly a tense marker and not a part of the endings. For the same reason, root ablaut is ignored in the strong forms. As the table shows, the pattern of the strong preterit indicative endings is V, CV, V; that of the weak preterit indicative V, VC, V. It is a simple matter to reconcile these patterns by reforming the weak second singular to *-esa paralleling strong *-ta (i.e. CV). Such a reformation gains in plausibility when one considers that the weak preterit plural is clearly modeled on the plural of the strong preterit.

Here I will not insist upon the above described reformation of the weak preterit indicative. Indeed, I will be the first to admit that, apparently, its validity can be neither demonstrated nor disconfirmed. This however is just the point: we can never know with certainty whether the weak preterit second singular indicative did or did not end in a final vowel prior to the loss of West Germanic *-*s/*-*z in absolute finality. Given this uncertainty, and the larger uncertainty of the dental preterit as a whole, one can hardly cite the West Germanic forms as clear and irrefutable evidence for the prior existence of Germanic *-*s/*-*z doublets in
absolute finality. Indeed, this single West Germanic ending is opposed not only by the \( \text{-r} \) (< \(*\text{-z}\)) of North Germanic, but by the uniform North-West Germanic \(*\text{-z}\) of virtually every other ending in which an \(*\text{-s}\) stood in pre-Germanic absolute finality. We have seen above that there are no compelling exceptions to this North-West Germanic regularity. It appears, therefore, that a case for reconstructable \(*\text{-s}/\text{-z}\) doublet forms from pre-Germanic \(*\text{-s}\) in absolute finality has yet to be clearly demonstrated.

Let us turn now to a consideration of Hirt's hypothesis. As Hirt himself recognized, the crucial forms for choosing between his theory and the doublet hypothesis are the originally monosyllabic words ending in pre-Germanic \(*\text{-s}\). If Verner's Law applied to spirants in absolute finality, and if monosyllabic words were stressed in pre-Germanic, then the reflex of the final spirant must certainly be \(*\text{-s}\). The North-West Germanic dialects are unanimous, however, in reflecting earlier final \(*\text{-z}\). Some have proposed that this \(*\text{-z}\) is due to weak (sentence) stress on the words in question, and that Verner's Law has remained inviolate. This may explain pronominal forms, if one grants cliticization, but the unanimity of the dialects in replacing strongly stressed by weakly stressed forms is then so striking that one may well prefer to accept a rule governed change of \(*\text{-s}\) to \(*\text{-z}\). Furthermore, weak stress does not seem an appropriate explanation for the nominative singular of nouns and numerals. Here again, one might well prefer a single phonological rule to a multiplicity of analogical restructurings. Relevant forms are listed in Table Three.
<table>
<thead>
<tr>
<th></th>
<th>Go.</th>
<th>ON</th>
<th>OE</th>
<th>OHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1st D. sg.</td>
<td>mis</td>
<td>mér</td>
<td>me</td>
<td>mir</td>
</tr>
<tr>
<td>2. 1st N. pl.</td>
<td>weis</td>
<td>vēr, vāer</td>
<td>we</td>
<td>wir</td>
</tr>
<tr>
<td>3. 2nd D. sg.</td>
<td>þus</td>
<td>þēr</td>
<td>þe</td>
<td>dir</td>
</tr>
<tr>
<td>4. 2nd N. pl.</td>
<td>jus</td>
<td>ēr, þēr</td>
<td>ge</td>
<td>ir</td>
</tr>
<tr>
<td>5. interr. N. sg. m.</td>
<td>hwas</td>
<td>—</td>
<td>—</td>
<td>hwēr, wēr</td>
</tr>
<tr>
<td>6. 3rd N. sg. m.</td>
<td>is</td>
<td>hann(&lt;-nR)</td>
<td>he</td>
<td>ēr</td>
</tr>
<tr>
<td>cf. 3rd G. sg. m.</td>
<td>is</td>
<td>hans</td>
<td>his</td>
<td>ēs</td>
</tr>
<tr>
<td>1st D.-A. pl.</td>
<td>uns(is)</td>
<td>óss</td>
<td>−us(ic)</td>
<td>uns, unsih</td>
</tr>
<tr>
<td>7. dem. N.-A. pl. f.</td>
<td>þōs</td>
<td>þāer</td>
<td>þā</td>
<td>deo, dio</td>
</tr>
<tr>
<td>8. &quot;one&quot; N. sg. m.</td>
<td>ains</td>
<td>einn(&lt;-nR)</td>
<td>ān</td>
<td>ein</td>
</tr>
<tr>
<td>9. &quot;two&quot; N. sg. f.</td>
<td>twōs</td>
<td>tuaer</td>
<td>twā</td>
<td>zwā, zwō</td>
</tr>
<tr>
<td>10. &quot;three&quot; N. sg. m.</td>
<td>*preis</td>
<td>þrīr</td>
<td>þriē</td>
<td>drī</td>
</tr>
<tr>
<td>11. &quot;cow&quot; N. sg.</td>
<td>—</td>
<td>kyr</td>
<td>—</td>
<td>kuo</td>
</tr>
<tr>
<td>12. &quot;sow&quot; N. sg.</td>
<td>—</td>
<td>sýr</td>
<td>—</td>
<td>su</td>
</tr>
</tbody>
</table>

**Table Three**

Germanic *-s/-z in monosyllables

In examining the forms listed, it is important to note that final *-z (<r) is preserved in Old High German monosyllables containing a short vowel, but lost in monosyllables containing a long vowel or diphthong. Except in the Old High German short monosyllables, Germanic *-z is lost everywhere in West Germanic. Particularly interesting are the Old High German third person pronominal forms, nominative ēr (<*ēz), genitive ēs (<*ēso). In the latter, the
spirant is preserved by reason of its protected position. The same explanation probably applies to the pronominal first person dative-accusative plural forms. Thus the geminate -s in Old Norse óss (beside ðss) guarantees a proto-form *unsiz (cf. Gothic unsis) for North-West Germanic. In West Germanic, *unsiz would regularly produce Old English us, Old High German uns by loss of the final *-z, followed by loss of unstressed *-i after a long syllable.

From the above, it would seem that North-West Germanic does not clearly support the reconstruction of original doublet forms but may argue instead for *-z as the one and only reflex of pre-Germanic *-s in absolute finality. Hirt, of course, skirted the issue of an *-s/*-z merger (or a change of *-s to *-z) in absolute finality, but such a rule may be justified, for North-West Germanic, by the agreement of Old Icelandic mér, Old High German mīr, and similar forms.

Two sorts of evidence from Gothic seem to point in the same direction. The first is evidence that phonemic final -z exists synchronically in Gothic; the second is evidence that this final -z must have developed relatively early in pre-Gothic, if not in proto-Germanic times.

Evidence for synchronic /-z/ in Gothic comes first of all from the loss of final [-s] in certain nominative singular forms of o- and i-stem nouns and adjectives. There appears to be universal agreement that this change followed the syncope of *a and *i and that the change occurred without exception after stems ending in -s or -ss. See, among others, R. Westphal, "Das Auslautgesetz des Gotischen," in Laut- und Formenlehre der altgermanischen Dialekt.
Most scholars have been content to state the loss of -s (or -z) after (s)s without considering its implications. However, Ronald Eugene Buckalew has demonstrated that there is useful information to be gleaned from the synchronic statement of this rule. In his 1964 University of Illinois Ph. D. dissertation, *A generative grammar of Gothic morphology*, Buckalew notes that Gothic simplifies final -ss to -s after long (or tense) vowels (p. 60). Thus one finds nominative singular *unweis* 'uneducated' (dative *unweissai*) beside nominative singular *gaqiss* 'consenting' (accusative plural *gaqissans*). In addition, there is a second rule in Gothic which deletes the nominative singular marker when that morpheme follows a stem ending in -s. Buckalew argues (p. 60) that the loss of the nominative singular ending -s/(-z) must precede the simplification of -ss after a tense vowel. The reason for this ordering appears in a comparison of the four nominative singular forms:

- **drus** (< drus + s/z) 'fall'
- **laus** (< laus + s/z) 'empty'
- **gaqiss** (< gaqiss + s/z) 'consenting'
- **unweis** (< unweiss + s/z) 'uneducated'

Unless there are two rules ordered as Buckalew describes, it is impossible to account both for the agreement of *drus* and *laus* over against *gaqiss* and for the difference between *gaqiss* and *unweis*. The interesting question which follows from all this is why a rule...
which produces e.g. *drus does not also produce e.g. *usstas from accusative singular usstass 'resurrection' (L 20.27)? The obvious answer, of course, is that drus comes from underlying drus + z or drus + s while usstass comes from underlying usstass + 0. The rule in question therefore either deletes final -z after s or final -s after a morpheme boundary after an s. The simpler statement would postulate underlying -z as the nominative singular marker, and this is Buckalew's choice. It follows as well that we are here dealing not with assimilation and cluster simplification but with out and out apocope.

There is, then, some synchronic morphophonemic evidence for underlying -z in absolute finality in Gothic. The question now to be asked is whether this synchronic state continues a Germanic condition or constitutes a Gothic innovation. In his Geschichte der gotischen Sprache (Berlin: de Gruyter, 1926), M. H. Jellinek discusses the alternation of Gothic b, d, and z with f, h, and s --the latter appearing in absolute finality. He writes (p. 56):

"Als Inlaut gilt die Stellung vor den vokalisch anlautenden enklitischen Wörtern ei, u, uh. Echtes s und h bleibt vor uh: 3. Sing. Ind. Prät. was-uh, stop-uh, gab-uh, vgl. 3. Pl. wesun, stopun, gebun; dagegen heisst es maiz-uh gegenüber mais ,mehr', vgl. maiza ,grösser'. Dies gibt ein Mittel an die Hand, um den Wert von -f, -h, -s zu bestimmen, denen keine Inlautsformen zur Seite stehen, weil sie den Auslaut von Partikeln bilden oder Flexionsendungen (bzw. Teile von solchen) sind." Jellinek then goes on to list numerous examples of voiced spirants before one or more of the enclitics. As he correctly surmised, the contrast between e.g. was-uh (beside was) and hwaz-uh
(beside hwas) requires us to postulate a synchronic Gothic contrast between /z/ and /s/ in absolute finality. The other Germanic languages lead us to believe that the voiceless spirants in was, stob, and geb are historically correct, and we have no reason to believe that these spirants first voiced then devoiced again in the early history of Gothic. Indeed, since Gothic tends to eliminate the spirant variation displayed by other Germanic languages in the preterit of strong verbs (cf. Old English cwæep 'he spoke', cwædon 'they spoke'), and since the preterit plural probably displayed a voiced spirant, we should find it very hard to explain the restoration of was, geb, and stob had these ever been *waz, *qeo5, and *sto5. Thus the voiceless spirants in was, etc. almost certainly go back to proto-Germanic. If we are now to explain synchronic Gothic /-z/ in e.g. the nominative singular of o-stem nouns or in hwaz(-uh) by a general voicing of final spirants, it is evident that this voicing must be placed, historically, prior to the loss of short non-high vowels in unstressed absolute finality since it was this apocope which led to was (< *wáse) etc.

This statement—that a voicing of final spirants must have preceded the loss of final short vowels—is, apparently, as close as we can come to proto-Germanic conditions from the Gothic evidence alone. Since, however, the other Germanic languages lead us toward the same conclusion, it is highly likely that the voicing of final spirants is a Germanic phenomenon and that the synchronic final -z which we must postulate for Gothic underlying forms is the reflex of an earlier, Germanic final *-z. The voiced spirant which appears, unexpectedly, in such pronominal genitive singulars as hwiz-ei,
biz-uh, anbariz-uh, hwarjiz-uh, and bizoz-ai is probably to be explained as an analogical restructuring. Thus A. M. Sturtevant in "Gothic bis : biz-ei, -uh; etc.," (MLN 55 [1940], pp. 599-601) writes: "There occurs in the Goth. paradigm only one case of phonetically [i.e. historically—AWJ] correct bis over against four cases of phonetically correct biz-. Now, when the -s in bis became medial in the compounds *bis-ei, -uh, the -s- was leveled to -z- after the pattern of medial z which occurred everywhere else in the paradigm (i.e., *bis-ei, -uh > biz-ei, -uh after the pattern of biz-os, -ai, -e, -o with or without the suffixes -ei, -uh). The analogical -z- in biz-uh was then transferred to the pronominal forms hwiz-uh, anbariz-uh, etc." [p. 600 --the emphasis is Sturtevant's].

The developments described by Sturtevant could only have been furthered by the facts that the nominative singular was phonemic -z and that the nominative and genitive both appeared as -s in absolute finality. No such paradigmatic forces could affect was, qeb, and stob, which therefore remain.

Taking the Gothic evidence as tentative but congruent with North-West Germanic, one arrives at the conclusion that *-z may be the pan-Germanic reflex of pre-Germanic *-s in absolute finality. What is more, this new Germanic *-z appears to have nothing whatsoever to do with the presence or absence of pre-Germanic accent on the nearest preceding vowel.

Two points seem to follow from these conclusions. First, the two versions of Verner's Law (general voicing of non-initial spirants with conditioned exceptions versus conditioned voicing) probably cannot be sorted out by an appeal to final spirants. Thus Prokosch
argues incorrectly when he states, regarding Boe's theory:
"Inherently, there is nothing impossible in this . . . But
the explanation falls short of explaining Verner's Law in the
case of final consonants, . . ." (A comparative Germanic grammar,
p. 62). In actuality, it seems, a choice between the two
theories ought to be based strictly on their ability to account
for spirant voicing in pre-Germanic medial position. Secondly, and
regardless of which voicing theory finally gains the field, one may
be able to postulate a change of final *-s to *-z in early Germanic
(or even pre-Germanic). It is possible that this change occurred
after the Germanic accent shift; that is, at a time when the voicing
of non-initial spirants had ceased to be phonetically conditioned.
If this is correct, then the earliest Germanic may well have shown
doublet endings as Verner (and Hirt) supposed. These doublets were
quickly erased, however, not by analogy, but by a general voicing
(or laxing) of all spirants in absolute finality. On the other hand,
it is possible that all final obstruents were voiced in pre-Germanic
times. Compare, in this regard, 2.11 where it appears that pre-
Germanic standardized *-d (for Indo-European *-t/*-d) in absolute
finality.

For our purposes here, what matters is that the absolute
necessity of reconstructing Germanic doublet forms for Indo-European
endings with final *-s has yet to be established. Accordingly, and
for my own convenience, I will reconstruct only Germanic *-z in
absolute finality. I believe that this reconstruction will not do
serious harm to the Gothic derivations presented later in this paper
and that it is, in any event, easily amended should amendment
prove necessary.
NOTES


2 F. de Saussure, in the work cited in note one, refers to this as "the old formulation of Verner's Law." I have found no reference earlier than R. C. Boer, *Oergermaansch Handboek* (Haarlem, 1924), P. 124. Boer seems to think his formulation is a new one. Roughly the same theory is put forth by M. Bartoli, "Zur Lex Verner," *ZVS* 67 (1942), pp. 102-111. Some version of the theory is followed,

3 See Krahe and Meid, Germanische Sprachwissenschaft, I, p. 126-127.

4 For example, W. van Helten, "Grammatisches [LV]," PBB 28 (1903), pp. 534-536.


7 Final -z is also lost after -r following a short vowel: wair 'man', baur 'son', anbar 'second', unsar 'our', etc. The loss of -z in stiur 'steer' is completely mysterious. Fidwör 'four' has no -z, as explained by R. C. Boer in his article, "Gotische rz," Neophilologus 6 (1920/1921), p. 232-233:
Indien dus de vorm was ontstaan uit *fidworez, zou men *fidwors wachten. Maar er is geen enkele reden, om een grondvorm *fidworez aan te nemen. fidwor staat, wat de buiging betreft, geheel op één lijn met de getallen 5-19; zij zijn indeclinabel en hebben daarnaast jonge vormen voor g. en d. naar de i-declinatie. Dit zijn meervoudsvormen; een corresponderende nominatief zou luiden *fidworeis. In het on. neemt fjórir vormen van de adjecitiva aan; het ohd. kent voor 4-12 naast ongedeclineerde vormen zulke naar de i-declinatie. Die niet gedeclineerde vorm fidwor behoeft dus volstrekt niet oorspronkelijk een meervoudsuitgang gehad te hebben. Vgl. ook lat. quatuor.

The loss or preservation of -z after r in Gothic has been much discussed. Summaries of earlier views are given in Boer and in Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik (1927; reprinted, Munich, 1960). My own view of the rule owes much to Ernst A. Ebbinghaus, "Gothic 1, r, m, n? the evidence reviewed," JEGP 69 (1970), 580-583.
SECTION 2.13
A word about Germanic forms

In agreement with W. P. Lehmann ("A definition of proto-Germanic; a study in the chronological delimitation of languages," Language, 37 [1961], pp. 67-74) and Elmer H. Antonsen ("On defining stages in prehistoric Germanic," Language, 41 [1965], pp. 19-36), I date the beginning of the Germanic period from the fixation of primary stress on stem-initial syllables. Joseph P. Voyles has argued convincingly that early Germanic still had an Indo-European five-vowel system (see section 2.1). In section 2.2 and elsewhere, I have argued that the distinction between long *o̞ and *å probably continued in unstressed syllables until the prehistoric dialectal period. It follows from this that I will reconstruct Germanic morphemes which distinguish *o̞ and *å.

At present, I can see nothing in the dialectal record to suggest that the short vowel *a - *o distinction was meaningful after the time when the labiovelar allophones were established. For simplicity's sake, I will therefore reconstruct only Germanic *a for Indo-European *a and *o. In so doing, I caution users of this study that the reconstruction may mask some developments, and that any peculiarities in the behavior or influence of short *a should immediately be checked against the distribution of *a and *o in pre-Germanic.
In section 2.12, I have argued that pre-dialectal Germanic perhaps showed only \*-*z_ for Indo-European \*-*s_ in absolute finality. Reconstructions given hereafter will therefore not include \*-*s/*-*z_ doublets in absolute finality. Nor will they show \*-*p/*-*o_ doublets for Indo-European \*-*t_ in absolute finality (see 2.11).

Some effects of these four major decisions about Germanic forms appear in the table of o-stem and a-stem noun endings given in Table One.

<table>
<thead>
<tr>
<th></th>
<th>o-stem</th>
<th>a-stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>-az</td>
<td>-a</td>
</tr>
<tr>
<td>A</td>
<td>-am</td>
<td>-am</td>
</tr>
<tr>
<td>G</td>
<td>-asa</td>
<td>-az</td>
</tr>
<tr>
<td>L</td>
<td>-ai</td>
<td>-ai</td>
</tr>
<tr>
<td>D</td>
<td>-öi</td>
<td>-ai</td>
</tr>
<tr>
<td>I</td>
<td>-ö</td>
<td>-ã</td>
</tr>
<tr>
<td>N</td>
<td>-öz</td>
<td>-az</td>
</tr>
<tr>
<td>A</td>
<td>-anz</td>
<td>-az</td>
</tr>
<tr>
<td>G</td>
<td>-öm</td>
<td>-öm</td>
</tr>
<tr>
<td>D</td>
<td>-am-</td>
<td>-am-</td>
</tr>
</tbody>
</table>

Table One

As explained above, these are not the earliest Germanic forms which might be reconstructed. Rather, I believe, they represent Germanic somewhat before the prehistoric dialectal period. It is this stage of Germanic which I will simply call 'Germanic' in the sections to follow.
CHAPTER THREE

Some morphological specifics

In Chapter One, I noted that much of the complexity in the study of Gothic final syllables was due to the bewildering number of incompatible proposals offered, over the years, to explain different subparts of the inflectional system. In Chapter Two, I focused on phonological problems in an effort to sift through some of the older proposals and to establish a reasonably secure phonological frame within which to sketch historical developments. Now I must turn to morphological problems—again to clear away dead wood; but more importantly, to establish a reasonably secure morphological starting point for future descriptions of the Gothic system.

In this chapter, I do not trace the development of each inflectional class as a class. Rather, my concern is to establish the probable Germanic morphemes and to determine, if possible, which Gothic endings are strictly phonological reflexes of Germanic forms and which are replacements or restructurings due to non-phonological processes. In establishing the Germanic forms I have worked back from the Germanic dialects and forward from Indo-European. The Germanic material I have reviewed critically and, where necessary, have reinterpreted without apology. The Indo-European material I have treated more gingerly. It is perhaps clear that reconsideration of controversial points in Indo-European would take us far afield.
from Gothic, and I have therefore relied on several handbooks—most heavily on Oswald Szemerényi's *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970)—to provide what I take to be the generally accepted Indo-European reconstructions. In most instances, I have presented the Indo-European forms as givens and have sought, where possible, to derive the Germanic forms therefrom.

For the convenience of those who wish to check the implications of material presented in Chapter Two, forms which are without controversy are tabulated, but rarely discussed, in what follows. Forms which are now regarded as well established, but which have been subject to debate in the past, are discussed somewhat more fully to show why alternative views ought to be rejected. Forms which are controversial even today receive the fullest treatment.

Since discussions of these still controversial elements are likely to be the most interesting parts of Chapter Three, it is tempting to pull them all together and to dispense with the more tedious review of known developments. Nonetheless, I have resisted this temptation for two reasons. First, the controversial elements are often to be explained by placing them within an inflectional or semantic system which, in order to be understood, must necessarily include well-known elements. Secondly, as with the phonological claims of Chapter Two, morphological arguments presented in Chapter Three have implications which the reader may wish to examine without having to turn to one or more reference works. In view of these considerations, it seemed best to arrange Chapter Three along traditional handbook lines, even though this decision entails a certain repetition of less than novel views.
SECTION 3.1

Nouns

In the subsections immediately to follow, I take up the major inflectional classes of Gothic nouns. Each subsection begins with a comparative chart tabulating Indo-European, Germanic, and Gothic endings. This is followed by a discussion of individual case forms, and finally by remarks on the subdivisions of the particular inflectional class. In the comparative charts, endings which seem to be replacements or non-phonological restructurings are enclosed in square brackets. References to earlier sections, particularly sections of Chapter Two in which phonological developments are discussed, appear in the right hand column. Forms about which there is no significant controversy have usually been omitted from the discussion of individual endings.
**SUBSECTION 3.1.1**

The o^-stem nouns; jo-stems and wo-stems

3.1.1 (a) The o^-stem nouns.

Below appear the Indo-European and Germanic forms from which the Gothic o^-stem inflection seems to be derived.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc. sg. N</td>
<td>-o-s</td>
<td>-az</td>
<td>-s</td>
</tr>
<tr>
<td>A</td>
<td>-o-m</td>
<td>-am</td>
<td>-Ø</td>
</tr>
<tr>
<td>G</td>
<td>-o-so</td>
<td>-asa</td>
<td>[-is]</td>
</tr>
<tr>
<td>L</td>
<td>-o-i &gt; oi</td>
<td>-ai</td>
<td>-a</td>
</tr>
<tr>
<td>D</td>
<td>-o-ei &gt; oi</td>
<td>-öi</td>
<td>-a</td>
</tr>
<tr>
<td>I</td>
<td>-o-eH₁ &gt; ō</td>
<td>-ō</td>
<td>-a</td>
</tr>
<tr>
<td>V</td>
<td>-e-</td>
<td>-e</td>
<td>-Ø</td>
</tr>
<tr>
<td>pl. N</td>
<td>-o-es &gt; ōs</td>
<td>-ōz</td>
<td>-ōs</td>
</tr>
<tr>
<td>A</td>
<td>-o-ns</td>
<td>-anz</td>
<td>-ans</td>
</tr>
<tr>
<td>G</td>
<td>-o-om &gt; ōm</td>
<td>-ōm</td>
<td>-e</td>
</tr>
<tr>
<td>I</td>
<td>-o-mis</td>
<td>D -amiz</td>
<td>-am</td>
</tr>
<tr>
<td>(pre-Gmc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neut. sg. NA</td>
<td>-o-m</td>
<td>-am</td>
<td>-Ø</td>
</tr>
<tr>
<td>pl. NA</td>
<td>-e-H₂ &gt; ā</td>
<td>-ā</td>
<td>-a</td>
</tr>
</tbody>
</table>
In the Indo-European forms, theme vowel and case marker are separated by hyphens. In the Germanic and Gothic forms, the thematic vowel is arbitrarily considered part of the inflection. Gothic forms are orthographic and assumed to be systematic phonetic. In Germanic, the ablative ending, Indo-European *-ōd, appears only in the adverbs, e.g. Gothic ḫabro 'from there' (see section 3.3 and compare section 2.2.3). Here I assume that the Indo-European es-stems have joined the o-stem inflection in Germanic times (compare section 2.5). No separate treatment of the es-stems will be offered.

Genitive Singular, Germanic *-asa.

There are three problems here: 1) the absence of *-j- in Germanic vis-à-vis its presence in Sanskrit -asya, 2) the quality of the Germanic theme vowel vis-à-vis the Gothic, and 3) the voicelessness of *-s-.

Attempts to explain the supposed loss of *-j-, either through assimilation to the preceding *-s- or by apocope, were made by, among others, H. Ebel, "Bemerkungen zur gotischen Declination," ZVS 4 (1855), p. 149; A. Kuhn, "Ueber einige genitive- und dativ-bildungen," ZVS 15 (1866), p. 429; B. Delbrück, "Die Declination der Substantiva im Germanische insonderheit im Gotischen," ZfdP 2 (1870), pp. 387-388; H. Paul, "Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4 (1877), p. 406-407; and, somewhat anachronistically, by Gustav Must, "The genitive singular of the o-stems in Germanic," Language 29 (1953), pp. 301-305. All run afoul of the facts that *-j- has not assimilated in e.g. nasjan 'to save'; that *-ss remains after

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short vowels in Gothic, as in e.g. *gaqiss 'consenting'; and that neo-final *-j appears as short -i in the io-stems, e.g. weina-
bası 'grape'. As many have noted, the *-so/*-syo ending is pro-
nominal in origin. Yet, had the ending been Germanic **-sia, one should certainly find then Gothic *bisi for bis. That we do not find this form, nor comparable forms in the other Germanic dialects, can only mean that the ending with *-j- was not inherited by Germanic.

This is hardly a new idea. In 1880, Hermann Moller observed:
tigung dem -šio die grossere Ursprünglichkeit zuzuschreiben, da im Germ. und Slav. sicher -so bestand, got bi-s, ahd. de-s, aksl. če-so. Diese Form scheint mir die allerursprünglichste zu sein." (p.132).
The alternation of *-o and *-yo in Indo-European is discussed by James Wilson Poulton in "Some Indo-European morphological alterna-
tions," Language 43 (1967), 871-882. There seems no reason to post-
ulate *-yo for pre-Germanic.
As regards the thematic vowel: a great many scholars have proposed an *-e/-a- doublet in order to explain the difference between e.g. Runic Godagas (Valsfjord, ca. 400) and Gothic dagis. Among those taking this position are: Wilhelm Streitberg, Urgermanische Grammatik, 4th ed. (1895; reprint, Heidelberg, 1974), p. 227; Alois Walde, Die germanischen Auslautgesetze (Halle, 1900), p. 120; R. C. Boer, Oergermaansch Handboek (Haarlem, 1924), p. 174; Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik 2nd ed. (1927; reprint, Munich, 1960), p. 107; Hermann Hirt, Handbuch des Urgermanischen, Teil II, Stammbildungs- und Flexionslehre (Heidelberg, 1932), pp. 34-35; Hans Krahe and Elmar Seebold, Historische Laut- und Formenlehre des Gotischen, 2nd ed. (Heidelberg, 1967), pp. 77; and Oswald Szemerenyi, Einführung in die vergleichende Sprachwissenschaft (Darmstadt, 1970), p. 169.

But the doublet probably cannot be attributed to Germanic nouns. As G. H. Mahlow observed in 1879 — Die langen Vocale AEO in den europaeischen Sprachen, p. 112: "Die Vertheilung der Doppelformen im Genitiv is nicht zweifelhaft; die Nomina hatten -as, and. dags ags. dages alts. ahd. dagas = *IPPYO, die Pronomina -is, gt. bis and. bess alts. thes ahd. des das vermittelt durch die Adjectiva auch in die Nominalflexion eindrang." The same conclusion was reached by D. Gary Miller after a very thorough study which forms part of his unpublished Harvard Ph. D. dissertation, Studies in some forms of the genitive singular in Indo-European (1969), pp. 241-280. On page 241, Miller notes that "Germanic is the only area for which *-es-(y)o has been considered necessary [in the thematic genitive --AWJ]." He then demonstrates that there is little evidence for
reconstructing this form even in Germanic. Properly understood, the attested Old English forms compel the reconstruction of *-oso (generalized to the pronouns) (p. 251). Frisian forms do not oppose this reconstruction, but lend some slight support (p. 253). Forms in -as (< *-oso) are, of course, directly attested in Runic inscriptions. Old Saxon agrees with Icelandic and Gothic in supporting pronominal *-eso (pp. 256-257), though it offers evidence neither for nor against nominal *-oso (p. 260). Old Frankish dialects support an original nominal genitive in *-oso (p. 265), as do Old Alemannic and Old Bavarian (p. 267). On the thematic by-forms in *-eso, Miller notes (pp. 276-277): "... it can scarcely be an accident that Gothic and Old High German, the only two Germanic dialects to show an unambiguous [thematic — AWJ] genitive singular in *-es, are also the only two Germanic dialects that show universal agreement of the pronominal and adjectival desinences . . ." Compare Mahlow's view, quoted above. On page 279, Miller concludes: "There is no reason to assume an inherited genitive singular in *-es(y)o for Germanic any more than for any other Indo-European language." Miller's view was accepted for Old High German by Hans Henrich Hock, "On the phonemic status of Germanic e and i," Issues in linguistics: papers in honor of Henry and Renée Kahane, ed. by Braj B. Kachru et. al., (Chicago, 1973), pp. 335-336. See also Charles-James N. Bailey, Inflectional Pattern of Indo-European Nouns, University of Hawaii Working Papers in Linguistics, vol. 2, no. 1 (Honolulu, Jan. 1970), pp. 38, 39. The synchronic rules postulated by Pedro Beade in Gothic Phonology: A Generative Approach (Cornell University Ph. D. dissertation, 1971)
clearly reflect the newness of genitival -is in the masculine and
neuter o-stems (see Beade, p. 128).

In *Handbuch des Gotischen* (Munich, 1968), Wolfgang Krause
reconstructs Germanic *dag-e-zo* as the proto-form of Gothic dagis.
His evidence for the voiced *-z*—is Gothic anbariz-uh and similar
pronominal genitive singulars with enclitic particles (p. 150).
Unfortunately, no other Germanic dialect—significantly, not even
Runic—supports medial *-z* for this ending. Thus Friedrich Kluge—
*Urgermanisch* (Strassburg, 1913)—noted: "Das s ist durchaus
stimmlos: . . .vgl. run. Gödagas; an. dags ahd. tages. Allerdings
zeigt das Gotische bei angefügtem Enklitikon vielmehr z (an Stelle
von s) in biz-ei biz-uh hwiz-uh anbariz-uh; dieses z ist aber
vielleicht sekundär für s eingetreten." (p. 194). A related point
is made by Ernst Kieckers in *Handbuch der vergleichenden gotischen
biz-uh 'dieses', biz-ei 'dessen' (Relat.) weisen, nur dass hier z
eigentlich nicht berechtigt war, da idg. *te-so* betont wurde." In
fact, the explanation of anbariz-uh etc. offered by A. M. Sturtevant
and cited above in Section 2.12 makes it all but certain that Gothic
-z in the genitive is a replacement of earlier -s-. That is, no
Germanic dialect supports the reconstruction of earlier *-ozo*.

As to an explanation for the invariability of *-s* in the
o-stem genitive singular, one may wish to follow Wilhelm Streitberg,
*Urgermanische Grammatik*, 4th ed. (1895; reprint, Heidelberg, 1974),
p. 227: "Auffallend ist, dass das s der Endung immer stimmlos
bleibt. Da nicht mit Möller an einen lebendigen Akzentwechsel
innerhalb des Paradigmas der e/o-Stamme zu denken ist, muss das
durchgehende -s zum guten Teil auf analogischer Neubildung beruhen. Pronomina und endbetonte e/o-Stämme (Adjektiva) haben das Muster abgegeben." D. Gary Miller—Studies in some forms of the genitive singular in Indo-European, pp. 274-276 —has plausibly suggested a grammatical gender distinction which arose in the pronouns [as masculine-neuter *bes(a) (with *-s) beside feminine *baizaz(with *-z)] and got extended to the nouns by way of the adjectives. (On the pronominal forms, see 3.2.2 below.) For the present study, the explanation of *-s- is less important than the unanimity of all the dialects in supporting its reconstruction. If *-s- is analogical rather than phonological, then the restructuring occurred in early Germanic prior to the pre-dialectal stage upon which the work is based (see 2.13).

Locative Singular, Germanic *-ai.

The ending *-ai is reflected in all the North-West Germanic dialects. That it also appears in Gothic has been argued above in Sections 2.6 and 2.7. The contrary view, that *-ai cannot be reflected in Gothic, appears most clearly in M. H. Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), p. 102:


From the same evidence, James W. Marchand concluded that *-ai could not possibly be reflected in Gothic a-stem dative -a — "Notes on the origin of some Gothic inflectional endings," MLN 72 (1957), pp. 108-109. In view of sections 2.6 and 2.7, however, there can be little doubt that the alternative explanations of optative -ai offered by Jellinek are to be preferred. At present, I can see nothing to oppose the claim that unstressed, non-nasal *-ai monophthongized in pre-Gothic absolute finality, but remained, for a time, diphthongal when not in absolute finality (as in the optative).

Dative Singular, Germanic *-öI.


On Germanic *-öI in Gothic, see Section 2.7.

Streitberg, Urgermanische Grammatik, pp. 227-228, denied that Germanic *-öI could be reflected in Gothic -a since the same ending
(actually \( *-\ddot{a}i \)) was preserved in the \( \ddot{a} \)-stems as \(-ai\). Thus the Gothic \( o \)-stem dative must be an instrumental. The same opinion appears in R. Bethge, "Deklination des Urgermanische," in Laut- und Formenlehre der altgermanischen Dialekte, ed. by Ferdinand Dieter (Leipzig, 1900), pp. 537-538; in R. C. Boer, Oergermaansch Handboek (Haarlem, 1924), pp. 174-175; and in many other references. The argument holds only so long as one assumes a very early merger of final \( *-\ddot{oi} \) and \( *-\ddot{ai} \). For reasons which appear in Sections 2.2 and 2.7, I believe that this assumption is both unnecessary and incorrect.

Instrumental Singular, Germanic \( *-\ddot{o} \).

An Indo-European ending \( *-\ddot{o}(H) \), here given as \( *-\ddot{o} \), is reconstructed by Bailey, Inflectional Pattern of Indo-European Nouns, p. 69. An ablaut variant, \( *-\ddot{e} \), is reconstructed by Szemerényi--Einführung in die vergleichende Sprachwissenschaft, pp. 168-169--primarily on the evidence of Gothic hwamme-h (I --better hwe), but seems otherwise unsupported in the \( o \)-stems. Presumably the \( *-\ddot{e} \) form is alien to the \( o \)-stem nouns, though characteristic of, for example, the pronouns and root stem nouns --Szemerényi, pp. 148-149, Bailey, pp. 66-70. On the seeming preservation of instrumental \( *-\ddot{ed} \) in Greek (and Latin) adverbial forms, compare Bailey's remarks on the ablative singular (p. 52): "It seems likely that the ablative case began as an adverb (directional) which first became a distinct case in the pronominal declension. From there it got into the \( vo \) declension of nouns probably in fairly late Proto-Indo-European. The origin of the ablative suggested here would account for the ending \( *-\ddot{ed} \) which is
often found in place of expected *-o^d in adverbs, since stem vowel 
\(\text{\textdegree}\) is often found . . . in the pronominal adverbs." (italics 
added). That is, there is no extra-Germanic evidence to support 
an o-stem instrumental in **-\(\text{\textdegree}\), though there is some reason to 
epect an *-o/*-\(\text{\textdegree}\) dichotomy between nouns and pronouns. It is 
this dichotomy to which Bailey refers in his remarks on the ablative. 
Compare also the clear Germanic distinction between nominal *-oso, 
pronominal *-eso in the genitive singular.

A pronominal instrumental in *-\(\text{\textdegree}\) is reflected in Gothic \textit{be}, 
\textit{hve}; Old Icelandic \textit{bi}, \textit{hvi}; and probably Old English \textit{by}, \textit{hwy}—
see Hermann Paul, "Zur Geschichte des germanischen Vocalismus," 
auslautende Instrumentale von Pronominalstämmen]," IF 22 (1907/1908), 
pp. 264-266. Old High German \textit{diu}, Old Saxon \textit{thiu}, is rather clearly 
from the same source (*be > *\(\text{\textdegree}\)i), renewed with -u (from nominal *-\(\text{\textdegree}\)). 
A nominal instrumental in *-\(\text{\textdegree}\) is reflected only in a few early Old 
English forms (see Section 2.6 and compare Section 2.8). In contrast, 
the nominal instrumental in *-\(\text{\textdegree}\) is well attested in Old High German 
and Old Saxon; while pronominal *-\(\text{\textdegree}\) forms appear to be secondary 
and limited to the interrogative pronoun—see van Wijk and compare 
Sections 2.10 and 3.2.2 on the similarity of the interrogative and 
adjectival declensions. Though the matter needs more study in the 
West Germanic dialects, a preliminary view of the Germanic evidence 
seems to find it congruent with the Indo-European material. Thus I 
reconstruct original *-\(\text{\textdegree}\) for the o-stem instrumental singular and 
reserve *-\(\text{\textdegree}\) for pronominal forms.
Vocative Singular, Germanic *-e (?)

The zero ending appears only in Gothic skalk 'servant' and hiudan 'king'—see Wolfgang Krause, Handbuch des Gotischen (Munich, 1968), p. 151. The ending *-e is assumed for Germanic only on the basis of Indo-European evidence—see Szemerényi, Einführung, p. 168; Bailey, Inflectional Pattern, p. 27. The Germanic form could also have been *-a, though there is no present reason to postulate a deviation from the Indo-European pattern.

Masculine Nominative Plural, Germanic *-ōz.

On Indo-European *-ōs, see Szemerényi, Einführung, p. 170; Bailey, Inflectional Pattern, pp. 78-80. The Indo-European form is not controversial. On Germanic *-ō, see Section 2.2; on Germanic final *-z, Section 2.12. As noted by M. H. Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), pp. 102, 103, and by Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik (1927; reprint, Munich, 1960), pp. 107-108, the Gothic ending might also reflect a Germanic ending *-ōsez/*-ōzez—compare Section 2.12. Since it appears to be the case that Old High German cannot reflect the longer ending, I tentatively consider *-ōsez/*-ōzez a post-Germanic innovation characteristic of Ingvaeonic. On Old High German, see Wilhelm Braune and Walther Mitzka, Althochdeutsches Grammatik, 12th ed. (Tübingen, 1967), p. 182. The central question—whether reformation of the original ending is more likely to have occurred in Old High German or in Old English-Old Frisian-Old Saxon—cannot be answered within the limits of the present study. (On the possibility of Germanic *-ōz in this form, see the Appendix.
following Chapter Four and compare Section 2.2.5.)

Genitive Plural, Germanic *-om.

On the Indo-European ending, see Krahe, *Indogermanische Sprachwissenschaft*, II, p. 27; Szemerényi, *Einführung*, pp. 170-171; Bailey, *Inflectional Pattern*, pp. 85 ff. On Germanic *-o-*, see Section 2.2; on *-m*, section 2.10. An ablaut variant in *-e- has sometimes been postulated to explain the Gothic reflex. That this is unnecessary and, indeed, unlikely, has been argued in Section 2.3.

Dative Plural, Germanic *-amiz.

The shape of the Germanic morpheme has been well established for some time. In 1853, R. Westphal noted, "Die endung des dativ plur. war im germanischen ursprünglich mis, entsprechend den litauischen instrum. plur. rankōmis, avimis, sunumis." --"Das Auslautgesetz des Gotischen," ZVS 2, p. 172. Westphal's evidence is repeated by B. Delbrück, "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," ZfdP 2 (1870), p. 389: "Aus dem auslautgesetz folgt, dass das m noch eine silbe oder einen consonanten hinter sich gehabt haben muss, sonst hätte das a schwinden müssen. Einen solchen consonanten nun weist das altnordische noch auf in tveimr und primr. Es folgt also, dass m zunächst auf *ms zurückgeht. Genau dies suffix zeigt nun der litauische dativ: vilkams, gleich got. vulfam aus *vulfams."

West Germanic evidence for final *-z_ was set out by Rudolf Much, "Germanische Dative aus der Römerzeit," ZfdA 31 (1887), p. 356:
"Wie aus dem vorgesetzten matronis sich ergibt, sind Vatvims und Aflims dative plur. eines weiblichen eigennamens. Das gegenüberstehende matronis Vatviabus, matronis Afliabus bietet die entsprechende lateinische casusform." In these forms, -s is presumably the only symbol available to represent final *-z. Gustav Burghauser's assumption of an accented **-mis is hardly reasonable --Die germanischen Endsilbenvocale, Sonderabdruck aus dem XII Jahresberichte der deutschen Staatsrealschule in Prag-Karolinen-thal, (Vienna, 1888), p.8.

It has been pointed out by both W. Brandenstein, "Die idg. Lautgruppen ms und ns," in Studien zur indogermanischen Grundsprache; Arbeiten aus dem Institut für allgemeine und vergleichende Sprachwissenschaft, ed. by W. Brandenstein (Vienna, 1952), p. 10, and by Edgard C. G. Polome, "Notes on the reflexes of IE /ms/ in Germanic," RBPH 45 (1967), pp. 800-826, that a tautosyllabic cluster *-(a)mz cannot have been inherited by Germanic from Indo-European. In his 1870 study, Delbrück had claimed that the vowel lost from between *m and *z was, in Germanic, either *a or *i (p. 390). A plea for *-i- was entered by E. Sievers, "Zur Accent- und Lautlehre der germanischen Sprachen," PBB 5 (1878), p. 159:

... got. dagam etc. ist mit Zimmer, ostg. und westg. 8 f. als vertreter von *dagamiz zu betrachten, der form des instrumentalis. Man vergleiche die 1. pl. des verbums, die doch ebenfalls -miz, wenn auch mit secundärem i, als endung voraussetzt. Bei einsilbigem stamm sollte freilich die endung -iz länger geblieben sein, und ich glaube sie ist es, vgl.
nord. *tveim(r), brimr; dass sie speciell i enthielt, glaube
müssen, welche formen dem älteren ags. fast ausschliesslich eigen
sind; erst später treten unter dem einflusse von ha, bāra (d.h.
beim artikel nom. gen. und acc. aller geschlechter des plurals)
und twā die nicht umgelauteten formen hām, twām auf. In den
übriigen fällen muss die masse der mehrsilbigen die wenigen
zweisilbigen formen überwältigt haben . . .

From an examination of Old English and Old Frisian pronominal
forms, Richard Loewe concluded that both a dative plural in *-muz
or *-moz and an instrumental plural in *-miz were reconstructable
for proto-Germanic—"Der germanische Pluraldativ," ZVS 48 (1918),
76-99. However, in that the analogical forces described by Sievers
cannot be discounted, Loewe's evidence provides a much better case
for *-miz than for *-maz. In fact, there would seem to be no
compelling evidence for the reconstruction of *-maz.

Here I would also note that Walter Petersen has reconstructed
*-bhi(s) / *-mi(s) as the oldest dative-ablative-instrumental plural,
beside which *-bhos and *-mos forms developed from the genitive-
ablative singular in *-os --"Hittite and Indo-European nominal
plural declension," AJP 51 (1930), pp. 263-266. Compare also Louis
H. Gray, "On Indo-European noun declension, especially of -o- and
of Indo-European (Heidelberg, 1964), Jerzy Kurylowicz has noted that
Indo-Iranian -bhis and -bhyas are probably both enlargements of
*-bhi. (p. 197). I see no present reason to suppose that pre-
Germanic once developed a form comparable to *-bh(y)os which it

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subsequently lost.

Taking *-amiz as the Germanic form, there remains the problem of its development to Gothic -am. On *-a-, not *-o-, see Section 2.1; on the loss of *-i-, Section 2.5. As regards *-z: Polomé has assumed that Gothic paralleled the North Germanic developments *-miz > -mR > -mm > -m (1967, p. 808). However, already in 1918 Loewe had compared Gothic brim, Old Icelandic brîmr to show that the loss of *-z was an independent Gothic rule—at least after stressed syllables (pp. 93-94). That the same holds true after unstressed syllables would appear from the Runic dative plurals borumr and gestumr (Stentöften stone, ca. 650 AD)—see Wolfgang Krause, Die Sprache der urnordischen Runeninschriften (Heidelberg, 1971), number 91; Elmer H. Antonsen, A Concise Grammar of the Older Runic Inscriptions (Tübingen, 1975), number 119. Thus there is no proof at all that Gothic followed the same steps as North Germanic. For the moment, we can postulate only the steps: Germanic *-amiz > pre-Gothic *-amz > Gothic -am. Whether or not there was an intermediate stage, *-amm, remains to be determined. There seems to be no evidence for it in the dative plural.

Neuter Nominative-Accusative Plural, Germanic *-ã.

3.1.1 (b) The jo- and wo-stem nouns.

In Indo-European and Germanic, the jo- and wo-stem nouns took the same endings as the o-stems, and in most Germanic grammars the three are considered but a single class with slight internal variation. In Gothic, however, it is not immediately possible to view all the jo-stems as simply a kind of o-stem noun. The masculine jo-stems, for example, have developed a new nominative singular ending, -is, which sets them apart from the o-stems proper (nominative -s); and the neuter nouns behave irregularly with respect to Sievers' Law in a way which suggests that they, too, may form a separate inflectional class. I have noted above (Section 2.9.2) that the masculine jo-stems are no longer a productive class, while the neuter jo-stems have retained their productivity—at least into Germanic. These facts I have correlated with the susceptibility of the two classes to Sievers' Law, and it is this correlation, I believe, which enables us to separate the inflections.

Synchronically, I would suggest that the (unproductive) masculine jo-stems are, in a sense, primary nouns not characterized by a separable stem formant. They take the endings shown below:

<table>
<thead>
<tr>
<th></th>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.</td>
<td>-is</td>
<td>-os</td>
</tr>
<tr>
<td>A</td>
<td>ø</td>
<td>-ans</td>
</tr>
<tr>
<td>G</td>
<td>-is</td>
<td>-e</td>
</tr>
<tr>
<td>D</td>
<td>-a</td>
<td>-am</td>
</tr>
</tbody>
</table>
These endings are identical to the o-stem forms except in the nominative singular. Selection of the special nominative is conditioned by the fact that the (actual) noun stem ends in -j. That is, we may consider the o-stems and the masculine jo-stems a single class if we merely state that the o-stem nominative singular masculine ending is -is after stems ending in j, -s otherwise.

The (productive) neuter jo-stems are not primary nouns, but—as their productivity indicates—nouns with a separable stem formant, -j. We can indicate this fact by writing +j. As noted above (2.9.2), it is perhaps the boundary before the separable formant which blocks the application of Sievers' Law in many long-stem neuter jo-nouns. The +j nouns take the o-stem endings as given below:

<table>
<thead>
<tr>
<th>Sg.</th>
<th>Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>-ø  -a</td>
</tr>
<tr>
<td>A</td>
<td>-ø  -a</td>
</tr>
<tr>
<td>G</td>
<td>-is -e</td>
</tr>
<tr>
<td>D</td>
<td>-a  -am</td>
</tr>
</tbody>
</table>

In a sense, then, the +j nouns are also o-stems, but secondary in nature.

Here now is the situation in synchronic Gothic. There is a large class of primary o-stem nouns which includes both masculines and neuters. Within this class is a subclass of masculine nouns which take a special nominative singular ending. This subclass contains nouns whose (actual) stem ends in j. There is no corresponding class
of primary neuter nouns with (actual) stems ending in \( j \). Beside these primary \( o \)-stem nouns is a large class of secondary \(+j-o\)-stem nouns, all of which are neuter. There is no corresponding class of masculine nouns.

For the sake of explication, let us consider the formant \(+j\) a part of the inflectional endings—as, indeed, it is at a certain level of analysis. We may now contrast the two (historical) sets of \(+j\)-stem endings as shown below:

<table>
<thead>
<tr>
<th>Masculine</th>
<th>Neuter</th>
</tr>
</thead>
<tbody>
<tr>
<td>-is</td>
<td>-j</td>
</tr>
<tr>
<td>-Ø</td>
<td>-j</td>
</tr>
<tr>
<td>-is</td>
<td>-jis</td>
</tr>
<tr>
<td>-a</td>
<td>-ja</td>
</tr>
<tr>
<td>-os</td>
<td>-ja</td>
</tr>
<tr>
<td>-ams</td>
<td>-ja</td>
</tr>
<tr>
<td>-e</td>
<td>-jê</td>
</tr>
<tr>
<td>-am</td>
<td>-jam</td>
</tr>
</tbody>
</table>

Bearing in mind that the masculine endings are added only to stems ending in \( j \), one can see easily that the phoneme /\( j \)/ plays a pivotal role. In the masculines, it is part of the stem; in the neuters, part of the endings.

I believe it is also easy to see how the neuters could be (and are being) reanalyzed. Certainly in the short stems, the surface forms could be analyzed as above (\(-jis\), \(-ja\), etc.); but they could also be viewed as simple \( o \)-stems, with endings added to (actual) stems in \(-j\), paralleling the masculine (primary) subclass \(-is\),
-a, etc.). That this reanalysis is in fact underway in synchronic Gothic is argued by the variability of the long-stem neuter j-inflection, e.g. andbahtjis (+jis) versus andbahteis (-is). This suggests, of course, that the neuter jo-stems are losing their productivity---their status as a separate class---and are being assimilated to the dominant o-stem inflection. Unfortunately, we cannot verify this implication since we lack access to significant amounts of Gothic after the time of Wulfilas. Nonetheless, the analysis just presented seems to be a plausible interpretation of the data.

Turning now to the (historical) wo-stems, we may simply state that, synchronically, they are o-stems with (actual) stems ending in -w to which are added the o-stem endings. (For historical developments and the synchronic interpretation of orthographic w, see Section 2.9).
### SUBSECTION 3.1.2

The $\ddot{a}$-stem nouns; $\dddot{a}$-stems and $\dddot{u}$-stems

#### 3.1.2 (a) The $\ddot{a}$-stem nouns.

The table below gives the Indo-European and Germanic forms which lie behind the Gothic endings of $\ddot{a}$-stem nouns.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg. N $-\text{eH}_2$</td>
<td>$\ddot{a}$</td>
<td>$\ddot{a}$</td>
<td>2.2; 2.4</td>
</tr>
<tr>
<td>A $-\text{eH}_2$-$m$</td>
<td>$-\dddot{a}m$</td>
<td>$-\dddot{a}m$</td>
<td>2.2; 2.4; 2.10</td>
</tr>
<tr>
<td>G $-\text{eH}_2$-$os$</td>
<td>$-\dddot{a}s$</td>
<td>$-\dddot{a}z$</td>
<td>2.2; 2.12</td>
</tr>
<tr>
<td>L $-\text{eH}_2$-$i$</td>
<td>$-\dddot{ai}$</td>
<td>$-\dddot{ai}$</td>
<td>2.8</td>
</tr>
<tr>
<td>D $-\text{eH}_2$-$ei$</td>
<td>$-\dddot{ai}$</td>
<td>$-\dddot{ai}$</td>
<td>2.8</td>
</tr>
<tr>
<td>I $-\text{eH}_2$-$\text{eH}_1$</td>
<td>$\dddot{a}$</td>
<td>$\dddot{a}$</td>
<td>2.8</td>
</tr>
<tr>
<td>pl. N $-\text{eH}_2$-$es$</td>
<td>$-\ddot{a}s$</td>
<td>$-\ddot{a}z$</td>
<td>2.2; 2.12</td>
</tr>
<tr>
<td>A $-\text{eH}_2$-$ms$</td>
<td>$[-\ddot{a}s]$</td>
<td>$-\ddot{a}z$</td>
<td>2.2; 2.12</td>
</tr>
<tr>
<td>G $-\text{eH}_2$-$om$</td>
<td>$-\ddot{a}m$ (?)</td>
<td>$-\ddot{a}m$</td>
<td>2.3</td>
</tr>
<tr>
<td>I $-\text{eH}_2$-$mis$</td>
<td>$-\dddot{am}$</td>
<td>D $-\dddot{am}$</td>
<td>3.1.1 (a)</td>
</tr>
</tbody>
</table>


An ablative singular, Germanic *-at, was postulated by Hermann Paul—"Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4 (1877), pp. 453, 454, 458. As pointed out by, among others, G. H. Mahlow, Die langen Vocale AEO in den europaeschen Sprachen (Berlin, 1879), p. 51, the form is groundless. In the ā-stems, the genitive and ablative singular shared a single ending, *-ās.

Accusative Singular, Germanic *-ām.

Bailey reconstructs a syllabic nasal for early Indo-European. Whether he is right or not, by Germanic times the ending must have been *-ām, as reconstructed in all the standard handbooks. On Germanic *a, see Sections 2.2 and 2.4; on *-m, Section 2.10.

The Gothic ending has been surprisingly controversial. In 1877, H. Osthoff ("Etymologisches, lautliches und grammatisches," ZVS 23, p. 90) and H. Paul ("Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4, pp. 339-340) suggested that the original accusative had been replaced by the nominative ending in Gothic. They were answered by G. H. Mahlow (Die langen Vocale AEO in den europaeschen Sprachen [Berlin, 1879]), who wrote (pp. 56-57): "Man hat das gotische giba nicht als Accusativ anerkennen wollen und hat Uebertragung aus dem Nominativ angenommen, wie im Altnordischen. Dem wider-sprechen allein schon die vorliegenden Formen des Gotischen. Wenn die Accusative giba, sibja nach den Nominativen giba, sibja gebildet sind, was sollen
In 1891, M. H. Jellinek defended the replacement theory (Beiträge zur Erklärung der germanischen Flexion, p. 8), arguing that *bandja* (accusative) could be modeled on *sibja* (accusative) which in turn is from *sibja* (nominative). But, as noted by Hermann Hirt, had the reformation gone as Jellinek described, one would expect it to have effaced *bandi* (nominative)—"Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen; zweiter Teil, die schleifende Betonung im Germanischen und die Auslautgesetze," IF 1 (1892), p. 202.


In 1972, Thomas L. Markey also correctly noted that the rule "*-am > -au is devoid of empirical support" — "Gothic imperatives in -au," Studia Linguistica 26, p. 42. It will be shown below in the discussion of optative and imperative forms that the Gothic au-endings most probably reflect Germanic *-au — not *-am. At present, therefore, I can see no reason to doubt that the Germanic ending is directly reflected in Gothic -a.

Genitive Singular, Germanic *-az.

The only debate about this ending has centered on the question of whether the vowel was bimoric or trimoric. For reasons which appear in Section 2.2, I believe this question is pointless. On Germanic *-z, see Section 2.12.

Nominative-Accusative Plural, Germanic *-az.

Bailey gives his reasons for reconstructing a nasal in the accusative on page 84 of his study. Here I follow Szemerényi and many others in postulating that the accusative and nominative were
homophonous already in pre-Germanic times. On Germanic *ā, see Section 2.2; on *-z, Section 2.12.

West Germanic forms appear to reflect two different endings (*-ō- and *-ā-). Thus nominative and accusative appear as -ō in Old High German pronouns and adjectives, but as -ā in nouns. Non-West Saxon Old English shows -e (< *-āz) for both endings in nouns, adjectives, and pronouns; while late West Saxon shows -a (< *-ōz). Early West Saxon nouns show -a for the nominative and accusative, with -e forms also appearing in the accusative.

Hirt (1892, p. 214) stressed the fact that -o endings are limited to the adjectives and pronouns in Old High German (rare nominal -o endings in Alemannic can probably be discounted). Since the strong adjectives show pronominal endings in oblique forms, it is likely that the Old High German -o endings have their origin in the pronouns. Most probably they are to be explained, with Hirt, as due to a historically correct demonstrative in *do (< *hoz) with *ō for *ā due to the early merger of *ō and *ā in Germanic stressed syllables. (Compare the lengthy discussion in Alois Walde, *Die germanischen Auslautgesetze*, Halle, 1900, pp. 32-53 and see below Subsection 3.2.2 nominative-accusative plural). In Old High German, *doō* was later reformed to diōō, with ō from oblique case forms (an extension of the admixture of demonstrative and anaphoric pronominal inflections—see 3.2.2). That -o forms are limited to the pronominal (-adjetival) declension indicates that nominal -a is probably historically correct (-ā for -āz in unstressed position).

In comparison with Old High German, late West Saxon -a may represent complete extension of the properly monosyllabic -a (< *-ōz).
At any rate, non-West Saxon -e is historically correct for *-az. The early West Saxon distinction (-a in nominative and accusative, -e only in accusative) is difficult to explain by extension alone—compare H. Osthoff, "Gab es einen Instr. Sing. auf -mi im Germanischen?" IF 20 (1906/1907), p. 177, note. A distinction modeled on the singular was suggested above in Section 2.2. If, in the course of extension, *-o(z) and *-a(z) forms were in competition in pre-West Saxon, the singular forms (*-o nominative, *-a accusative) might well have exerted some influence on their distribution.

Though the West Germanic facts are complicated, they need not make us doubt the Germanic forms. There is no firm evidence for a Germanic distinction between the nominative and accusative plural of a-stem nouns. Both appear to have been *-az, which is unambiguously retained in Old High German nominal -a.

Dative Plural, Germanic *-amiz.

The Germanic form is to be compared with the Indo-European instrumental plural. See Subsection 3.1.1 (a) for further discussion.

3.1.2 (b) The ja-stem and wa-stem nouns.

The ja-stem nouns with short stem-syllables and the wa-stem nouns follow the a-stem inflection exactly. The ja-nouns with long (and polysyllabic) stems deviate only in the nominative singular, which ends in i. This deviation reflects the Germanic merger of Indo-European *ja-stems (*-jeH₂, e.g. Sanskrit kanya) and Indo-European *-jH-stems (e.g. Sanskrit devī). That the Gothic distinction can be traced to pre-Germanic times has been apparent at least since 1870—see B. Delbrück, "Die Declination der Substantiva im
Germanischen insonderheit im Gotischen," ZfdP 2, p. 394. In the jH-stems, Greek appears to reflect Indo-European *-ia, but the case for *-i as the original long-stem ending was well put by E. Sievers, "Zur Accent- und Lautlehre der germanischen Sprachen," PBB 5 (1878), p. 139:

So aber stehen wir vor dem dilemma: entweder lautete der nominativ indog. -ia und das griechische hat das relativ ursprünglichere bewahrt: dann bleibt nicht nur die verkürzung des a im griechischen rätselhaft, sondern man muss es auch für einen zufall erklären, dass fünf sprachstämme, indisch, iranisch, slavisch, litauisch, deutsch auf dieselbe contraction des ia zu i verfallen wären, die sonst lautgesetzlich für jede einzelne nicht begründet werden kann; oder der nom. lautete indog. bereits -i, dann bleibt zwar das griech a ebenso unerklärt wie im ersten falle, aber die übrigen schwierigkeiten fallen fort. Kann es zweifelhaft sein, dass man sich billiger weise für die letztere ansicht zu entscheiden hat?

In pre-Germanic, the syllabicity of i and H in the *jH-stems was determined, in part, by preceding syllable length as shown in the following nominative and accusative forms:

<table>
<thead>
<tr>
<th>Short Stem</th>
<th>Long Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>CVCjH</td>
</tr>
<tr>
<td>Acc.</td>
<td>CVCjHm</td>
</tr>
</tbody>
</table>

Greek -ia in the long stems reflects *-ijH, and thus indicates a different syllabification (modeled after the accusative?). In pre-
Germanic, *$\hat{H}$ was lost with lengthening of the preceding vowel. Thus *CVCC$\hat{i}$. On the other hand, syllabic *$\hat{H}$ merged with *$\hat{N}$. Thus *CVC$\hat{j}$a, etc. Feminines in *-ja, *-jam, etc. were probably re-modeled to *-j$\tilde{a}$, *-j$\tilde{a}$- and so on after the $\tilde{a}$-stem inflection. So Hermann Hirt, Handbuch des Urgermanischen, Teil II: Stammbildungs- und Flexionslehre (Heidelberg, 1932), p. 63. That is, the old *-ja stems and the old *-j$\hat{H}$ stems all but merged. Replacement of the long-stem *-j$\tilde{a}$ noun nominative (*-j$\tilde{a}$) by the long-stem *-j$\hat{H}$ noun form (*-\overline{I}) completed this process.

For our purposes here, it is enough to know that Gothic -\overline{I} in the long j$\tilde{a}$-stem nominative singular probably reflects Germanic *-\overline{I}, as opposed to e.g. *-ij$\tilde{a}$. Further discussion of the Indo-European and Germanic forms may be found in the following: A. Bezzenberger, "Die Vertretung der abgeleiteten altindischen femininstämme auf \overline{I} in Germanischen," BB 8 (1884), pp. 35-37; Alois Walde, Die germanischen Auslautgesetze (Halle, 1900), pp. 179-181; R. C. Boer, Oergermaansch Handboek (Haarlem, 1924), pp. 184-187; Max Hermann Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), p. 110; Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, II, Formenlehre (Berlin, 1969), pp. 23-25; Hans Krahe and Elmar Seebold, Historische Laut- und Gormenlehre des Gotischen 2nd ed. (Heidelberg, 1967), pp. 81-82; Wolfgang Krause, Handbuch des Gotischen, 3rd ed. (Munich, 1968), p. 156; Oswald Szemerényi, Einführung in die vergleichende Sprachwissenschaft (Darmstadt, 1970), pp. 175-176; and Charles-James N. Bailey, Inflectional Pattern of Indo-European Nouns, p. 144 (cf. also pp. 192-194).

There is no orthographic evidence to indicate that the j$\tilde{a}$-stems

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and wā-stems followed Sievers' Law as described in Section 2.9. If, however, the arguments of that section can be accepted, then readings with [ij] and [uw] after long stem-syllables are probably to be inferred.
The table below gives Germanic and Indo-European forms from which the Gothic _u_ stem declension is to be derived.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>common sg. N</td>
<td>-us</td>
<td>-uz</td>
<td>-us</td>
</tr>
<tr>
<td>A</td>
<td>-um</td>
<td>-um</td>
<td>-u</td>
</tr>
<tr>
<td>G</td>
<td>-ous</td>
<td>-auz</td>
<td>-aus</td>
</tr>
<tr>
<td>L</td>
<td>-eu</td>
<td>(D) L -eu</td>
<td>D -au</td>
</tr>
<tr>
<td>V</td>
<td>(-ou), -u</td>
<td>-au (-u)</td>
<td>-au (u)</td>
</tr>
<tr>
<td>pl. N</td>
<td>-ewes</td>
<td>-ewez</td>
<td>[-jus]</td>
</tr>
<tr>
<td>A</td>
<td>-uns</td>
<td>-unz</td>
<td>-uns</td>
</tr>
<tr>
<td>G</td>
<td>-(e)wom</td>
<td>-ewom</td>
<td>-iwe</td>
</tr>
<tr>
<td>I</td>
<td>-umis</td>
<td>D -umiz</td>
<td>-um</td>
</tr>
<tr>
<td>neuter sg. NA</td>
<td>-u</td>
<td>-u</td>
<td>-u</td>
</tr>
</tbody>
</table>

Other forms, beside those given above, existed in Indo-European, together with cases which are not reflected in Germanic. For discussion, see Charles-James N. Bailey, *Inflectional Pattern of Indo-European Nouns*, University of Hawaii Working Papers in Linguistics, vol. 2, no. 1 (Honolulu: Jan., 1970); Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970); Hans Krahe, *Indogermanische Sprachwissenschaft*, II,
Gothic forms are orthographic and assumed to be systematic phonetic except that au probably spells a monophthong—see the orthographic evidence presented in Oscar F. Jones, "Gothic au in inflectional syllables," *Language* 34 (1958), pp. 33-39. In the singular of the non-neuter forms in Gothic, au sometimes appears for u and vice versa. This Gothic development will be discussed briefly under the vocative singular, but will otherwise be ignored in what follows.

Genitive Singular, Germanic *-auz.

As noted by Marian Adamus, "On the genetic situation of Nordic," KN 9,4 (1962), p. 389, the form *-auz is "common to all of Germanic." It shows clearly that Indo-European *ou became Germanic *au, just as *oi became *ai. I assume that this development occurred about the time that *o merged with *a—compare Section 2.6. On *-z, see Section 2.12.

Locative-Dative Singular, Germanic *-eu.

Forms given by Bailey (p. 141) as possible Indo-European u-stem datives include wey/vey, ewey, and their o-grade correspondants. Not one of these forms is reflected in any Germanic dialect; and, so far as I am aware, the Germanic u-stem dative has always—with the exception of a few studies from the 1850's and earlier—been derived from Indo-European locative formations. (Compare W. van Helten, "Grammatisches [LVII]," PBB 28 (1903), pp. 538-539.) Germanic scholars have debated, however, whether the inherited form showed
e-grade or o-grade (or both), and whether its shape was *-owi/*-owi
or *-eu/*-ou (or both, or all).

In North Germanic, a u-stem dative singular in -iu is un-
ambiguously attested on Tjurkö bracteate 1 — dated 500 AD by
Elmer H. Antonsen, A concise grammar of the older Runic inscriptions
(Tübingen, 1975), number 109. This early form is hardly to be seen
as instrumental renewed with -u (as, for example, in Old High
German), and particularly so in that North Germanic does not
renew the pronominal instrumental. Furthermore, the typical Old
Icelandic u-stem dative in -i, -e with i-umlaut of the root can be
derived regularly from earlier -iu, but is virtually impossible to
explain as an innovation. In particular, it cannot be an instru-
mental from *-e since the *-e instrumental seems to reduce to zero
plus i-umlaut in the i-stems (see 3.1.4 of the present study). In
short, North Germanic requires us to reconstruct an e-grade dative-
locative for the u-stems in Germanic. With this form guaranteed
by North Germanic, we would be better advised to see it reflected
as well in Old High German than to explain the Old High German form
on the model of the i-stems and o-stems.

Old English and Old Frisian u-stem datives in -a are often
cited as forms reflecting an o-grade dative parallel to that in
Gothic -au. Without cognate forms in either North Germanic or
Old High German — Old Saxon, however, we ought to view this compari-
son with considerable skepticism. We should also note that Old Eng-
lish and Old Frisian show -a for the u-stem nominative plural, even
though all other Germanic languages show an e-grade for this ending.
In a footnote on the nominative plural, A. Campbell writes:
"C. E. Bazell (private communication) regards OE, OFris. n. and a.p. -ā as the development of I-E n.p. -e̞es. At least in the Ingvaæonic area he would limit the change e > i in unaccented final syllables . . . to before e . . . and before a lost I-E i . . . . But -e̞es > Ingvaæonic -eus > -eu, which shared the development of -au to OE, OFris. -o > -a." — Old English Grammar (London, 1959), p. 246. If this explanation will suffice for the nominative plural, it will necessarily also derive dative singular -ā from earlier *-eu. On the other hand, if Old English and Old Frisian have merely extended the o-grade to the nominative plural (replacing *-ewez by *-awez), then they may similarly have replaced dative *-eu by *-au. Either way, Old English and Old Frisian may agree with the rest of North-West Germanic in deriving the u-stem dative singular from a Germanic e-grade form. At the very least, we may state that North-West Germanic does not compell us to reconstruct doublet forms for the u-stem dative in Germanic.

Turning now to Gothic -au, we must note that this ending could reflect an o-grade form (compare ahtau 'eight' < *oktōu). I would suggest, however, that we may reconstruct such a form for Germanic only if it can be shown that the Gothic ending cannot possibly be due to replacement or restructuring. Doublet forms of the same inflectional ending must necessarily be highly unstable within a single paradigm. For this reason, it seems unlikely to me that a doublet in the u-stem dative could have survived all the way from Indo-European to Germanic only to break down suddenly and with remarkable cleanliness at the separation of Gothic and North-West Germanic. We have seen that North-West Germanic requires but a
single form for the _u_-stem dative, and we note that Gothic, too, gives evidence for but a single form (the _-au_, _-u_ variation is clearly secondary and has no bearing here). Considering all of the above, I believe we should seek to derive the Gothic and North-West Germanic forms from a single Germanic morpheme if this is at all possible. If it is possible, then the fact that Gothic _-au_ could also reflect an _o_-grade form is an inconsequential accident.

The ending *-ewi has been postulated to explain the North-West Germanic forms by, among others, Elmer H. Antonsen, _A concise grammar of the older Runic inscriptions_ (Tübingen, 1975), p. 20. In rejecting it, I appeal to the explanatory power of reconstructions. A reconstruction which explains the North-West Germanic but not the Gothic form is obviously less desirable than a reconstruction which explains both the North-West Germanic and the Gothic form. Compare Wilhelm Streitberg, _Zur germanischen Sprachgeschichte_ (Strassburg, 1892), p. 89. Others who have proposed an *-ewi/*-awi form include: B. Delbrück, "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," ZfdP 2 (1870), pp. 395, 397; H. Paul, "Die Vocale der Flexions- und Ableitungs-Silben in denaeltesten germanischen Dialecten," PBB 4 (1877), p. 408; W. van Helten, "Grammatisches [LII-LXIII]," PBB 28 (1903), pp. 522, 538-542; R. Bethge, "Deklination des Urgermanischen," in _Laut- und Formenlehre der altgermanischen Dialekte_, ed. Ferdinand Dieter (Leipzig, 1900), p. 537 [he sees *-øu or *-œu for Gothic]; R. C. Boer, _Oergermaansch Handboek_ (Haarlem, 1924), p. 192. In view of the fact that the _u_-stem nominative plural, Germanic *-ewez, appears in Gothic as _-jus_ (< *iws), it is not likely that a cognate Gothic and North-
West Germanic dative derives from a Germanic *-ewi. Such a form would presumably yield Gothic *-iw, *-iu, or *-ju.

More plausible, in my opinion, is the frequently proposed Germanic form, *-eu. A morpheme of the shape *-eu/*-ou has been postulated by, among others: Otto Bremer, "Germanisches "

(p. 153) that this development may have led to a parallel (analogical) restructuring of the u-stem locative. For related but different explanations, see Szemerényi p. 110, Bailey, pp. 56-65.

To *-eu, we have no exactly parallel endings outside the u-stems in Germanic, but we do have a useful comparison in final *-e. For Gothic, we have reason to believe that originally final long *-e (< *-ai) shortened and then lowered to -a (see Section 2.4). If we extend the lowering to all secondarily shortened -e's, and if we postulate that *-eu became *-eu at about the time *-ai became *-ai, then Gothic -au can indeed reflect older *-eu. At the very least, there appears to be nothing in Gothic to contradict this proposed development.

For North-West Germanic, I have proposed that final *-e (< Indo-European *-e) became -i, perhaps through the intermediate stage *-e (Sections 2.6, 2.8). To explain the Old Icelandic, Old High German, and Old Saxon u-stem forms, we need only extend the raising rule to secondarily shortened e before u in unstressed position—barring the influence of low vowels in following syllables. As explained above, the Old English - Old Frisian forms are probably to be treated in conjunction with the nominative plural.

In that it seems to me to be the most plausible way to account for the attested forms, I will here reconstruct Germanic *-eu as the dative (-locative) ending of u-stem nouns.

Vocative Singular, Germanic *-au (*-u).

By-forms in *-au/*-u may have existed in Germanic. I am in-
clined to believe, however, that only *-au was inherited—compare W. van Helten, "Zur gotischen Grammatik," IF 14 (1903), pp. 78-79; Hermann Paul, "Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4 (1877), p. 437. Axel Kock's explanation of the -u/-au variation in the Gothic vocative as the product of variable accent and analogy is unacceptable—"Kleine gotische Beiträge," PBB 21 (1896), p. 433. Rather, I believe we need deal only with partial replacement and extension.

Van Helten, in the reference just cited, plausibly argues that vocative -au picked up a -u by-form from nominative -us. He compares the o-stem vocative/nominative sets skalk, frijond : skalks, frijonds in which vocative equals nominative minus -s. From the vocative, the variation spread to other cases. Paul (1877, p. 436) would add the genitive and dative as sources of au in the nominative and accusative.

Richard Loewe—"Der Wechsel von u und au in der gotischen u-declination," PBB 46 (1922), pp. 51-84—suggests that the u-stem singular was reformed on the model of other classes (e.g. consonant stems) in which the equation "genitive singular equals dative singular plus -s" existed. In these classes, the equation "dative singular equals accusative singular" also obtained. From this came the u - au variation in the dative and accusative. From here, the variation extended throughout the singular.

Whether one follows Loewe or van Helten, it is evident that the alternation does not tell us that au was necessarily a monophthong. Compare James W. Marchand, "Dialect characteristics in our Gothic mss.," Orbis 5 (1956), p. 148.
Ernst A. Ebbinghaus, "Gotica II [6]," GL 11, 2 (1971), pp. 100-103, suggests that some of the Gothic doublets might have been inherited. This argument would have more weight if cognate doublets could be found in the other Germanic dialects.

One problem with Loewe's explanation is the fact that ai forms do not appear in the nominative and accusative singular of feminine i-stems, even though most of the model paradigms adduced by Loewe are feminine. One problem with van Helten's explanation is the fact that the vocative, as a distinct case form, is moribund in Gothic. I believe, however, that the two theories, in conjunction, may strike close to the truth. Thus I would note that the virtual disappearance of the vocative as a distinct case form in Gothic is due primarily to phonological factors; the case, as a semantic entity, is still intact. In the o-stems, syncope and apocope produced the equation "vocative equals nominative minus -s". All but three non-neuter u-stems in Gothic are masculine, and it is not difficult to believe that the o-stem equation could have carried over to produce a u-stem vocative in -u (beside inherited -au), and possibly a nominative in -aus (beside inherited -us). It is doubtful that the Germanic a-stem (feminines) inherited a vocative (compare Bailey, pp. 27-29). At any rate, there was no possibility of an equation "vocative equals nominative minus -s" since the a-stems had no -s in the nominative. For this reason, we would not expect to find any influence of the a-stem vocative/nominative on the feminine i-stems, even though the inflection is morphologically comparable to the (largely masculine) u-stems.

I suspect that the variability between u and au in the nominative
and vocative (van Helten's theory) may have been linked to the pseudo-variability between accusative -\textit{u} and dative -\textit{au} when compared to the equivalence of these cases in the declensions cited by Loewe. That is, variability in the nominative and vocative permitted the reinterpretation of the inherited distinction between dative and accusative as an underlying equivalence subject to free variation. From the vocative, nominative, accusative, and dative, the variability spread to the genitive singular.

Common Nominative Plural, Germanic *-\textit{ewe}z.

There is no significant controversy about the Germanic form. On the Old English - Old Frisian ending, which seems to reflect an o-grade, compare W. van Helten, "Grammatisches [XXXV]," PBB 20 (1895), p. 515. The vowel of the final syllable is lost in all Germanic dialects. In Gothic, it is impossible to tell whether or not unstressed *e had become *i before the syncope. Most handbooks merely assume that the Gothic form has the derivation: *-\textit{ewe}z > *-\textit{iwiz} > *-\textit{iwz} > *-\textit{jus}.

It is interesting to compare the adjective \textit{lasiws} 'weak' and the u-stem nominative plural, e.g. Germanic *\textit{libi}wiz 'limbs'. \textit{Lasiws} is a wo-stem adjective, and its nominative singular can be reconstructed as Germanic *\textit{lasiwaz}. From the near parallelism of *\textit{lasiwaz} and *\textit{libi}wiz in Germanic, we would expect the cases to coincide in Gothic, yet they do not. *\textit{lasiwaz} is Gothic \textit{lasiws}, while *\textit{libi}wiz is Gothic \textit{libius} R 12,4. Though unstressed *a may (or may not) have syncopated earlier than unstressed *i, it is probable that the two endings did coincide (as *\textit{lasiwz}, *\textit{libiwz})
at some stage of pre-Gothic. From this point on, however, regular developments are hard to ascertain.


Clearly, though, \textit{lasiws} is not a morphophonemic spelling for \textit{*lasjus}. Such a double spelling (\textit{i} for \textit{j}, \textit{w} for \textit{u}) is utterly without parallel in Gothic. Yet it is difficult to see how a shift from \textit{*-jus} to \textit{-iws} could be motivated phonetically or phonologically. Both endings are monosyllabic and hence not to be compared with dative \textit{lasiwa} where \textit{i} and \textit{w} belong to separate syllables. Furthermore, the postulated development, \textit{*-iw} > \textit{*-ju} > \textit{-iw}, is suspect in itself. A priori, it would seem much more likely that \textit{lasiws} is the
regular form and that \textit{lihjus} constitutes a limited innovation.

Fortunately, we need not go far in order to motivate the development of \textit{*lihiws} to \textit{lihjus}. Four out of seven other case endings in the \textit{u}-stem declension display the vowel \textit{u}: nominative singular \textit{lipus}, accusative singular \textit{lipu}, accusative plural \textit{lipuns}, dative plural \textit{libum}. Beside these, nominative plural \textit{*lihiws} must have seemed anomalous. Far from being a general phonological rule, the shift of syllable peak (\textit{iw} > \textit{ju}) seems to have been a nonce reformation, limited in domain to the \textit{u}-stems, and serving to bring the \textit{u}-stem nominative plural into line with the other cases containing vocalic \textit{u}. It follows from this, as well, that \textit{lasiws} is indeed the regular reflex of Germanic \textit{*lasiwaz} and that pre-Gothic \textit{*iw} did not monophthongize in unstressed position (compare Section 2.9).

Genitive Plural, Germanic \textit{*-ewom}.

There is little debate about the Germanic form. M. H. Jellinek--\textit{Geschichte der gotischen Sprache} (Berlin, 1926), p. 107--thought that the Gothic ending \textit{-iwe} derived its \textit{-i-} from the nominative plural. Most other Germanic or Gothic handbooks have considered \textit{-i-} good evidence for the Germanic form postulated above. I believe that an \textit{e}-grade genitive plural may have existed in both \textit{u}-stems and \textit{i}-stems in Germanic, and that this state of affairs is reflected in the Gothic \textit{u}-stems and the Old High German \textit{i}-stems. On the change of nasalized \textit{*ō} to \textit{ē} in Gothic, see Section 2.3.

Dative Plural, Germanic \textit{*-umiz}.

The Germanic form should be compared with the Indo-European
instrumental plural. See 3.1.1 (a). For u-stem evidence on the
*-mis/*-mus/*-mos question, see Alan S. C. Ross, "Contribution to
the study of u-flexion (concluded)," TPS 1954, pp. 118-119.

Neuter Nominative-Accusative Singular, Germanic *-u.

The ending is uncontroversial. On the retention of u in
Gothic, see Section 2.5. No neuter plural forms are attested in
Gothic.
SUBSECTION 3.1.4

The i-stem nouns

Forms of the i-stems in Indo-European, Germanic, and Gothic are given in the following table.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
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<tbody>
<tr>
<td>sg. N</td>
<td>is</td>
<td>iz</td>
<td>s</td>
</tr>
<tr>
<td>A</td>
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<td>im</td>
<td>Ø</td>
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<tr>
<td>G</td>
<td>ois</td>
<td>aiz</td>
<td>[is]</td>
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<tr>
<td>L</td>
<td>ēi (D)</td>
<td>ēi</td>
<td>D a [a]</td>
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<td>I</td>
<td>ē (?)</td>
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<td>V</td>
<td>ei (i)</td>
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<td>ejez</td>
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<tr>
<td>G</td>
<td>(e)jōm</td>
<td>ejōm</td>
<td>[ē]</td>
</tr>
<tr>
<td>I</td>
<td>imis</td>
<td>Dimiz</td>
<td>im</td>
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</tbody>
</table>

As with the u-stems, there existed additional Indo-European i-stem forms which are not reflected in Germanic. For discussion, see Charles-James N. Bailey, *Inflectional Pattern of Indo-European Nouns*, University of Hawaii Working Papers in Linguistics, vol. 2, No. 1 (Honolulu: Jan. 1970); Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970); Hans Krahe.

In Gothic, as in all the other Germanic languages, the singular of the masculine i-stems has joined the o-stem inflection. Jerzy Kurylowicz has associated this fact with the relative chronology of a-syncope and i-syncope in the several dialects—"Les thèmes en -i-, -u- du germanique," Mélanges de linguistique, de philologie, et de methodologie de l'enseignement des langues anciennes offerts à M. René Fohalle (Duclot: 1969), pp. 33-40. He notes that a was lost earlier than i in unstressed syllables (at least in North-West Germanic—the chronology is not clear in Gothic). Thus the o-stems must have shown nominative *-o, accusative -0 at a time when the i-stems still showed nominative *i(z), accusative -i. As a result, when syncope/apocope did affect i, this phonological process was interpreted as a morphological merger with the o-stems.

Since a-syncope occurred independently in the different Germanic dialects (Section 2.1 of the present study), it follows that the merger of i-stem masculines and o-stem masculines also occurred independently. This is borne out by the preservation of nominative-accusative e (< *i) in the Old English masculines (but not in Gothic), and by the variety of restructurings which took place in the feminine i-stems in the dialects. As a result, we cannot
assume that the Germanic paradigm was reshaped in identical ways in each of the dialects.

Genitive Singular, Germanic *-aiz.

An e-grade by-form, *-eis, was postulated by, among others, Gustav Burghauser (Germanische Nominalflexion auf vergleichender Grundlage [Vienna, 1888], p. 15) to explain Old High German -i in the feminines. Rare early feminine genitives in -i also appear in Old English, but these are probably to be linked with the rare early nominative-accusative plural in -i. The extension of nominative-accusative plural -i to the genitive singular was patterned on the agreement of these three endings in the a-stem nouns, to which the feminine i-stems were being assimilated in early Old English. It is not likely that the same process was at work in Old High German since a-stems and feminine i-stems remained distinct in the nominative-accusative singular and plural. Rather, the Old High German feminine genitive in -i was probably extended from the dative. This extension reflects the merger of the masculine i-stems with the o-stems and the competition of endings shown below:

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<thead>
<tr>
<th></th>
<th>masculine</th>
<th>feminine</th>
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</thead>
<tbody>
<tr>
<td>genitive</td>
<td>*-es</td>
<td>*-ai</td>
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<tr>
<td>dative</td>
<td>*-ai</td>
<td>*-i</td>
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</table>

Genitive *es, dative *-ai are the o-stem endings; genitive *-ai (< *-aiz), dative *-i are the historical endings of the i-stems.

The identity of genitive *-ai and dative *-ai led, in the masculines, to the clarifying introduction of the o-stem genitive *-es and the
restriction of *-ai genitive-dative to its dative function. At the same time, this agreement of endings in the changing masculines provided a basis for the extension of *-i to create a feminine genitive-dative. Whether the new feminine genitive (-dative) in *-i permitted the collapse of the old genitive (*-ai) into the masculine dative and its replacement by the o-stem genitive, or whether the latter process deprived the feminines of a genitive so that *-i had to be extended, cannot really be determined. Perhaps the several developments were part of a single process. At any rate, there is no reason to reconstruct an e-grade genitive for the i-stems in Germanic.

Dative Singular, Germanic *-ei.

The form is historically a locative; no permissible i-stem dative forms are obviously reflected in any Germanic dialect. As in the u-stems, both e- and o-grade forms have been postulated, and there is debate as to whether the morphemic shape was *-eji/*-aji or *-ei/*-oi. Thus B. Delbrück, "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," (ZfdP 2 [1870]), p. 396, postulates -aji for Germanic; H. Paul, "Der Ablativ im Germanischen," (PBB 2 [1876]), p. 343, reconstructs aji/iji; Otto Bremer, "Germanisches e," (PBB 11 [1886]) p. 50, postulates ei/oi for Gothic, i, iji, ej, or eji for non-Gothic; Gustav Burghauser, Germanische Nominalflexion auf vergleichender Grundlage (Vienna, 1888) p. 19, sets up ei for Gothic, iji for non-Gothic; Hermann Collitz, Die Behandlung des urspr. auslautenden ai im Gotischen, Althochdeutschen u. Altsächsischen, Besonderer abdruck aus dem
XVII bander der Beiträge zur Kunde der indogermanischen Sprachen
(Göttingen, 1890) p. 27, proposes ői for Gothic; Oskar Wiedemann,
"Der Datívus Singularis der germanischen Sprachen," (ZVS 31 [1892]),
pp. 480–482, postulates øjí for the North-West Germanic feminine;
Hermann Hirt, in "Grammatische Miscellen," (PBB 18 [1894]), part A,
and in "Zu den germanischen Auslautgesetzen," (IF 6 [1896]), p. 75,
reconstructs ēi for Germanic; Wilhelm Streitberg, Urgermanische
Grammatik, 4th ed. (1895; reprint, Heidelberg, 1974), p. 242, also
reconstructs ēi; R. Bethge, "Deklination des Urgermanischen," in
Laut- und Formenlehre der altgermanischen Dialekte, ed. Ferdinand Dieter (Leipzig, 1900), p. 538, sees locative ēi in Gothic, instrumental ī in West Germanic; Alois Walde, Die germanischen
Auslautgesetze (Halle, 1900), p. 10, derives the North-West Germanic forms from locative e or instrumental ī; A. Bezzenberger, "Got.
bairau, Konjunktiv von indogerm. bhéré(u)," (BB 26 [1901]), p. 152,
sees in Gothic the reflex of ēi or ēj-i; W. van Helten, "Grammati-
sches [LVII]," (PBB 28 [1903]), p. 539, postulates ēi for West
Germanic, ēi or ī for North Germanic; Joseph Wright, Grammar of the
Gothic; R. C. Boer, Oergermaansch Handboek (Haarlem, 1924), p. 190,
reconstructs ēj/ājī for Germanic; M. H. Jellinek, Geschichte der
gotischen Sprache (Berlin, 1926), p. 105, sets up ēi for Gothic, as
does Ernst Kieckers, Handbuch der vergleichende gotischen
Grammatik (1927; reprint, Munich, 1960), p. 114; Hans Krahe and
Wolfgang Meid, Germanische Sprachwissenschaft, II, Formenlehre,
7th ed. (Berlin, 1969), p. 31, postulate ēi for all Germanic;
Wolfgang Krause, Handbuch des Gotischen, 3rd ed. (Munich, 1968),
p. 159, derives the Gothic form from $\ddot{e}i$; and G. Lee Fullerton, "The source of the Gothic fourth weak conjugation," (Language 47 [1971]), pp. 378-379, note 8, derives the Old High German form from $\ddot{e}i$.

The matter of vowel gradation can be settled from North-West Germanic evidence. In his article, "The inscription on helmet B of Negau," Language 29 (1953) p. 311, Konstantin Reichardt has written, concerning the masculine $i$-stem dative: "Old Norse shows the vast majority of nouns without ending and with $i$-umlaut in its proper place, e.g. gest, stað. . . . The ON forms can be compared to early West Germanic forms such as OS hugi (Codex Monacensis), OE daeli (Epinal Glosses), OHG quidi; they can all result from an IE instrumental in $-\dddot{i}$ (Skt. mati)." But it is not necessary, in my opinion, to see an instrumental behind the North-West Germanic forms, and particularly since one must then ask what happened to the old dative-locative. At best, one might assume a phonological merger of the dative-locative and the instrumental. But in that case one need not assume a separate instrumental at all.

The North-West Germanic $i$-forms can all be derived from a locative in *-$\dddot{e}i$, perhaps reflecting the simplification of an older triphthong **-$\dddot{e}$y. See Jochem Schindler, "Bemerkungen zur Herkunft der idg. Diphthongstämme und zu den Eigentümlichkeiten ihrer Kasusformen," Die Sprache 19 (1973), pp. 148-157, especially pp. 153-156; also Szemerényi, Einführung, p. 110; and compare Bailey, Inflectional Pattern, pp. 56-65 for a similar rule. For reasons which I stated in Subsection 3.1.3 (Dative Singular), I believe that Gothic can reflect the same form; therefore, that it probably does reflect
the same form unless clear evidence for a doublet can be presented.

I would note, however, that while there is some reason to believe that *-\(\ddot{e}i\) was the \(i\)-stem dative-locative form inherited by Germanic, the details of its development in the dialects cannot be ascertained with certainty. So far as I can see at the moment there are two, equally reasonable, possibilities. First, *-\(\ddot{e}i\) lost its final *-\(\ddot{i}\) to become *-\(\ddot{e}\) in common Germanic times, just as *-\(\ddot{oi}\) became *-\(\ddot{o}\) (see Section 2.7). In North-West Germanic, *-\(\ddot{e}\) became *-\(\tilde{i}\); in Gothic *-\(\ddot{e}\) became -\(a\) (see Section 2.4). Thus the Gothic feminine dative (-\(ai\)) is a new form imported from the \(\ddot{a}\)-stems in reaction to the merger of the inherited dative with the \(o\)-stems. Alternatively, *-\(\ddot{ei}\), like *-\(\ddot{ai}\), continued into the dialects and was independently shortened to *-\(\ddot{ei}\). In Gothic, secondarily shortened *\(\ddot{e}\) became \(a\) (\(\ddot{e}i > ai\)); in North-West Germanic, \(i\) (\(\ddot{e}i > \tilde{i}\)). Thus the \(i\)-stem dative exactly parallels the \(u\)-stem, and the Gothic masculine dative (-\(a\)) is a new form borrowed from the \(o\)-stems.

Perhaps a new and detailed study of North-West Germanic chronology will eliminate one of these two proposals. From Gothic alone, however, it is impossible to tell which of the two \(i\)-stem datives is inherited.

Instrumental Singular, Germanic *-\(\ddot{e}\).

A distinct \(i\)-stem instrumental is reflected only in Old High German -\(iu\), which occurs, significantly, with both masculine and feminine \(i\)-stems. The form probably reflects an earlier *-\(i\), renewed with -\(u\) from the \(o\)-stems (and \(\ddot{a}\)-stems, see Section 2.8) as in the pronouns. Most Germanicists have derived this *-\(i\) from
Indo-European *-I as reflected in Sanskrit (see the references above under Dative Singular). But Bailey has shown that there is reason to doubt this comparison (Inflectional Pattern, p. 67, note 1), and there is also the problem of explaining the absence of an i-instrumental in Gothic since Germanic final long i does not disappear completely. I believe that the inherited form may have been *-ε, derived from Indo-European *-eyH, for which Bailey finds indirect evidence in Sanskrit (Inflectional Pattern, p. 68; on the rule eyH → e, see Bailey, pp. 102-103.). In North-West Germanic, *-ε became *-I and thus merged with the dative-locative everywhere save in Old High German where it was kept distinct by the renewal of the i-instrumental. In Gothic, *-ε became a and merged with the masculine dative. The suppression of a feminine i-stem instrumental then parallels the suppression of the a-stem instrumental as explained in Section 2.8.

Nominative Plural, Germanic *-ejez.

There is all but universal agreement on this form. Walter Peterson, "Hittite and Indo-European nominal plural declension," AJP 51 (1930), pp. 256-257, discusses the remote possibility that *-is, not *-ejes, was the inherited ending.

Genitive Plural, Germanic *-ejom.

The vowel-glide combination is reflected in Old High German (even after short stems, e.g. quiţio) and in Old English poetic forms (as -iga). In Gothic, the expected ending *[-ijom] would have been identical to the ending of jo- and ja-nouns with long stem-syllables. Its reformation to *-om was perhaps a case of
hyper-correction reflecting the merger of the masculine $i$-stems with the $o$-stems (i.e. not the $jo$-stems) in the singular. The feminines followed suit since the other plural forms were common to both masculines and feminines.
SUBSECTION 3.1.5

The n-stem nouns

3.1.5 (a) The masculine and neuter n-stems.

Table One gives the Germanic and Indo-European predecessors of the masculine and neuter n-stem endings in Gothic. The feminine nominative singular is included because it will be referred to in the discussion.

Table One

Nominative Singular: masculine, Germanic *-on; feminine, Germanic *-an.

Some have postulated the forms *-o, *-e, and/or *-on, *-en as the Germanic masculine nominative singular ending. For reasons which appear in Section 2.2 (especially 2.2.4), I reject the trimoric forms. Accordingly, I must here try to show that the dialectal forms can be derived from *-on or *-en. (A possible origin of the lengthened grade in this ending is discussed by Bailey, pp. 163-169.)

The ending *-on seems well-supported by the West Germanic reflexes, Old English -a, Old High German -o. The ending *-en...
is postulated solely on the evidence of North Germanic: Runic 
-ō (=[œ]?) , Old Icelandic -i without umlaut --though some scholars 
have suggested that the North Germanic form is a replacement of 
earlier *-ōn (see the references in Section 2.2.4).

Most handbooks state that the Gothic form can reflect either 
*-ōn or *-en. Some scholars, however, argue that the Gothic ending 
probably derives from *-en. Thus compare: Hermann Hirt, "Vom 
schleifenden und gestossen Ton in den indogermanischen Sprachen; 
zweiter Teil, die schleifende Betonung im Germanischen und die 
Auslautgesetze," IF 1 (1892), p. 207; Hirt, "Grammatische Miscel-
len," PBB 18 (1894), pp. 281, 293; and Wolfgang Krause, Handbuch 
des Gotischen, 3rd ed. (Munich, 1968), p. 166. This argument is 
based on the belief that East and North Germanic share a closer 
relationship to one another than either does to West Germanic. 
Scholarly opinion on Germanic subgrouping has recently changed, 
however, and it is now frequently maintained that Gothic stands 
off to the side of a North-West Germanic unity. Detailed considera-
tion of the evidence for sub-grouping is presented by Marian Adamus 
397. See also the conclusions reached by Karen R. Bahnick, The 
Determination of stages in the historical development of the Germanic 
languages by morphological criteria, an evaluation (The Hague, 1973). 
The major considerations are succinctly summarized by Einar Haugan, 
in the opinion that North Germanic is more closely related to West 
Germanic than to East Germanic. Thus I reject the claim that Gothic 
is more likely to reflect *-en than *-ōn. Seemingly, Gothic is
perfectly neutral on this point.

I must admit, however, that I am sympathetic to attempts which would explain North Germanic *-ēn as a replacement of earlier *-ōn. In Subsection 3.1.3 (Loc.-Dat. Sg.), I noted that semantically undifferentiated doublets within a single paradigm are extremely unstable. Thus it is difficult to believe that a doublet ending survived without differentiation for the 3,000 (?) years separating Indo-European and Germanic and then suddenly broke down to yield the divergent endings of North and West Germanic. On the contrary it is perhaps reasonable to believe that either North or West Germanic has replaced an earlier, inherited form in the n-stem nominative singular masculine. Since the known history of Germanic migrations makes it difficult to postulate a unified West Germanic as a distinct sub-family of North-West Germanic (see Haugen, p. 111), I give slightly more weight to the agreement of e.g. Old English and Old High German *-ōn than I do to the otherwise unsupported North Germanic *-ēn. That is, I suspect that *-ōн was the single inherited form of the Germanic n-stem nominative singular masculine. Obviously, confirmation or dismissal of my suspicion must come from a detailed investigation of the North-West Germanic dialects—a task which I cannot carry out here. For this reason, I will admit the possibility that Gothic may reflect Germanic *-ēn, though I will place more emphasis on the possibility that Gothic reflects Germanic *-ōn in the n-stem nominative singular masculine.

In Subsection 3.1.5 (b), it will be argued that the Germanic feminine n-stems are probably an extension of the feminine ā-stems,
and that the nominative singular was most likely to have been *-ān.
For the present, however, I must simply rely on the patient indulgence of those who would object to this claim. My reasons for asking this indulgence will appear below.

In Section 2.10, I attempted to show that there is no compelling evidence to support a merger of *-m and *-n prior to the loss of final nasal consonants in Germanic. Though I reject the merger, I as yet to find no reason to believe that the place of articulation of a final nasal affected the quantity or quality of a preceding vowel. That is, for the history of Gothic, one might well believe that *-m and *-n were lost simultaneously with no more effect than nasalization of the preceding vowel. Given this view, one must believe that the n-stem nominative singular masculine (if < *-ōn) ought to equal the common genitive plural (< *-ōm) in Gothic as it does in West Germanic.

In Section 2.3, I argued that the regular reflex of the common genitive plural in Gothic was probably -e, and that o-forms are replacements. If the n-stem nominative singular masculine equals the common genitive plural, I must argue that the attested Gothic n-stem nominative singular masculine in -a is a replacement of expected *-ā. Since, in Sections 2.2(.3 - .5), 2.4, 3.1.2 (a), I suggest that *-ān as well as *-ām yielded -a in attested Gothic, I must also argue that the feminine n-stem nominative singular (< *-ān), attested -o, is a replacement. Below I attempt to show that such replacements are plausible.

In his article, "Zur Declination; germanisch AEO in en Endungen des Nomens und die Entstehung des o (a2)," (PBB 7 [1880], pp. 482-
547), Hermann Möller cites Osthoff's explanation of the Gothic n-stem nominative singular as follows (pp. 491-492): "Den ost-germanischen ausgang des nom. sing. masc. erklärt Osthoff [Morph. unters. I] s. 260 f. durch die einwirkung des artikels. sa *blindō neben so blindō habe sich zur herstellung der harmonie zu sa blinda umgestaltet." (Möller goes on to disagree.) A similar idea appears in Kurylowicz's article on the feminine n-stems. On page 87, Kurylowicz suggests that the Gothic masculine form in -a developed regularly from *-ēn and that the agreement of nominative and oblique forms in the masculine led to restructuring of the feminine nominative: "Die got. Form blindo, die in der Endung vom Akk. Sg. giba abweicht, wäre daher als eine Neubildung zu betrachten, und zwar als des Ergebnis der Differenzierung gegenüber dem Mask. (auf -a): blindan, blindans : blinda = blindon, blindons : blindo (möglichweise auch sa : blind-a = so : blind-o)." Warren Cowgill suggested a similar reformation in 1961, see the reference in Bailey, page 24, note 1. Table Two makes clear the probable lines of influence:

<table>
<thead>
<tr>
<th>masculine</th>
<th>feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronoun</td>
<td>adj.-noun</td>
</tr>
<tr>
<td>nom.</td>
<td>sa</td>
</tr>
<tr>
<td>acc.</td>
<td>ḫana</td>
</tr>
</tbody>
</table>

Table Two

No matter what the inherited forms of X and Y, we have good reason to expect the paradigmatic regularization X = a, Y = o. The feminine form, at least, is almost certainly a replacement, since the West Germanic dialects show reflexes of *-ān identical to the ā-stem.

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accusative singular (\(< *-\text{am}\)). The masculine form could be the regular development of Germanic \(*-\text{en}\), as Kurylowicz proposed, but it could just as easily be a replacement for the reflex of Germanic \(*-\text{on}\). At present, I can see no way to decide the question.

Neuter Nominative Plural, Germanic \(*-\text{ana}\).

Joseph Wright (Grammar of the Gothic language, 2nd ed. [London, 1954], p. 100), Ernst Kieckers (Handbuch der vergleichenden gotischen Grammatik, 4th ed. [1927; reprint, Munich, 1960], pp. 120-121), and Hans Krahe and Wolfgang Meid (Germanische Sprachwissenschaft, II, Formenlehre, 7th ed. [Berlin, 1969], p. 48) all derive the ending from Indo-European \(*-\text{ana}\) (= \(*-\text{anH}\)) with replacement of final \(-\text{o}\) (> \(*\text{-a} > \emptyset\)) by \(*-\text{a}\) from the o-stem neuter plural. In support of original \(*-\text{anə}\) they cite Sanskrit \(-\text{ani}\). Kurylowicz concurs in his study of the feminine n-stem (p. 86). But there is some question about the usefulness of the Sanskrit form for reconstruction. Thus Szemerenyi notes (Einführung, p. 155): "Im Nom. Pl. erscheint in den meisten Sprachen die Fortsetzung von idg. \(-\text{a}\), z.B. lat. nōmina usw. Allein das Arische weicht von dieser Bildungsweise ab."

Szemerenyi takes \(*-\text{on-}\) to be a regular development from \(*-\text{on-H}\), and \(-\text{ani}\) to be the same form with a supporting vowel \(-\text{i}\). But one must question this proposal. First, the non-syllabicity of H in \(*-\text{on-H}\) is perhaps irregular, as is the lengthening of \(*-\text{o-}\) in such a construction (why not \(*-\text{onH} > -\text{ani}\)?) Secondly, what is the source of final \(-\text{i}\) if it is not the reflex of a syllabic laryngeal?

I believe that Bailey's explanation of the Sanskrit form may be preferable (Inflectional pattern, p. 77). Beginning with the zero-grade form \(*-\text{nH}\) (a systematically regular plural when compared
with singular *-n), Bailey follows Eric Hamp in proposing the alternative syllabifications *-nH and *-nH. These develop regularly to Sanskrit -ā and -ni; -ani is a conflation. Bailey attributes the variant syllabifications to sandhi phenomena, through (for Germanic) metrical conditions are perhaps as likely (see below).

For our purposes here, the crucial aspect of Bailey's account is its claim that -āni is to be explained through changes peculiar to Indic. If this is correct, then one cannot compare Gothic and Sanskrit directly; Germanic *-ānā must be explained through Germanic developments.

Table Three summarizes possible developments of the neuter nominative-accusative singular and plural from Indo-European to Germanic.

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing.</td>
<td>ū</td>
<td>ū</td>
<td>un</td>
<td>an</td>
<td>ān</td>
<td>ā</td>
</tr>
<tr>
<td>pl.</td>
<td>ūH</td>
<td>ū</td>
<td>un</td>
<td>an</td>
<td>ān</td>
<td>a</td>
</tr>
</tbody>
</table>

Table Three

The forms listed under Stage 1 are those reflected in Sanskrit (following Bailey). In the Germanic plural, alternative syllabifications are conditioned metrically as VCCnH and VCnH. These patterns are exactly comparable to those reflected in the Germanic development of -jH-stems (see 3.1.2).

Stage 2 reflects both the loss of non-syllabic laryngeals with compensatory lengthening and the development of syllabic H to Germanic *a.
Stage 3 presents a very significant development: in (pre-) Germanic, short and long syllabic resonants merged (Szemerényi, p. 43). From this point on for a considerable length of time, singular and plural may have agreed in the ending *-un, though the plural displayed a second ending *-na. Normally, one might expect that plural *-un would be suppressed and that the singular/plural distinction would be restored as *-un/*-na. But it was perhaps not possible for *-na to take the place of *-un in the plural since this would produce the phonologically impermissible sequence *-VCCna. Accordingly, both *-un and *-na may have remained in the plural and the former may have continued to agree with singular *-un.

In the plural, *-un and *-na were metrically conditioned allomorphs, but their allomorphy was not phonologically transparent. Therefore, at Stage 4, I postulate a replacement of *-un by *-an to clarify the relationship of the plural allomorphs through a synchronic rule of metathesis: *-na after short stems, *-an after long. Since earlier *-un served both singular and plural functions, the replacement of *-un plural by *-an may have carried over to the singular as well. (It is also possible that the replacement began in the singular and was motivated by the o-stem neuter singular *-am, earlier *-om.)

At Stage 5 *-na plural has been reformed to *-nā under the influence of the o-stem neuter plural *-ā. Since earlier *-an and *-na are conditioned allomorphs related by metathesis, the reforma-
tion *-na → *-nā necessarily entails *-an → *-ān. Once again, since *-an served both singular and plural, *-ān appears in the
Stage 6 shows the loss of final nasals. This development ended the relationship of the plural allomorphs and set the stage for the conflation of *-a and *-na to produce Germanic *-ana.

This form develops regularly to Gothic -ona. Note that the conflation restored the singular/plural distinction in the neuter nominative and that it regularized, synchronically, the neuter plural by establishing the stem marker -n- in forms which had previously lacked it (long-stem nominative plurals).

I am aware that the development proposed above is complex and that it cannot be taken as absolutely certain. Nonetheless the proposal does meet the requirement that the Germanic form be explained through Germanic developments. In that this requirement is met in a seemingly plausible way, I would suggest that the proposal may merit consideration.

Neuter Nominative Singular, Germanic *-än.


There are serious chronological and phonological problems with Kurylowicz's explanation. First, the strong adjective nominative-accusative singular is historically *blindam. Since Kurylowicz bases
his proportion on the form *blind, he must believe that the replacement in the weak form occurred after the loss of final nasals (and the loss of *-a). However, his postulated development of *-on > *-o implies that *-on (the form motivated in part by *blind) must have arisen before the loss of final nasals. This cannot be. Furthermore, the development *-on > *-o would seem to be contradicted by genitive plural *-om > -e (if I have argued correctly in Section 2.3), if not by a-stem accusative singular *-am > -a.

One could perhaps appeal to the distinction between *-m and *-n to explain this discrepancy, but I believe the following account is preferable.

It has been suggested above that the original nominative singular of masculine n-stems may have been *-on, that of feminines, *-an. In Gothic these endings may have been replaced by -a and -o respectively. It is perhaps for this reason that Gothic differs in the feminine from North-West Germanic and in the masculine from West Germanic. In the neuter, Gothic again differs from all of North-West Germanic, which dialects would lead us to reconstruct *-an as the Germanic nominative-accusative singular of neuter n-stems.

Though Gothic deviates from the North-West Germanic dialects in the neuter n-stem nominative singular, it shares with them one striking feature: the nominative singular endings of neuter and feminine n-stems are identical. Apparently all the dialects have preserved here a Germanic feature, and this, I believe, may be the key to the Gothic neuter ending.

Though we are inclined to view the neuter nominative singular and feminine nominative singular as two morphemes with a single
phonemic shape, it is also possible to view them as a single morpheme with two functions. If we postulate, for pre-Gothic, that the n-stem nouns were understood as showing but two distinct nominatives—one masculine (*-on), the other non-masculine (*-an)—then the form of the neuter nominative singular is directly explained by the replacement which occurred in the feminine paradigm. That is, *-an was replaced in the feminine paradigm for reasons discussed above, and this replacement carried over to *-an in its other function as neuter nominative singular. To put it yet another way: the agreement of the neuter and feminine nominative singular was preserved even when the feminine ending was replaced. Gothic inherited an agreement of n-stem neuter and feminine nominative singular endings and conservatively maintained this agreement.

The origin of Germanic neuter *-an has been described above in the discussion of the plural. Evidence for the prior existence of *-un (< *n) is discussed by Hermann Hirt, "Grammatische Miscellen," PBB 18 (1894), p. 295; and by Hreinn Benediktsson, "On the inflection of the n-stems in Indo-European," NTS 22 (1968), p. 29, note 1.

Masculine and Neuter Genitive Singular, Germanic *-enaz; Locative Singular, Germanic *-eni.


Masculine Accusative Plural, Germanic *-unz.


Szemerényi, Einführung, p. 154, and Benediktsson, "On the inflection of the n-stems in Indo-European," p. 10, postulate the zero-grade form *-n-gz. This was Rudolf Thurneysen's position as well in "Der Akkusativ Pluralis der geschlechtigen n-Stämme," *Streitberg Festgabe* (Leipzig, 1924). It is supported by the parallel of the r-stems, e.g. *brobruns*. Thurneysen believed that the original ending reduced to simple *-nz, an opinion which is plausible at least for forms in which the n formant followed a heavy syllable, since the probable syllabification *VCCṃnz would yield Germanic *VCCunnz and then *VCCunz by the same sort of reduction which appears in genitive singular *mans (< *manns < *mannes). It is perhaps not
unreasonable to suppose that *-nunz followed *-unnz to become *-unz. For Gothic, the development of *-unz to -ans is, as Thurneysen noted, simply a matter of extending the vowel -a- from the accusative singular and nominative plural.

Dative Plural, Germanic *-anmiz.


3.1.5 (b) The feminine n-stems in *-än- and *-än-.

It has long been known that the Germanic feminine n-stems do not descend directly from comparable Indo-European formations. Thus, in "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," ZfdP 2 [1870], pp. 381-407), B. Delbrück cites Franz Bopp and Leo Meyer that the -n- of the -än-stems has been added in Germanic or slightly pre-Germanic times. He goes on to state (p. 402): "Die richtigkeit dieser ansicht ist besonders einleuchtend bei den fem. der participia praes., Bairandein z.B. entspricht dem sanskr. bharantī und dem griech. ἐρούσα aus *ἐροντία genau, und es ist unmöglich anzunehmen, dass etwa schon in der ursprache diese
formen einen nasal gehabt hätten, der in allen sprachen ausser dem deutschen verloren gegangen sei." On page 403, Delbrück summarizes his view of the Germanic n-declension: "Demnach scheint mir klar, dass wir auch bei diesen feminin-stämmen das n als einen secundären zusatz betrachten müssen, und es ergibt sich: in den masc. auf an ist das n teils ursprunglich, teils neuer zusatz zu a-stämmen, ebenso bei den neutris. In den fem. auf ein ist das n durchweg neu, ebenso bei denen auf on, nur bei rabion ist es vielleicht vorgermanisch."

As regards the -i-stems, the same conclusion was reached by E. Sievers, "Zur Accent- und Lautlehre der germanischen Sprachen," PBB 5 (1878), pp. 143-144; Gustav Burghauser, Germanische Nominalflexion auf vergleichender Grundlage (Vienna, 1888), p. 13; Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, III, Wortbildungslehre, Sammlung Goschen 1218/1218a/1218b (Berlin, 1967), pp. 102-103; Kuryłowicz, in his article on the feminine n-stems, pp. 85-86; and by many others. In an excellent study, "Gothic managei," (Language 22 [1946], pp. 348-353), Fritz Mezger concluded: "To sum up, the Gothic feminine adjective abstract managei is the feminine of an adjective inflected as an i-/ia stem with an additional element n. It is unrelated to the formations Lat. natio or legio." (p. 353).

A similar view seems justified for the Germanic *-an-stems, though it is necessary first to consider a plausible alternative. Thus Hreinn Benediktsson has written: "As regards the -e/o_ stems, the Proto-Indo-European inflection posited in § 2.1 implies---contrary to the opinion, for instance, of A. Meillet---that the n-
suffix did not have lengthened grade in all forms of the paradigm in Proto-Indo-European; on the contrary, it implies that where the lengthened grade appears throughout the paradigm, the long vowel has been transferred, by a process of analogy in each language independently, from the strong to the weak cases." — "On the inflection of the n-stems in Indo-European," NTS 22 (1968), p. 12. For the same opinion in less sophisticated form, see Joseph Wright, Grammar of the Gothic language, 2nd ed. (London, 1954), p. 99; and compare Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik, 2nd ed. (1927; reprint, Munich, 1960), p. 123.

While Benediktsson makes a good case for his view that at least some inherited on-stems have become on-stems by levelling of the lengthened grade, his study largely ignores the Germanic weak adjective declension. Yet the importance of the weak adjective to an understanding of the Germanic feminine n-stem nouns has been rightly emphasized by Kurylowicz, who writes (p. 85): "Ein eigentümlicher Zug der germanischen Sprachentwicklung ist die Änderung des Status der ererbten athematischen Stämme auf Nasal. In den übrigen Sprachgruppen des Idg. bestehen sie entweder weiter als Wortbildungskategorie, wie etwa im Ai. oder Gr., oder bröckeln allmäßlic als solche ab, z.B. im Balt.-Slaw. Im Germ. werden sie dagegen in der Adjektivdeklination zum Rang einer Flexionskategorie erhoben." Compare here the insightful remarks of Wilehlm Streitberg: "Die Kategorie der n-Stämme ist im Germanischen ungemein produktiv. Jedes Adjektiv kann als n-Stamm flektieren. Der Ausgangspunkt für diese Neuerung ist wohl zu suchen, dass in idg. Urzeit Adjektiva durch Übertritt zu den n-Stämmen substantiviert werden

Kurylowicz has described the development so well and so succinctly, that I will quote him at length. On page 85, he writes:


Extremely valuable remarks on the relationship of the an and in stem formations were provided by Fritz Mezger in the article.
Adjectival o-stems have a double feminine formation, one ending in -ā-, the other in -ī(s). The former was the usual feminine formation of adjectival o-stems; originally it did not occur with substantival o-stems. The substantival o-stems might use the o-stem as a commune (ō, ēōs), or they might have a corresponding ī-stem as feminine (Skt. vṛkaḥ : vṛkīḥ, devāḥ : devī). In case an adjective was to function as a substantive, two formations were at hand: the adjectival feminine (krśnā- 'black' : krśnā f. 'black; night'), or a feminine formed like a substantive (Ved. krśnīḥ 'night'). Thus the following forms occur side by side: tāpanāḥ 'burning, torturing' : tāpanīḥ 'heat'; aruṇāḥ 'reddish', aruṇā f. : aruṇīḥ 'dawn'; āparāḥ 'later', āparā f. : āparīḥ 'future'; dharūṇāḥ 'holding' : dharūnīḥ 'vessel'; ārāyāḥ, ārāyah 'miser' : arāyīḥ 'witch'; śyāvā f. 'fusca' : śyāvī 'night' or 'dark cow, dark mare'; rohitāḥ 'red' : rohini 'red cow, red mare'. Thus it is no accident that in Germanic there are two feminine n-declensions, since in Indo-European there were two ways of forming feminines to o-stems. The Germanic ān- and īn-stems are simply the Indo-European ā- and ī-stems with an added element -n- which originally served to form substantives.

The ān-declension which arose as just described was expanded in a variety of ways in Germanic. First, it served as a model for the creation of feminines to masculine n-stem nouns even where no associated adjective existed (thus, perhaps, Gothic arbijō beside arbijā).
Secondly, it probably evoked shifts of inherited (ο)ν-stems due to natural gender—compare Jellinek, *Beiträge zur Erklärung der germanischen Flexion* (Berlin, 1891), pp. 92-94. Third, it may have absorbed other nouns due to association with other uses of the feminine declension (e.g. abstracts)—compare Kuryłowicz, pp. 89-91. Fourth, after the shift of medial -ā- to -ū-, it undoubtedly absorbed the -on-stems postulated by Benediktsson.

What is important to note here is that the reconstructable paradigm—the core around which all the above aggregated—is based on *-ān-, ultimately an extension of *-ā-.

As is clearly shown in the North-West Germanic dialects, the nominative singular of the -an-stems was *-ān, parallel to the masculine *-ōn (*-en). The replacement of this ending in Gothic was described above in Subsection 3.1.5 (a). The long vowel of nominative singular managei is clearly a restoration patterned after tuggō—compare G. H. Mahlow, *Die langen Vocale AEO in den europäischen Sprachen* (Berlin, 1879), p. 68. The oblique cases take the endings of the on-stem nouns, as noted already by B. Delbrück, "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," *ZfdP* 2 (1870), p. 403. On the genitive plural, Delbrück writes (p. 403): "Nur das o im gen. plur. ist auffallend, es ist wol nach der analogie von gibo gebildet." Compare also Gunnar Bech, "Über die gotischen Gen Pl.-Endungen," *Lingua* 23 (1969), p. 61, who believes that the masculine and neuter forms are analogical.

From what was said in Section 2.3 of the present study, I must agree with Delbrück and oppose Bech. Bech's study is useful, however, in explaining why a contrast of gender in the genitive plural appears
in some declensions (the tri-generic), but not in others (the bi-generic), see Bech pp. 56-57. As I argued in Section 2.3, the contrast arose when the stem vowel of the \(\ddot{a}\)-stems was levelled into the genitive plural. With the masculine and neuter \(o\)-stems, the \(\ddot{a}\)-stems formed a tri-generic system (as opposed to, e.g. the \(i\)-stems, which were bi-generic—no neuter). The contrast then spread to comparable tri-generic systems, most notably here, the \(n\)-stems.

North-West Germanic forms in -\(u\)- have caused considerable difficulty in the past. They are discussed by Alois Walde, Die germanischen Auslautgesetze (Halle, 1900), pp. 166-179; E. Prokosch, "Inflectional Contrasts in Germanic," JEGP 20 (1921), p. 475; by Benediktsson, pp. 29-30; and by Kurylowicz, p. 86. I would place perhaps more emphasis on the last, from whose work it appears that there is no need to explain the absence of -\(u\)- forms in Gothic.
Subsection 3.1.6  
The **r**-stem nouns

The table below gives the Indo-European and Germanic **r**-stem forms which lie behind the Gothic endings.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg. N</td>
<td>-er</td>
<td>-er</td>
<td>-ar</td>
</tr>
<tr>
<td>A</td>
<td>-er-m</td>
<td>[-orum]</td>
<td>-ar</td>
</tr>
<tr>
<td>G</td>
<td>-r-os</td>
<td>-raz</td>
<td>-rs</td>
</tr>
<tr>
<td>L</td>
<td>-er-i</td>
<td>D -ri</td>
<td>-r</td>
</tr>
<tr>
<td>pl. N</td>
<td>-er-es</td>
<td>-erez/-orez</td>
<td>[-rjus]</td>
</tr>
<tr>
<td>A</td>
<td>-r-ns</td>
<td>-runz</td>
<td>-runs</td>
</tr>
<tr>
<td>G</td>
<td>-r-om/*-r-om</td>
<td>-rom</td>
<td>-re</td>
</tr>
<tr>
<td>I</td>
<td>-ris</td>
<td>D -urmiz</td>
<td>(-rumiz)</td>
</tr>
</tbody>
</table>

Nominative Singular, Germanic *-er.


In his *Grammar of the Gothic language*, 2nd ed. (London, 1954), Joseph Wright claimed that the Gothic ending -ar must be from the accusative, since the long vowel *-e- could not shorten before a final consonant (pp. 38, 101). However, the evidence of other Gothic forms indicates only that long vowels did not shorten before final obstruents; the resonant r may have allowed the shortening *-er* → *-er*, just as *-æi* → *-æi, *-æu* → *-æu, *-ei* → *-ei*. See Sections 2.8; 3.1.3; 3.1.4, and compare Hermann Hirt, "Zu den germanischen Auslautgesetzen," IF 6 (1896), p. 75. Indeed, as noted by R. C. Boer, "De a van go. brobar gaat dus op een langen klinker terug. Daarom is zij ook niet gesyncopeerd" — *Oergermaansch Handboek* (Haarlem, 1924), p. 203 [italics added]. The same point was made by R. Westphal, "Das Auslautgesetz des Gotischen," ZVS 2 (1853), p. 172.

On the shortening of *-er* to *-er*, see Hermann Hirt, "Grammatische Misscellen," PBB 18 (1894), p. 276 and compare Wilhelm
Streitberg, Zur germanischen Sprachgeschichte (Strassburg, 1892), pp. 84-87. It is not yet possible to say whether this shortening was proto-Germanic or merely common Germanic.

On the change of *e to a before r in Gothic, Hirt noted: "Vor r scheint in unbetonter silbe a aus e entstanden zu sein. Es fällt auf, dass sich hier kein ir oder air findet, und so dürfte man wohl got. ufar = ahd. ubir, griech. ὑφέρ, lat. super setzen. Ebenso die Endung -tarō in aftaro = griech. -τέρω, ἀνώτερω, hwabar = griech. ποτερος, Akk. fadar = griech. πατέρα." — "Zu den germanischen Auslautsgesetzen," IF 6 (1896), pp. 75-76, note 2.

Accusative Singular, Germanic *-orum.


The forms cited by W. van Helten indicate that *-erum probably cannot be reconstructed for Germanic—"Grammatisches [LXXXVI]," PBB 36 (1910), pp. 490-491, 493. On this point, it is perhaps significant that only the o-grade is reconstructable for the Germanic n-stem accusative singular—compare Section 3.1.5 (a).

Genitive Singular, Germanic *-raz.

On the probability of o-grade in Indo-European, see Bailey, Inflectional Pattern, p. 35; Szemerényi, Einführung, p. 156.

A by-form, Germanic *-urz (< *-ęs compare Sanskrit -ur) has often been postulated to explain certain North-West Germanic forms.
See W. van Helten, "Grammatisches [LXXXVI]," PBB 36 (1910), p. 490; Hans Krahe and Wolfgang Meid, *Germanische Sprachwissenschaft*, II, *Formenlehre*, 7th ed., Sammlung Göschens bd. 780 (Berlin, 1969), p. 40. A study by George S. Lane, "The genesis of the stem vowel u(o) in the Germanic r-stems," (JEGP 50 [1951], pp. 522-528), has argued against *-urz*. According to Lane, u-forms are due to the operation of Sievers' Law, with *-ros* appearing as *-rros* (> *-uraz*) after long stems. Absence of u-forms in Gothic is to be explained by analogy (pp. 525-526).

I am attracted by Lane's explanation of the North Germanic forms, though I cannot agree that some vague analogical force has been at work in Gothic. I must ask as well why u-forms are absent from the North Germanic genitive plural, where Sievers' Law would also seem to apply. Unfortunately, I am unable to go beyond Lane's interesting hypothesis. Here I can only note that the North Germanic and Old English forms are difficult, and that Gothic appears to reflect inherited *-raz* with no observable Sievers' Law effect (compare Subsection 3.1.7, Dative Plural).

Dative Singular, Germanic *-ri*.

On the Indo-European form: Szemerényi reconstructs an e-grade mainly on the evidence of Sanskrit and Homeric Greek (*Einführung*, p. 156); Bailey argues for e-grade on page 56 of *Inflectional Pattern*, but admits a zero-grade by-form on page 123. The doublet *-ri/*-eri* was postulated for Germanic by Gustav Burghauser,* Germanische Nominalflexion auf vergleichender Grundlage* (Vienna, 1888), p. 20; and by Alois Walde, *Die germanischen Auslautgesetze*.
(Halle, 1900), p. 122. W. van Helten's study, "Grammatisches [LXXXVI]," PBB 36 (1910), p. 490, suggests that only *-ri need be reconstructed for Germanic.

It may be that pre-Germanic originally showed zero-grade of the stem formant in the genitive singular of both r- and n-stems, but e-grade in the dative. The attested paradigms with e-grade in both cases in the n-stems beside zero-grade in the r-stems might then be opposite levelings of this older pattern, though one must certainly ask why such contrary levelings should occur.

Whatever the pre-Germanic developments, the Gothic form clearly reflects Germanic *-ri. Whether or not final -r in e.g. Gothic brōpr was syllabic or non-syllabic is a question which apparently cannot be answered—see Ernst A. Ebbinghaus, "Gothic L, g, N? the evidence reviewed," JEGP 69 (1970), pp. 580-583.

Nominative Plural, Gothic -rjus.

Dative Plural, Germanic *-urmiz (*-rumiz).

The form *-urmiz is regular; *-rumiz results from metathesis. That Indo-European *£ never yielded pre-Gothic *ru has been established by Frank G. Banta, "Gothic reflexes of PIE syllabic resonants," Linguistics, 6 (1964), pp. 29-38. In addition to Banta, others who postulate metathesis include W. van Helten, "Grammatisches [LXXXVI]," PBB 36 (1910), p. 491; and George S. Lane, "The genesis of the stem vowel u(o) in the Germanic r-stems," JEGP 50 (1951), p. 524. The model for the metathesis (if one is needed) can only have been the accusative plural. North-West Germanic forms suggest that the change of *-urmiz to *-rumiz may have occurred in proto-Germanic times.
Indo-European, Germanic, and Gothic endings of the obstruent-final root stem nouns are given in the following table.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg. N -s</td>
<td>-z</td>
<td>-s</td>
<td>2.12</td>
</tr>
<tr>
<td>A -m</td>
<td>-um</td>
<td>[-∅]</td>
<td>2.5; 2.10</td>
</tr>
<tr>
<td>G -es/-os</td>
<td>-ez</td>
<td>-s</td>
<td>2.12</td>
</tr>
<tr>
<td>L -i</td>
<td>D -i</td>
<td>-∅</td>
<td>2.5</td>
</tr>
<tr>
<td>pl. N -es</td>
<td>-ez</td>
<td>-s</td>
<td>2.12</td>
</tr>
<tr>
<td>A -ns</td>
<td>-unz</td>
<td>[-s]</td>
<td>2.5; 2.12</td>
</tr>
<tr>
<td>G -om ( -öm)</td>
<td>-öm</td>
<td>-e</td>
<td>2.2; 2.3; 2.10</td>
</tr>
<tr>
<td>I -mis</td>
<td>D -miz</td>
<td>[-um]</td>
<td>3.1.1 (a)</td>
</tr>
</tbody>
</table>

Forms given as Indo-European are mostly derived from Oswald Szemerényi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970), pp. 148-149. Gothic forms are orthographic and assumed to be systematic phonetic. In Gothic, the root stem nouns are a shattered and moribund declension. Many of them have gone over to the u-stem nouns. Most of those which remain show one or more case forms imported from other declensions, typically the i-stems. The replacements and restructurings are discussed in some detail by Bernhard Kahle, *Zur Entwicklung der consonantischen*

Accusative Singular, Germanic *-um.

The ending ought to appear as -u in Gothic after monosyllabic stems. Indeed, it was the retention of -u here and in the accusative plural which led such originally root declension nouns as fotus 'foot' to become u-stem nouns. That -u is gone in such root declension nouns as baurga 'town' can only be seen as the opposite regularization of an earlier mixed paradigm. That is, a declension which was felt to be partly u-stem and partly not u-stem was necessarily unstable and could be restabilized either by making it totally a u-declension or by removing (reforming) the instrusive u-stem forms. Accusative fotu represents the one alternative, accusative baurg the other.

Genitive Singular, Germanic *-ez.

The form with e-grade is reconstructed on the basis of umlauted forms in Old Icelandic and Old English—see Wilhelm Streitberg, Urgermanische Grammatik, 4th ed. (1895; reprint, Heidelberg, 1974), pp. 248, 249. There is no evidence for an o-grade by-form in Germanic.
Accusative Plural, Germanic *-unz.

The ending should be *-uns in Gothic. As the retention of -u- in dative plural menobum would seem to indicate, the -u- of *-unz probably could not syncopate. The replacement of *-unz by *-z was probably motivated by the same forces which operated upon the accusative singular. The model for the new ending—a copy of the nominative plural—was probably the n-stem nouns. Thus W. van Helten, "Grammatisches [LXXXVIII]," PBB 36 (1910), p. 507, which see.

Dative Plural, Germanic *-miz.

The North-West Germanic dialects show -um, which could be borrowed from the o-stem nouns. Gothic dative plural menobum might be a u-stem form dating from the period when the root stem accusative singular and plural were associated with the u-declension.

In most handbooks, however, North-West Germanic -um and the -um of Gothic menobum are taken to indicate that the inherited ending *-mis had been reformed to *-umiz in Germanic times. Thus R. Bethge writes: "Die konsonantischen stämme zeigen zwischen dem stammauslaut und der kasusendung meist den vokal u; in den meisten fällen hat sich dieser wohl sekundär zu dem acc.-ausgang -unz got. -uns < idg. -ns eingestellt (nach dem muster der u-deklation)." --"Deklation des Urgermanischen" in Laut- und Formenlehre der altgermanischen Dialekte, ed. by Ferdinand Dieter (Leipzig, 1900), p. 547. M. H. Jellinek makes the same point in Geschichte der gotischen Sprache (Berlin, 1926), p. 112: "In den übrigen
Klassen waren Formen wie *menophm lautgesetzlich. Sie fügten, wie es scheint, schon urgerm. in einem gewissen Umfang vor dem -m ein u ein, wohl unter dem Einfluss des A., der damals noch auf -unz ausging, . . . ."

To the model cited by Bethge and Jellinek, I would add the r-stems, since the dative singular, accusative, genitive, and dative plural were directly comparable to the root stem declension. Since these models were available in all the Germanic dialects even after the break up of proto-Germanic, it is not necessary (though it is possible) to believe that the reformation occurred in proto-Germanic times. As with the r-stem genitive singular, there is no evidence for Sievers' Law in the Gothic root stem dative plural, though this law might serve to explain the North-West Germanic forms. Compare Gustav Burghauser, Germanische Nominalflexion auf vergleichender Grundlage (Vienna, 1888), p. 27.
SECTION 3.2

Pronouns

In the two subsections immediately below, I take up first the personal pronoun, next the pronouns with gender: demonstrative, interrogative, and anaphoric. Each subsection begins with general remarks about the particular pronominal class, then moves through a series of charts tabulating Indo-European, Germanic, and Gothic forms. Each table is followed by a discussion of forms, with some attention paid to extra-Gothic developments where these might seem to contradict the reconstructed Germanic entry. In the comparative charts, endings which seem to me to be replacements or non-phonological restructurings are enclosed in square brackets, and Gothic entries are given in Gothic orthography. Thus, for example, [meina] is \textit{not} a phonetic rendering, but indicates that the word which the Goths spelled \textit{meina} is not derived from the Germanic form by purely phonological processes.
The pronouns of the first and second person are not distinguished for gender. Furthermore, their paradigms do not reflect an established case system. As Walter Petersen has noted in his excellent article, "The inflection of Indo-European personal pronouns," (Language 6 [1930], pp. 164-193): "Attempts to reconstruct complete paradigms for IE personal pronouns fail, not because the forms have shifted in manifold ways during the development of the separate languages, but because such paradigms were not then in existence. The parent language had for these pronouns only a number of stems used either by themselves or in combination with various particles, and with little, if any, differentiation of case usage." (p. 164). As a result, it is difficult to trace the history of Gothic and Germanic forms with any certainty, and the personal pronouns are of limited value for a study of the laws of finals. Nonetheless, for what insights they do provide, the forms are discussed below. I have treated the first and second persons together, but have divided my discussion by number, ordering the three parts for purposes of exposition as singular, plural, and dual.
Table One presents the singular forms.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>first N</td>
<td>eg, (egom)</td>
<td>ek, (ekam)</td>
</tr>
<tr>
<td>A</td>
<td>me-(ge)</td>
<td>meke</td>
</tr>
<tr>
<td>G</td>
<td>me-ne</td>
<td>[meine] &gt; mīne</td>
</tr>
<tr>
<td>D</td>
<td>me-?</td>
<td>[mez]</td>
</tr>
<tr>
<td>second N</td>
<td>tu</td>
<td>ḫu</td>
</tr>
<tr>
<td>A</td>
<td>te-(ge)</td>
<td>ḫeke</td>
</tr>
<tr>
<td>G</td>
<td>te-ne</td>
<td>[ṭeine] &gt; ḫine</td>
</tr>
<tr>
<td>D</td>
<td>te-?</td>
<td>[ṭez]</td>
</tr>
</tbody>
</table>

Table One

first and second person singular pronouns

Nominative.


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Accusative.

As pointed out by Petersen (pp. 169-177), the elements *me and *te originally served to indicate any oblique case of the first and second pronouns respectively. The ending *-ge could be a particle, or it might be related to the *-g- of the nominative (as a subject marker in passive sentences?). See Petersen, p. 169, note 14; Kluge, p. 217; Kieckers, p. 136. In the second person, Gothic has extended -u- from the nominative to those forms in which Germanic showed *-e-. The first person served as the model for this reformation. See M. H. Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), p. 122; Kieckers, p. 137.

Genitive.

The genitive is built from the oblique stems *me and *te plus a particle, *-ne --Petersen, pp. 169-170. This particle had both ablative and genitive functions, as described by Gernot Schmidt, "Zu den singularischen Genetiven der idg. Personalpronomina," ZVS 82 (1968), pp. 227-250, especially 228-229. The ablative sense appears in the Germanic directional adverbs like Gothic utan, Old Icelandic utan, Old Saxon, Old English utan(e), Old High German uzan(a) 'from outside', and also in such comparative constructions as Gothic bana mais 'still, further'. On the latter, see Ingerid Dal, "Die germanischen Pronominalkasus mit n-Formans," Untersuchungen zur germanischen und deutschen Sprachgeschichte (Oslo, 1971), pp. 86-128. The genitive sense of *-ne appears in the genitive of the personal pronouns and throughout the possessive pronoun meins, etc.

All of the Germanic dialects show that the inherited genitives
*mene and *tene of the personal pronoun were reformed to *meine and *teine (> *mîne and pîne) by their association with the possessive—see Schmidt, pp. 228-229.

The final -a which appears in Gothic meina and heina (and in the corresponding dual and plural forms) has long been a problem. Karl Brugmann believed that it was historically the ending of the neuter nominative-accusative plural of the possessive pronoun—"Der gotische Genitivus Pluralis auf -e," IF 33 (1913/1914), p. 276. Many others have expressed the same idea, though frequently with reservations about its plausibility. See Joseph Wright, Grammar of the Gothic language, 2nd ed. (London, 1954), p. 121; R. C. Boer, Oergermaansch Handboek, p. 220; Hermann Hirt, Handbuch des Urgermanischen, Teil II, Stammbildungs- und Flexionslehre (Heidelberg, 1932), p. 75; Hans Krahe and Wolfgang Meid, Germanische Sprachwissenschaft, II, p. 52. In explaining the transfer from possessive pronoun to personal pronoun, Ernst Kieckers wrote: "Urgerm. wurde eine Verbindung wie *wurðam minam —or any other case — was reinterpreted as 'a word of me'. One must ask, then, why the accusative plural was singled out as the new genitive marker. Until this question is answered, it would appear that the hesitancy of many who have repeated the neuter plural explanation is well founded—there seems nothing to support the theory.

Gernot Schmidt has claimed that the Gothic final vowel reflects Germanic *-ē, a lengthened grade of the inherited genitive-ablative

*
morpheme *-ne. In "Zu den singularischen Genetiven der idg. Personalpronominen," ZVS 82 (1968), pp. 227-250, he writes: "Auf vor-germ. *meine lässt sich got. meina (=ahd. usw. min; gleich gebildet got. peina, seina = ahd. din, sin) zurückführen. Ebenfalls altes -ne enthalten Adverbien ablativischer Bedeutung wie ahd. dana 'von da', got. bana-mais 'weiter', ahd. hina 'von hier'." (p. 228). But there are serious problems with this explanation. First, Gothic stands alone with its final vowel in meina etc., and it is not likely that this reflects a Germanic ending. Secondly, final long *-e ought to yield not -a, but -i in Old High German and the other dialects (see Sections 2.6, 3.1.4, and elsewhere). Finally, the particle *-ne appears with and without a final vowel in every Germanic dialect. Thus Gothic meina, ūtana, but bana beside ban; Old High German dana but mīn, and ûzana beside ūzan; Old English mīn, but bone beside bon, and ūtane beside ūtan; and so on. Such variability should make us hesitate to propose that Gothic meina is phonologically regular. Schmidt has performed a great service, however, in stressing the historical relationship of the genitive meina, peina etc. to the ablative bana and the directional adverbs like ūtana. I hope to show below that this is one of several crucial links in the explication of the Gothic pronominal genitive.

Much of the rest of the argument was drawn by Frederic T. Wood in his article, "The genitive cases of the Gothic personal pronouns," GR 8 (1933), pp. 278-280. On page 279, Wood writes:

The affixation of particles to pronominal forms is not of course confined to the personal pronouns. In Gothic, which
is peculiarly rich in these compound forms, a particle *-on (from IE *-om) appears in the demonstrative pronouns ita, bata (nom. acc. sing. ntr.), ina, bana (acc. sing. masc.). The same particle exists also in OE bone, OS. thana, thene (=Goth. bana), in OE hwone, OS hwene (=Goth. hwana) and likewise in the Greek personal pronoun εγώ = OHG ihha. It is evidently the lengthened grade of the particle IE *-om in Skt. ahām, idām, imām. But the comparison Skt. imam = Goth. ina makes probable the assumption that the particle was not added in Germanic until after -m had become -n.

It is not the nom. acc. pl. ntr. ending -a but the particle *-om (Germ. *-on) that I see in the Gothic personal pronouns meina, beina, unsara, etc.

There are several parts of Wood's description which call for additional comment. First, the particle was not necessarily added after *-m had become *-n in Germanic. Rather, ina may derive from *imām by nasal dissimilation, as noted by Hermann Hirt, Handbuch des Urgermanischen, Teil II, Stambildungs- und Flexionslehre (Heidelberg, 1932), p. 83. Compare also W. van Helten, "Zur gotischen Grammatik," IF 14 (1903), p. 82. Secondly, the qualitative theory of Germanic long vowels in final syllables requires us to reconstruct not *-om but *-am for the final vowel of Gothic bana, Old High German dana, Old English bone. Finally, Wood does not explain how a particle which turns up in the accusative of demonstrative pronouns got added as well to the genitive of the person pronoun. This last link, however, is perhaps provided by the identity of the masculine

In Germanic, the forms were accusative *banäm, ablative *bane. It is possible that, when the ablative reduced to *ban by loss of *-e in absolute finality, it was renewed as *banā, with -ā from the accusative due to the identity of *ban with the accusative stem *-ban-. (It will be noted in Subsection 3.2.2 that the accusative may have had the doublet forms *banā and *ban at this stage, which would make the renewal of the ablative more plausible.) That Gothic ban and Old English bon appear as by-forms in the Gothic and Old English ablative (but not in the accusative) indicates only that the transfer was not complete at the separation of the Germanic dialects. That Old High German has accusative den, ablative dana suggests only that den is a later replacement. The form dana is historically correct not only for the (renewed) ablative, but also for the accusative.

From the ablative *ban(̄ā), the renewal spread to the historically and functionally identical ending of the directional adverbs. Gothic shows only the renewed ending. Old English, Old Saxon, and Old High German all show both renewed and unrenewed forms, e.g. Old English utan, utane. For Old English, at least, this variation should be compared with the identical variation in the demonstrative ablative bon, bone (see above).

As Schmidt has suggested, the renewal spread as well from the ablative and ablatival adverbs to the historically identical genitive singular of the personal pronoun. That only Gothic carried the extension this far indicates perhaps that realization of the semantic
identity of the n-ablative and the genitive of the personal pronoun was fading at about the time the proto-Germanic speech community was breaking up.

The weakest link in the argument set out above is the connection between the accusative and the ablative. Nonetheless, such a connection seems reasonable when we note that the attested ablative ending must be reconstructed as *-nām, and that an identical ending must also be reconstructed in the pronominal accusative. It is possible that the renewal of the ablative was abetted by syntactic factors which cannot be explored here. One might also speculate about the prior existence of a doublet in the accusative, i.e. *banam/*banām which would reduce to *ban/*banā, the first member thus falling in with the ablative *ban (< *bān) (see Subsection 3.2.2, masculine accusative). Thence the doublet spread to the ablative, while the longer form was stabilized in the accusative.

An alternative view, which may be worthy of further consideration, was offered by Francis A. Wood, "Morphological Notes," SP 20 (1923), p. 108: "This Germ. ending [of the adverbs in -na --AWJ] probably came from pre-Germ. -nām, the acc. sing. fem. of the pronoun stem no-, corresponding to Lat. nam 'for.' Compare also such formations as Skt. vī-nā 'ausser, ohne,' nū-nām 'now,' Lat. superne, pōne, etc. . . . It was attached first to other pronominal stems as in Goth. bana-, OHG. hina, then to other adverbial forms, and finally to nominal stems as in OHG ōstana 'from the east,' westana 'from the west,' etc." It seems to me that *-nē (ablative) as a starting point is better supported (by Schmidt and Dal), but there is certainly room for another opinion.
Dative.

The stem is *me, *te — originally any oblique case. The final *-z of the Germanic form is completely mysterious. Some scholars have suggested tentatively that it might come from the dative plural form; see, for example, Streitberg, *Urgermanische Grammatik*, p. 262. In his *Handbuch der vergleichende gotischen Grammatik*, Ernst Kieckers wrote: "Vielleicht steckt in dem -s ( -z) [of the dative — AWJ] eine hervorhebende (demonstrative) Partikel; dann kann man umbr. se-so 'sich' = lat. sibi vergleichen. Weniger wahrscheinlich scheint mir, dass das -s aus dem Plural Uibernommen ist." (p. 135). Kieckers may be right; or Streitberg. I have nothing better to present.

3.2.1 (b) The plural

Table Two gives the plural forms of the first and second person pronouns, insofar as these forms can be determined.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>first N</td>
<td>wei(s)</td>
<td>weiz &gt; wīz</td>
</tr>
<tr>
<td>A-D</td>
<td>ns-, nōs</td>
<td>unsez</td>
</tr>
<tr>
<td>G</td>
<td>?</td>
<td>uns-</td>
</tr>
<tr>
<td>second N</td>
<td>jū(s)</td>
<td>jūz</td>
</tr>
<tr>
<td>A-D</td>
<td>us-, wōs</td>
<td>[izwez]</td>
</tr>
<tr>
<td>G</td>
<td>?</td>
<td>[izwer-]</td>
</tr>
</tbody>
</table>

Table Two

first and second person plural pronouns
Nominative.

The first person nominative plural, Gothic weis, is usually derived from Indo-European asigmatic *wei. See Streitberg, Urgermanische Grammatik, p. 262; Kluge, Urgermanisch, p. 218; Boer, Oergermaansch Handboek, p. 221; Kieckers, Handbuch der vergleichende gotischen Grammatik, p. 136. Kluge derives the Germanic *-z from the nominative plural marker of nouns (p. 218), Kieckers takes it from the second person pronoun, *juz, while Petersen, "The inflection of Indo-European personal pronouns," pp. 178-179, suggests that it may have come from the oblique cases (cf. Germanic *unz). Petersen also cites evidence to show that both *wei and *weis existed in Indo-European.

There is little question about the second person nominative plural—see Jellinek, Geschichte der gotischen Sprache, p. 122; Petersen, p. 181. North-West Germanic reformed the second person nominative, perhaps on the model of the first person. See Streitberg, p. 265; Kluge, p. 218; Kieckers, p. 136; Petersen, pp. 181-182. Petersen notes that there may have been an asigmatic form as well.

Accusative-Dative.

The first person forms are perhaps universally derived from Germanic *uns (*unz). For discussion, see Streitberg, p. 263; Kluge, p. 218; Boer, p. 221; Kieckers, p. 136; Petersen, pp. 179, 180. Gothic unsis beside uns is supposed to show the influence of the singular dative mis, just as Old High German unsih shows the influence of the accusative singular mih. Thus Streitberg, p. 263;
Kluge, p. 218; Kieckers, p. 136. (On uns, see further below.)

Unfortunately, the second person forms are extremely difficult. Streitberg (p. 265) and Kieckers (p. 136) derive them from Indo-European *e-(s)wes, where *e- is a particle, and *(s)wes is the e-grade of an element attested elsewhere as *wōs. Petersen notes, however, that there is no good evidence for an e-grade in *wōs (pp. 183, 184).

Petersen's own explanation is very complex and only partly persuasive. He postulates that, beside nominative *jūz, there existed an accusative *uz, the zero grade of *wōs (pp. 181, 182). Accusative *uz picked up a prothetic *j- from the nominative (p. 181). In Germanic— not North-West Germanic— times, nominative *jūz was reformed to *jez by the influence of the first person (p. 181) [despite the fact that the first person form showed not *e- but *ei- (p. 179) --AWJ]. Then, from *jez beside *jūz, was created *ez beside *uz. On page 183, Petersen postulates that the Germanic second person nominative forms were *ju(z) and *ez, the latter having been created as just described. [The form *jez has been forgotten; *ez has been promoted from accusative to nominative— or perhaps *jez has lost its *j- (see p. 181) --AWJ]. Next, *jū(z) and *ez were conflated to produce *eju [not *eju, or perhaps *e was viewed as a case ending (?) --AWJ]. The stem, now *(e)jū, was extended by the endings of the singular, accusative ik [or -ek? --AWJ], dative is [or -ez? --AWJ], to produce *(e)juwik, *(e)juwis in which -w- appears as an automatic glide. What should have appeared as Gothic *juwis developed a by-form izwis because *iz existed in the nominative beside *jūz. Though Petersen does not say so, one
must next believe that Gothic lost the nominative *iz which had
motivated izwis, while keeping the nominative *juz but abandoning
its corresponding oblique form *juwis. Old High German is supposed
to have made exactly the opposite selection.

Petersen's ingenious proposal does not convince me. I would
note that much of it seems designed to avoid the form *wes, for which
Petersen can find no extra-Germanic evidence. But one need not look
beyond Germanic to renew inherited *wos in the plural dative-accusative
according to the singular dative-accusative. Compare the forms:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>ḫū</td>
<td>jū-s</td>
</tr>
<tr>
<td>AD</td>
<td>ḫ-e-</td>
<td>ḫ-wō-z → we-z</td>
</tr>
</tbody>
</table>

Nor need one postulate the conflation of two nominatives (*ez and
*jū) to get a vowel before the w of *wez. At a time when j and ḫ
were still allophones, extension of initial *j- from the nominative
to the oblique cases would automatically yield *i-. Compare:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>ḫ-ū</td>
<td>j-ū-z</td>
</tr>
<tr>
<td>AD</td>
<td>ḫ-e-</td>
<td>j-we-z → iwez</td>
</tr>
</tbody>
</table>

(This proposal will be rejected below).

In the Gothic dative-accusative, izwis, the problem is the medial
-z-. R. C. Boer (Oergermaansch Handboek, p. 221) suggests that an
earlier *iuwis [or perhaps *iwiz, as described above —AWJ] might
have been reformed to *izwis under the influence of the first person
form unsis. But if unsis were the model, one would expect not *izwiz
but *inzwiz as the reformation of earlier *iwiz (*iuwiz). The difference ns - nz might reflect Verner's law in that *üns → *ünsiz, *wös → *iwës → *inzwëz.

Interestingly enough, Adolf Noreen speculated that *inzwiz might have been the form reflected in the curious Old Icelandic dative-accusative ybr --Altnordische Grammatik I (Altisländische und altnorwegische Grammatik), 4th ed. (1923; reprint, University of Alabama Press, 1970). On page 190, in a note to his discussion of the rule nnr > ðr, Noreen writes: "Ob das auffallende ybr (got. izwis) euch hierher gehört, indem es ein nach unsis umgebildetes *inzwiz > *innwiR > *ynnr [> ybr -- AWJ] voraussetzt? Ebenso entspräche ybrum einem nach unsaramma umbegildeten *inzwaramma, und ybuarr wäre dazu neugebildet statt *ynnwarr."

If Old Icelandic lends some credence to the proto-form *inzwiz, it remains to be asked whether or not the same form can be reflected in Gothic. One might think at first that the triconsonantal cluster *-nzw- has simplified to *-zw- (*inzwiz > *izwiz), just as, later, the genitive *mannz (< *mannez) simplified to mans 'of a man'. Unfortunately, the dual form igqis (= inkwis) makes this seem unlikely, and the discussion of consonant loss presented by Ernst Kieckers (Handbuch der vergleichende gotischen Grammatik, pp. 81-82) only adds to the doubt. It is also difficult to believe that the parallelism *inzwiz - *unsiz, once established, could be undone by some later analogy. Rather, it is somewhat more likely that Icelandic created the *inzwis - *unsiz parallel by reforming an inherited *izwiz, and that this *izwiz, in both Gothic and Icelandic, does not owe its
medial -z- to the first person form unsis. It appears, therefore, that the possible proto-form *iwez cannot explain the Gothic and North Germanic pronouns.

Perhaps a broader comparative approach will yield more plausible speculations. In Sankrit, the first person dative plural is either nas or asmābhyaṃ, where initial as- of the latter probably represents older *ns, the zero-grade of nas. Recall that this zero-grade is the basis of the attested Germanic forms. As appears in Petersen's discussion of the Germanic dual, it is likely that the full-grade form *nos also existed in pre-Germanic.

In the Sanskrit second person plural, the dative forms are vas beside yusmābhyaṃ, where initial yus- in the latter represents *us the zero-grade of vas, with y extended from the nominative. Sanskrit vas is the correspondant to the form *wos/*wes which has occupied us above. Let us here speculate that pre-Germanic, like Sanskrit, showed both full and zero-grades of the forms *nos and *wos. Let us further speculate that the full-grade forms showed *-e- after the singular (compare above), that the zero-grade forms appeared only with a suffix (perhaps *-es from the singular dative or from full grade *wes, *nes), and further that the second person zero-grade had been extended by *j- from the nominative as in Sanskrit (compare Petersen above). This would yield the pre-Germanic sets shown below:

<table>
<thead>
<tr>
<th></th>
<th>first person</th>
<th>second person</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>wēis</td>
<td>jus</td>
</tr>
<tr>
<td>oblique</td>
<td>nēs ūnses</td>
<td>wēs jūses</td>
</tr>
</tbody>
</table>

Now let us return to Petersen's idea that the oblique forms
represent a conflation of stems. If we consider *-es an ending, the oblique stems are:

<table>
<thead>
<tr>
<th></th>
<th>first person</th>
<th>second person</th>
</tr>
</thead>
<tbody>
<tr>
<td>uns</td>
<td>-es</td>
<td>jús -es</td>
</tr>
<tr>
<td>n</td>
<td>-ēs</td>
<td>w -ēs</td>
</tr>
</tbody>
</table>

In the first person, the stem *n- appears as well in the stem *uns-.
In the second person, however, the stem *w- (non-syllabic) is not exactly matched by the syllabic *-u- of *jús-. It is perhaps not impossible that the seeming relationship of *n- and *uns- led to the creation of *isw (by metathesis of *-us-) to reflect a similar relationship in the second person forms (*iswes, *wes, with non-syllabic w in both). The new form *iswes, from the conflation of *júses and *wés, could probably only have been accented *iswēs, hence *izwēz by Verner's law. After the period of conflation, the short stem forms *nes and *wes were both lost (with satisfying parallelism).

The second person form *izwēz appears to be reflected in Gothic and North Germanic (*izwēz renewed to *inzwez in the latter). In the seeming absence of countering evidence, the West Germanic forms might be most directly explained as due to an assimilation, *-zw- > -ww-. For the time being, at least, I will postulate that the second person form inherited by Gothic was, indeed, *izwēz.

In Gothic, inherited *izwēz (or *izwiz) should have lost its second vowel to become *izus. If it did, then the form was restored to izwis with -is ultimately from the first person dative singular mis. The same form (izwis) appears as accusative since, in all the Germanic languages, there is but a single form for the dative-.
accusative in the dual and plural of the personal pronouns. The form uns which appears beside unsis in the Gothic first person dative-accusative is probably a late shortening of unsis under the influence of the masculine nominal accusative plural. That is, uns beside e.g. dagans, gastins, fotuns. Of the four dual and plural dative-accusatives, only unsis/uns has the ns cluster, and only unsis has a by-form without final -is.

Genitive.

In all the Germanic languages, the stem of the second person genitive is that which appears as well in the dative-accusative. In Gothic and Old High German, at least, this is true for the first person as well. The element -r- (-ero- ?) appears in all the languages and is evidently the reflex of an Indo-European morpheme. See Kluge, p. 216; Petersen, pp. 180, 182. Final -a in Gothic unsara, izwara is probably from the singular (see 3.2.1 (a)).
3.2.1 (c) The dual pronouns.

Table Three gives the Germanic and Gothic forms of the first and second person pronominal dual.

<table>
<thead>
<tr>
<th></th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>first</td>
<td>N</td>
<td>wet-</td>
</tr>
<tr>
<td>A-D</td>
<td>unkis</td>
<td>[ugkis]</td>
</tr>
<tr>
<td>G</td>
<td>unker-</td>
<td>[ugkara]</td>
</tr>
<tr>
<td>second</td>
<td>N</td>
<td>jet- (?)</td>
</tr>
<tr>
<td>A-D</td>
<td>ink-</td>
<td>[igqis]</td>
</tr>
<tr>
<td>G</td>
<td>ink-</td>
<td>[igqara]</td>
</tr>
</tbody>
</table>

Table Three

first and second person dual pronouns

Nominative.

The first person nominative contains the stem element *we~. Final *-t is a problem. Wilhelm Streitberg, *Urgermanische Grammatik*, p. 264, and R. Bethge, "Deklination des Urgermanischen," in *Laut- und Formenlehre der altgermanischen Dialekte*, ed. Ferdinand Dieter (Leipzig, 1900), p. 550, derive it from *-d, an explanation which has found no favor. F. Holthausen, "Wortdeutungen," IF 39 (1921), p. 67, suggests *-de. Wilhelm Horn, "Zu IF. 39, 67: got. wit 'wir beide'." IF 39 (1921), p. 231, notes that Holthausen's explanation is phonologically possible, but that it fails to explain the dual function. Most other scholars have compared Lithuanian vėdu and derived the Germanic form from *we plus the word for 'two', *dwo*. A. Meillet, "Notes sur quelques forms indo-européennes,"
MSL 13 (1905/1906), pp. 208-209, and Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik, p. 136, note that final *-o could not be lost, and they therefore suggest *we + dwo. Final short *-o is lost regularly, and Meillet - Kieckers propose that final *-w is lost after voiceless (Germanic) *-t in absolute finality. They compare Latin neque, Gothic nih to support their proposal.

Boer, Oergermaansch Handboek, p. 221, objects, citing Gothic gaidw and biwadw, which are not good counterexamples (see Section 2.9). Better is sahw 'he saw' beside nih. For *witw-, one would still expect *witu. So far as I can see, final *-t remains mysterious.

The second person nominative dual is not attested Gothic. It is, however, almost universally assumed to have been *jut, on the basis of first person plural weis : dual wit :: second person plural jus : dual *jut. As noted by Petersen, however, "It is impossible from a priori considerations to determine whether the associations between the second dual and the second plural jus were stronger or weaker than between the second dual and the first dual wit, and if the latter were predominant, Goth. *jut is more probable than *jut."-- "The dual personal pronouns in Germanic," JEGP 33 (1934), p. 66.

Petersen goes on to argue that nominative *jut is implied by the developments of the oblique forms. *jut, not *jut, is reflected in North Germanic and Old English as well. I tentatively accept Petersen's argument from oblique forms as supported by North-West Germanic, yet I would stress that the Gothic form is not attested.
Accusative-Dative.

The first person stem is from Indo-European *n, plus *-g-, which probably has some relationship to the *-g- which appears in the accusative singular. See Streitberg, p. 264; Bethge, p. 550; Kieckers, p. 136. C. M. Lotspeich, "Notes on the personal pronouns in Germanic," JEGP 30 (1931), p. 150, and Walter Petersen (1934) pp. 64-65, note that Germanic shows first plural oblique *ns-, dual oblique *n- where other Indo-European languages show nos and no. In Gothic, the stem *unk- was extended with the ending of the dative-accusative plural. That is, dual and plural are distinguished by stem alone.

Francis A. Wood, "Morphological Notes," SP 20 (1923), p. 109, noted that the second person stem *ink- had been modeled on first person *unk- and similarly extended with the plural endings (*-wis). Lotspeich (p. 150) explained the creation of the second person dual oblique stem through the proportional analogy wit : unk :: jut : ink. Petersen (1934, p. 66) comments on this as follows: "It will be seen at once that Mr. Lotspeich is here close to a real solution of the puzzling problem, but also that the proportion is impossible as it stands, for *yet (wit) and *ju-t are parallel in no way except that they both end in -t. But the moment we assume pre-Germanic *iit (< *ie-t) instead of *iut, the proportion, although still subtle, is perfect: *yet (wit) : *un-k *jet (jit) : *in-k."

Genitive.

As in the plural, the genitive has the stem of the dative-accusative. Like the dative-accusative dual, the genitive dual draws
its ending (-\textit{wara}) from the plural.
SUBSECTION 3.2.2

The pronouns with gender:

demonstrative, interrogative, anaphoric

Like the pronouns of the first and second person, the pronouns with gender reflect a variety of Indo-European stem elements, including: *so- *te-/*to-, *kw e-/*kWo ~ , *ke-/*ko~, and *i-/*ei/*oi-. They resemble the personal pronouns as well in reflecting a number of stem extensions and endings which do not appear in nominal declension (compare e.g. the masculine nominative plural demonstrative *bai, or the masculine accusative singular *banām). However, the endings of the pronouns with gender are more often noun-like than not, and, in addition, they seem to reflect a more nearly established Indo-European system than do the personal pronouns.

For Germanic, or at least for pre-Gothic, the three main pronouns with gender are the demonstrative, interrogative, and anaphoric. Other pronominal declensions follow one of these or the adjective and provide little additional evidence for diachronic phonology. Of the three main declensions, each has influenced the others in a variety of ways, though the anaphoric pronoun is frequently viewed as the least stable, and therefore the least influential. In part, its mutability may be due to the fact that it was the only one of the three whose stem(s) did not begin with a consonant. Thus Gothic and Old High German show a renewal of the feminine nominative singular to Germanic *sī (contrast Sanskrit iyām). This renewal is based

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on the Germanic demonstrative *sa and the parallel of the two feminine derivations (*-a- or *-i-) from masculine o-stems (compare Sections 3.1.5 (b) and 3.1.2 (b)). Old English has restemmed the entire anaphoric declension from the Indo-European stem element *ke-/*ko-. Even so, if one removes the Old English initial h-, the resulting forms are almost exactly cognate with the Old High German anaphoric: he with er, hine with ina(n), his with is, him with im, and so on. (One must allow, of course, for certain language specific changes described in Chapter Two.)

Though the anaphoric pronoun has undergone a variety or renewals, it has not been without its own influence. Germanic scholars not aware of the general voicing of final spirants proposed by Hirt and discussed in Section 2.12 above have long been faced by a problem in such forms as the demonstrative feminine genitive singular *bezaz. If Indo-European *s voiced only when the accent was not on the immediately preceding vowel, how could both *s's voice in *bezaz? That is, where was the accent? Some have speculated that the demonstrative was at times unstressed in connected discourse, and that this unstressed form came to replace all others. With Hirt's theory, however, we need not rely on this replacement. Indeed, we can resolve the immediate difficulty be deriving *bezaz regularly from *tesas. Here, though, we meet another problem, for the stress of pre-Germanic *tesas is directly at odds with Sanskrit aṣyas. This difficulty, however, is considerably lessened when we compare the anaphoric forms, Germanic *izaz < *isas, Sanskrit aṣyas. That is, pre-Germanic and Sankrit seem to agree in the peculiar accentuation of the anaphoric pronoun, an accentual pattern which pre-Germanic
seems to have generalized to the other pronominal declensions. (See below under genitive singular.)

I have focused on the anaphoric pronoun in this introduction merely to highlight the give and take engaged in by all three of the pronouns with gender. Many other examples will appear in the discussion of case forms which follows. To facilitate the consideration of mutual influences, I chart below all three pronouns in all three genders for each case (except the instrumental, which I have discussed in Chapter Two). Following each table, I discuss the forms displayed and their development.

<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>masculine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>so</td>
<td>sa</td>
<td>sa</td>
</tr>
<tr>
<td>interrogative</td>
<td>kₖ'is, kₖ'os</td>
<td>hwaz</td>
<td>hwas</td>
</tr>
<tr>
<td>anaphoric</td>
<td>is</td>
<td>iz, [ez] ?</td>
<td>is</td>
</tr>
<tr>
<td><strong>neuter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tod</td>
<td>þat</td>
<td>[þata]</td>
</tr>
<tr>
<td>interrogative</td>
<td>kₚ'id, kₚ'om</td>
<td>hwam</td>
<td>hwa</td>
</tr>
<tr>
<td>anaphoric</td>
<td>id</td>
<td>it</td>
<td>[ita]</td>
</tr>
<tr>
<td><strong>feminine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>sa</td>
<td>sa</td>
<td>so</td>
</tr>
<tr>
<td>interrogative</td>
<td>kₖ'is, kₖ'a</td>
<td>hwₐ</td>
<td>hw₀</td>
</tr>
<tr>
<td>anaphoric</td>
<td>ɨ (&lt; iH)</td>
<td>[sɨ]</td>
<td>[si]</td>
</tr>
</tbody>
</table>

Table One: nominative singular
Nominative Singular.

The Indo-European demonstrative forms are drawn from Oswald Szemerényi's *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970), pp. 187-189. There is no controversy about their development in Germanic. The Gothic forms frata and ita are replacements of earlier *bat* and *it* and will be discussed under the accusative.

The Indo-European interrogative forms *kwis* and *kwid* are also derived from Szemerényi (pp. 192-195). It should be noted here, however, that the interrogative declension reconstructed by Szemerényi is almost identical to his reconstructed anaphoric declension prefixed by *kw-. This does not, of course, lessen the validity of the reconstruction, but should serve to point up a close connection between the anaphoric and interrogative pronouns. Latin *quod* beside *quid*, and the agreement of oblique interrogative forms in both Sanskrit and Gothic with the oblique inflection of the *so-/*to- demonstrative point to a close connection between the interrogative and the other of the two old demonstrative systems. That is, the interrogative stem *kw- seemingly occupied a central position in the pronominal triad, and could apparently form its oblique cases according to either the anaphoric or the demonstrative pattern. To put it another way, the interrogative is a morphological transformation of the demonstrative, and either of the two available demonstratives could serve as its base in oblique forms.

Sanskrit and Gothic agree in reflecting what may be an archaism in the nominative and accusative singular of the interrogative. Thus compare nominative masculine, Sanskrit kás, Gothic hwaz; feminine,
Sanskrit का, Gothic hwo. These forms show endings appropriate to the o-/a-stem nouns and adjectives, and one would expect a corresponding neuter nominative *kwa. In Section 2.10, it was argued that Gothic hwa, Old Icelandic hva (beside more common hvat) reflect just this form, which should be compared not directly with Sanskrit neuter kām, but rather with masculine accusative kām. Recall that, in the o-stem inflection, masculine accusative singular equals neuter nominative-accusative singular (see Szemerényi, p. 171).

In The Inflectional Categories of Indo-European (Heidelberg, 1964), Jerzy Kurylowicz described the mechanism necessary to explain the Sanskrit and Gothic endings. On page 209 he writes: "The influence of the pronominal declension upon the noun and vice versa, as suggested for the morphemes -s and -m, has its analogies in the historical languages, an outstanding example being the inflection of the adjective in Germanic and Baltic. . . . It seems certain that the intermediate link must be looked for among pronominal adjective. The chief semantic shift involving the spread of the pronominal inflection is which (pronominal adjective correlational to this) to what sort of (real adjective correlational to such: big, small, red, white, and so on). . . ." That is, the Germanic adjectival endings are most immediately from the interrogative (-relative) and only agree with the *so-/*to- demonstrative for the accidental reason that Germanic modeled the oblique forms of the interrogative on that demonstrative rather than on the anaphoric.

The fundamental distinction between the Germanic demonstrative (pure pronoun) and the interrogative (hybrid pronoun-adjective) in the nominative has often been overlooked in the past. Important
consequences of the distinction have been discussed in Sections 2.7 and 2.10 of the present study.

The Indo-European forms of the anaphoric pronoun are also taken from Szemerényi (pp. 181-191). I have postulated a possible replacement of the masculine *is by *ez in Germanic on the basis of Old High German er, Old English he (< *her < *er?). The vowel e was perhaps extended from oblique case forms in pre-Germanic times. This replacement may, however, be limited to West Germanic, since Gothic can reflect either *iz or *ez.

The reformation of feminine *i_ to *si was discussed in the introductory remarks to this subsection. Compare also Hermann Hirt, "Zur Endung des Gen. Sing. der Pronomina," IF 2 (1893), p. 131 and "Zu den germanischen Auslautgesetzen," IF 6 (1896), p. 64. If the Germanic form actually was *si, then the short i of Gothic si is irregular (compare the preservation of length in Gothic so). It may be due to an inflectional association with the long-stem ja-nouns (see Section 3.1.2 (b)): si, ija like bandi, bandja (phonetic [bandija]). No similar influence of the a-stems on the so/po pronoun occurred because no inflectional identity was maintained in the accusative. Contrast po, giba with ija, [bandija]. Other associations between the feminine anaphoric and the old jH feminine nouns will appear below.
### Table Two: accusative singular

<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>masculine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tom</td>
<td>[pan̂am]</td>
<td>pana</td>
</tr>
<tr>
<td>interrogative</td>
<td>kʷim, (kʷom)</td>
<td>[hwanâm]</td>
<td>hwana</td>
</tr>
<tr>
<td>anaphoric</td>
<td>im</td>
<td>[in̂am]</td>
<td>ina</td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>neuter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tod</td>
<td>ḫat</td>
<td>[pata]</td>
</tr>
<tr>
<td>interrogative</td>
<td>kʷid, (kʷom)</td>
<td>hwam</td>
<td>hwa</td>
</tr>
<tr>
<td>anaphoric</td>
<td>id</td>
<td>it</td>
<td>[ita]</td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>feminine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tām</td>
<td>ḫām</td>
<td>ḫō</td>
</tr>
<tr>
<td>interrogative</td>
<td>kʷim, (kʷām)</td>
<td>hwām</td>
<td>hwo</td>
</tr>
<tr>
<td>anaphoric</td>
<td>iym (iHn̂)</td>
<td>ija</td>
<td></td>
</tr>
</tbody>
</table>

Accusative singular.

The Indo-European forms *tom, *kʷim, *im; *tod, *kʷid, *id; *tām, *kʷim, *iym are taken from Szemerényi as cited above in the discussion of nominative forms. The origin of the interrogative by-forms *kʷom and *kʷam has also been alluded to above: in Sanskrit and Germanic, the nominative and accusative singular of the interrogative followed the o-/ā-stem inflection of nouns and adjectives.

The expanded ending *-(n)ām (< *(m)ām), which appears in the pronominal masculine accusative of all Germanic dialects, has long been a problem. Arguments against its derivation from an Indo-
European postposition governing the accusative were presented in Section 2.10. Compare the remarks of W. van Helten in "Zur gotischen Grammatik," IF 14 (1903), p. 82:

Zu \textit{ina}, \textit{ita}, \textit{hana}, \textit{bata} usw. Zurückführung des \textit{-a} dieser Formen auf \textit{-o}, das, nachdem auslautendes \textit{-m} zu \textit{-n} geworden war, an das Pronom angetreten wäre, ist zu beanstanden, weil die Existenz einer solchen deiktischen Partikel problematischer Natur ist. Mit Recht beansprucht darum Hirt PBrB. 18, 298 ff. für besagte Bildungen prototypen mit idg. stammerweiterndem Element. Nur dürfte das von ihm angesetzte \textit{-em} nicht das Richtige treffen; denn abgesehen davon, dass dieses \textit{-em} nirgendwo nachgewiesen ist, so widerspricht dieser Annahme ganz entschieden das \textit{-o} von \textit{ainnōhun}, \textit{hwarjanōh}, \textit{-atōh}, \textit{hwanōh}. Die richtigen Prototypen sind \textit{*imom}, \textit{*idom}, \textit{*tomom} usw., die sich zu \textit{aid. imam}, \textit{idam} verhalten, wie \textit{'cyūv} zu \textit{aid. ahām}, und für die prähistorische Periode \textit{germ. *inon}, \textit{*banon} oder \textit{*bonon} usw. (inlautendes \textit{n} für \textit{m} durch Anlehnung an \textit{*in}, \textit{*ban} oder \textit{*bon} usw. aus \textit{*im}, \textit{*bom} vgl. Hirt a.a.O. 299) ergeben konnten mit (aus \textit{'cyūv} zu folgenderem) stossstonigen \textit{-on}, dem, wie im Akk. \textit{giba}, \textit{jugga}, in der 1. sg. Praet. \textit{-da}, historisches \textit{-a} entsprechen musste.

Similarly Ernst Kieckers, \textit{Handbuch der vergleichende gotischen Grammatik}, 2nd ed. (1927; reprint, Munich, 1960), p. 140; "Got. \textit{ban-a} kann aus urgerm. \textit{*ban-ō} (mit stossstonigem \textit{ō}) erklärt werden; das \textit{-ō} ist entweder eine deiktische Partikel oder eine Postposition, die im Ai. \textit{ā} lautet, als Postposition c. acc. 'zu-hin', c. loc. 'auf'
bedeuted. Besser aber nimmt man als urgerm. *bhan-t-ə (mit stosstonigen -on) an, indem die Akkusativendung noch einmal antrat; nur so lassen such ae. bone, as. thana damit vereinigen . . .


Helten and Kieckers worked with a quantitative theory of Germanic final syllables which permitted them to reconstruct Germanic *-ōm and to make the comparison with Greek ἵγον. Under the qualitative theory adopted above in Section 2.2, we must reconstruct not *-ōm but *-ām, and must also give up the comparison with Greek. Under either theory, however, the pronominal masculine accusative ending agrees with the ending of the feminine ā-stem accusative singular throughout Germanic. This peculiar fact suggests that we might be dealing with an original common gender versus neuter distinction in Indo-European. Unfortunately, while one might make a case for the common versus neuter distinction in early Indo-European, it unlikely that an original common accusative ending would have been *-ām (< *'-ōm) in agreement with the later derivational feminine ending.

Among the three pronominal declensions considered here, Sanskrit shows an expanded (doubled) masculine accusative only in the anaphoric pronoun: thus imām beside tām and kām. This suggests that a key to the Germanic developments might be sought in the history of the anaphoric pronoun. Since the Germanic expanded masculine accusative
agrees in form with a feminine ending, we ought to examine both the masculine and feminine forms. I believe the original forms may have been those shown below.

<table>
<thead>
<tr>
<th></th>
<th>masculine</th>
<th>feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>*is</td>
<td>*ī (&lt; *iH)</td>
</tr>
<tr>
<td>accusative</td>
<td>*im</td>
<td>*īm (&lt; *iHm)</td>
</tr>
</tbody>
</table>

In all four we have a stem *i- which follows the typical nominal-adjectival inflection: masculine nominative *-g, accusative *-m; feminine nominative *-H, accusative *-Hm. (For the feminine, compare Section 3.1.2 (b)). Szemerényi reconstructs feminine accusative *

*iym (p. 191), which form reflects an association between the feminine anaphoric and the old *iH feminine nouns (see 3.1.2 (b) above and compare Szemerényi p. 176: "Es scheint ziemlich sicher, dass der Akk. [of the de

vi-type --AWJ] ursprünglich auf -iym auslautete . . . "). In Sanskrit, this association is no longer transparent, though it may explain why the de

vi class has the unexpected accusative de

viṃ beside genitive de

vyās. In pre-Germanic, the *iH stems probably showed the inflection

<table>
<thead>
<tr>
<th></th>
<th>short stem</th>
<th>long stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>CVCja</td>
<td>CVCī</td>
</tr>
<tr>
<td>accusative</td>
<td>CVCjam</td>
<td>CVCi jam</td>
</tr>
</tbody>
</table>

(see 3.1.2 (b)). The association of the anaphoric feminine nominative *i with the *iH long-stem nominative *i, may have led to a reformation of the anaphoric accusative to *i jam (that is, stem/*i plus ending /*-jam/, paralleling the allophonic ending [*-ijam]). Such
a reformation would yield the new anaphoric forms shown below:

<table>
<thead>
<tr>
<th></th>
<th>masculine</th>
<th>feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>is</td>
<td>Ⱡ</td>
</tr>
<tr>
<td>accusative</td>
<td>im</td>
<td>ijam</td>
</tr>
</tbody>
</table>

From these forms, we might postulate a spread of the *-am accusative from the feminine to the masculine, yielding masculine *imam, perhaps parallel to, though not necessarily cognate with, Sanskrit imam.

If this Germanic development occurred after the change of *o to *a, it could only have been furthered by the demonstrative and interrogative *ḥam, *hwam. On the other hand, the masculine may have been renewed first as *imom (after *ḥom, *hwom), which later, at the change of *o to *a, came to parallel the feminine *ijam. At any rate, the new anaphoric forms would be:

<table>
<thead>
<tr>
<th></th>
<th>masculine</th>
<th>feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>is</td>
<td>Ⱡ</td>
</tr>
<tr>
<td>accusative</td>
<td>imam</td>
<td>ijam</td>
</tr>
</tbody>
</table>

In Germanic, the old *jH stem forms in *-ja- were reformed to *-ja- on the model of the ā- and ja-stem nouns. Granting a continuing association between the nouns and the anaphoric feminine nominative and accusative, we derive a reformed anaphoric feminine accusative *ijam. Since, however, the masculine and feminine anaphoric forms were felt to share a common accusative ending (*imam, *ijam), a reformation of the feminine would likely carry over to the masculine as well. Thus:
masculine feminine
nominative is í
accusative imam ijam

It is from this starting point, in the anaphoric pronoun, that the
expanded ending spread to the demonstrative and interrogative masculine
accusative singular: *bam > *bamam, *hwam > *hwamam. As pointed out
by Hirt, the medial n attested in all Germanic dialects is perhaps
due to nasal dissimilation—Handbuch des Urgermanischen, Teil II,
Thus *banam, *hwanam, *inanam. From these derive regularly Gothic
bana, hswana, ina; Old English bone, hwone, hine (< h + *inanam). The
Old High German by-forms, anaphoric in, inan, interrogative hwēn,
hwēnan suggest a further reformation of the system shown above.
The short forms are probably from *inanam, *hwenan, these being 'cor­
corrections' of older *inanam, *hwenan according to the nominal pattern:
masculine *-am, feminine *-am. The long forms reflect original
inanam, hwenan (> *ina, *hwena, renewed with -n from the short forms).
As suggested in Section 3.2.1 (singular genitive), the short-ending
by-forms may have arisen in late Germanic.

If we turn to the neuter forms, we find a rather simple series
of developments in the Germanic dialects. The final -a of Gothic
bata and ita is found nowhere in North-West Germanic, and there
can be little doubt that Gothic has extended it from the masculine
forms bana and ina to produce an identity of masculine and neuter
accusative forms as in the noun. North-West Germanic, on the other
hand, has reformed an inherited interrogative *hwa (< *hwam) by
extending -t from the demonstrative and interrogative. That *hwam
was the original form has been argued above under the nominative.
Compare also Section 2.10. The feminine forms call for no additional
comment.

<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc.-neut.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tos(y)o</td>
<td>[pesa]</td>
<td>*bis</td>
</tr>
<tr>
<td>interrogative</td>
<td>k'es(y)o</td>
<td>hwesa</td>
<td>hwis</td>
</tr>
<tr>
<td>anaphoric</td>
<td>es(y)o</td>
<td>esa [isa]?</td>
<td>is</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>feminine</th>
<th>tos(y)ās</th>
<th>[bezāz], [bīzāz]</th>
<th>*bīzōs</th>
</tr>
</thead>
<tbody>
<tr>
<td>demonstrative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>interrogative</td>
<td></td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>anaphoric</td>
<td>es(y)ās</td>
<td>[izāz]</td>
<td>izōs</td>
</tr>
</tbody>
</table>

Table Three: genitive singular

Genitive singular.

The feminine interrogative is omitted since it is not reflected
in Gothic. Indo-European forms are, again, from Szemerényi, except
that I have enclosed the medial y in parentheses. For reasons
discussed in Section 3.1.1 (a), it is not likely that Germanic
inherited such forms. If Szemerényi is right about the *-o- in
*tos(y)o, then Germanic has remodeled the demonstrative masculine
and neuter genitive on the basis of the interrogative and anaphoric
forms.

From what was said in the introductory remarks to this subsection,
it follows that *-s- of the Germanic masculine and neuter pronominal
genitive is accentually irregular. This problem suggests that the
accentual influence of the anaphoric pronoun may have been limited to the feminine demonstrative-interrogative. That is, what we may have in the pre-Germanic pronouns is a compromise accentual pattern in which all masculines and neuters follow the original demonstrative pattern, all feminines the original anaphoric. This proposed compromise may seem less ad hoc when we consider the long standing association of the demonstrative with the masculine and neuter *-stems nouns (especially clear in the genitive in Germanic and Sanskrit) and of the anaphoric with the feminine *-*H stem nouns. These associations may have established the demonstrative as the model for all masculine pronouns, the anaphoric for all feminine pronouns.

In the feminine, if *es(y)as was indeed the Indo-European anaphoric genitive, then Germanic has replaced *e- by *i- from the nominative and accusative. It is difficult to believe that Old High German ıra, Old English hire could develop regularly from *(h)ezäaz.

As regards the feminine demonstrative, the *-ai- reflected in Old Icelandic heir(r)ar, Old English þære probably belongs originally in the plural. The Germanic form was perhaps either þezäaz (modeled on the inherited anaphoric) or *bizaz (modeled on the revised anaphoric as described above). From either can derive Gothic bizōs. The Gothic strong adjective ending -aizōs is a reformation based on the plural:

<table>
<thead>
<tr>
<th></th>
<th>plural</th>
<th>singular</th>
</tr>
</thead>
<tbody>
<tr>
<td>genitive</td>
<td>-aizō</td>
<td>-يزōs &gt; -aizōs</td>
</tr>
<tr>
<td>dative</td>
<td>-aim</td>
<td>-ai</td>
</tr>
</tbody>
</table>

A similar reformation in the Old-Icelandic - Old English adjective may
have spread to the pronouns.

In the anaphoric masculine genitive, I have postulated a by-form *isa beside *esa on the basis of Old High German is, ēs. Gothic can reflect either, while Old English his (< h + is, not es) argues for *isa as the Germanic form. From what will be said under the dative-locative singular, it may be that *isa was the only Germanic form. Old High German ēs can be modeled after the demonstrative. Germanic *isa would then be a reformation of older *es(y)o modeled after the nominative and accusative.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc.-neut.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dem. loc.</td>
<td>tosmi(n)</td>
<td>[pammain]</td>
</tr>
<tr>
<td></td>
<td>tosmei</td>
<td>[pammoi]</td>
</tr>
<tr>
<td></td>
<td>kwesmi</td>
<td>[hwammain]</td>
</tr>
<tr>
<td></td>
<td>kwesmei</td>
<td>[hwammoi]</td>
</tr>
<tr>
<td>int. loc.</td>
<td>esmi(n)</td>
<td>[immain]</td>
</tr>
<tr>
<td></td>
<td>esmei</td>
<td>[immoi]</td>
</tr>
</tbody>
</table>

| feminine       |          |        |
| dem.           | tos(y)ai | [pēzai], [pizai] | pizai |
| int.           | ?        | [hwezai], [hwizai] | hwizai |
| ana.           | es(y)ai  | [izai]    | izai  |

Table Four: dative-locative singular
Dative-locative singular.

The Indo-European forms are from Szemerényi with the modification (in the feminine) described above under the genitive. Germanic seems to have reformed the masculine-neuter endings according to the o-stems. The development of these endings in the several dialects, and particularly in Gothic, has been described above in Section 2.7. Since the anaphoric imma never occurs with an enclitic, we cannot tell whether it reflects *-ai or *-oi. The development of the feminine ending has been treated in Section 2.8.

As regards the masculine stem-forms, there can be no doubt that the double -mm- in Gothic is historically correct (< *zm < *sm). North-West Germanic forms with a single -m- are sometimes taken to be reductions of the cluster due to weak (sentence) stress. It seems more likely to me, however, that the single -m- is a North-West Germanic reformation (non-phonological) modeled on the plural:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>*pamōi</td>
<td>*pamōi</td>
<td>*pamiz</td>
</tr>
<tr>
<td>*pamiz</td>
<td>*pamiz</td>
<td></td>
</tr>
</tbody>
</table>

In the Germanic anaphoric form, *i- may be a regular development from *e, or it might be from the nominative and accusative. In the latter case, genitive *isa becomes more likely than *esa.

Reformations of the feminine stem-forms have been described above under the genitive. The Gothic contrast between the pronominal form -izai and the adjectival -ai probably reflects the Germanic situation. North-West Germanic seems to have renewed the adjective as *-aizai, which form probably spread back to the pronouns in Old Icelandic beire, Old English þære.
<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>masc. nom.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>toi</td>
<td>þai</td>
<td>þai</td>
</tr>
<tr>
<td>anaphoric</td>
<td>eyes</td>
<td>ejez</td>
<td>eis</td>
</tr>
<tr>
<td><strong>masc. acc.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>ton(s)</td>
<td>[þanz]</td>
<td>þans</td>
</tr>
<tr>
<td>anaphoric</td>
<td>ins</td>
<td>inz</td>
<td>ins</td>
</tr>
<tr>
<td><strong>neut. nom.-acc.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tā</td>
<td>þā</td>
<td>þō</td>
</tr>
<tr>
<td>anaphoric</td>
<td>ī</td>
<td>[ijā]</td>
<td>ija</td>
</tr>
<tr>
<td><strong>fem. nom.-acc.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>tās</td>
<td>þāz</td>
<td>þōs</td>
</tr>
<tr>
<td>anaphoric</td>
<td>iyās</td>
<td>ijāz</td>
<td>ijōs</td>
</tr>
</tbody>
</table>

Table Five: nominative-accusative plural

Nominative-accusative plural.

No plural forms of the interrogative pronoun are reflected in Germanic. Indo-European forms in the table are from Szemerényi. The demonstrative masculine nominative presents no difficulties, nor, really, does the anaphoric. Indo-Europeanists must contend with the stem e (or e-grade of a stem y = ey?); for Germanic, the form postulated by Szemerényi is perfectly regular. In West Germanic, Germanic *ejez should have developed to *ī, which may be reflected in Old English hi (< h + *ī). Old High German masculine anaphoric nominative-accusative plural sie is more difficult. It may be significant that Old High German shows g-initial forms for the nomi-
native-accusative plural of all genders in the anaphoric pronoun.
Most probably this innovation began with the reformation of the
inherited feminine plural *iţaz to *sijaz with *s- from the inherited
feminine nominative singular *si. It is perhaps not unlikely that
inherited neuter plural *i (or *iţā) was also reformed to *si (or
*sija) after the familiar pattern 'neuter nominative plural equals
feminine nominative singular'. From the feminine and neuter plural,
inherited masculine nominative plural *i was reformed to *si. This
created an immediate problem, however, in the homophony of masculine
nominative plural *si, feminine nominative singular *si. As a result,
both were renewed by affixing the endings of the demonstrative,
masculine nominative plural *be (< *bā), feminine nominative singular
*bō. Thus *sē (> sē) and *sō (> sō beside unrenewed sī). Later,
from *sō, inherited demonstrative *bō was renewed as *bō (> diu).

If Szemerényi is correct about the form of the Indo-European
demonstrative masculine accusative plural, then Germanic has renewed
the form according to the o-stem pattern. Developments from Germanic
to Gothic in both the demonstrative and the anaphoric masculine
accusative plural are completely regular.

Similarly the development of the nominative-accusative plural
neuter forms is quite straightforward. One need note only that
Germanic has reformed inherited anaphoric *i to *iţā by affixing the
neuter ending reflected in demonstrative *bā and in the o-stems.
Thus *i + ā → *iā → *iţā. Old High German neuter anaphoric
nominative-accusative plural sīu was discussed above. It was probably
influential in the development of demonstrative diu from older *bō.
Gothic developments in the feminine forms are uncontroversial. One may wonder, however, about Old High German dio (deo), sio. Regular development of the Germanic forms in Old High German would have yielded *dō (< *þōz < *þōz —stressed monosyllable!) and *iōa. The anaphoric was renewed to *sjā as described above. From the renewal of the masculine anaphoric to sie after the demonstrative de (see above), one might postulate a corresponding rapprochement of the feminine forms to yield the renewed anaphoric *sjō (> sio) like *dō. The renewal of the adjective probably dates from this same period (see Section 3.1.2 (a) nominative-accusative plural). Later, *dō was renewed as dio after sio. The by-form deo may owe its -e- to influence of the masculine plural de. Thus compare:

<table>
<thead>
<tr>
<th>masculine</th>
<th>feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
<td>siu</td>
</tr>
<tr>
<td>plural</td>
<td>sie</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>masculine</td>
<td>feminine</td>
</tr>
<tr>
<td>singular</td>
<td>diu</td>
</tr>
<tr>
<td>plural</td>
<td>de</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Indo-European  |  Germanic  |  Gothic
---|---|---
masc.-neut.
demonstrative  |  toisóm  |  hvaizóm  |  [þiza]
anaphoric  |  eisóm  |  [izóm]  |  izē

feminine
demonstrative  |  tasām?  |  hvaizóm  |  [þizo]
anaphoric  |  eisóm  |  [izóm]  |  [izo]

Table Six: genitive plural

Genitive plural.

Indo-European forms are from Szemerényi. The difference which he postulates between the masculine and feminine demonstrative forms is reflected in Sanskrit and Greek. But Balto-Slavic and Germanic show a lack of gender distinction in the demonstrative genitive plural. The Germanic form *þaizōm is reflected clearly in Old Icelandic beir(r)ā, Old English þērēa, and in the Gothic adjectival ending -aize/-aizo. The Gothic demonstrative has been renewed from the singular according to the model of the anaphoric pronoun:

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>anaphoric</td>
<td>is</td>
</tr>
<tr>
<td>demonstrative</td>
<td>þis</td>
</tr>
</tbody>
</table>

The renewal did not spread to the adjective in attested Gothic. The Gothic distinction in the genitive endings has been discussed in Section 2.3 (compare also section 3.1.5,(b)).

The short e which appears in Old High German dēro is something of a problem. It may have come originally from the masculine singular
by a similar analogy to that which operated in Gothic:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>anaphoric</td>
<td>is</td>
<td>iro</td>
</tr>
<tr>
<td>demonstrative</td>
<td>dēs</td>
<td>*dēro → dēro</td>
</tr>
</tbody>
</table>

From here, the short ə may have spread to the feminine genitive singular by way of the adjective (compare the Old Icelandic, Old English development postulated above under genitive singular), and from there to other parts of the system.

Double rr in Old Icelandic beirra does not affect the Germanic reconstruction. Single r is expected and attested, which suggests that double rr is an innovation. The Old Icelandic genitive plural had two associations: first with -ra of the strong adjective declension, secondly with the nominative plural masculine demonstrative beir. Double rr in beirra is a reflection of this dual association. It is beir as a stem, with the ending -ra. From the genitive plural, double rr spread to the feminine genitive singular, thence to the feminine dative singular.

If we turn now to the anaphoric forms, we find that Germanic reflects a common genitive plural *izom, cf. Gothic ize/izo, Old High German iro. For reasons which are not entirely clear, Germanic shows *e- in the anaphoric plural only in the nominative.
Indo-European stem-forms are from Szemerényi. They are shown in Table Seven with one form of the Indo-European instrumental plural. On this form and its development in Gothic, see Section 3.1.1 (a). Comments offered above on the Germanic stem-forms of the genitive plural apply to the dative plural as well. The vocalic distinction between demonstrative *baimiz and anaphoric *imiz appears quite clearly in the dialects: Gothic baim, im; Old High German dem, im; Old English bāem, him.

Table Seven: dative plural

<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>masc.-neut.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>toi-(mis)</td>
<td>baimiz</td>
<td>baim</td>
</tr>
<tr>
<td>anaphoric</td>
<td>ei-(mis)</td>
<td>[imiz]</td>
<td>im</td>
</tr>
<tr>
<td>feminin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrative</td>
<td>ta-(mis)??</td>
<td>baimiz</td>
<td>baim</td>
</tr>
<tr>
<td>anaphoric</td>
<td>ei-(mis)</td>
<td>[imiz]</td>
<td>im</td>
</tr>
</tbody>
</table>
SECTION 3.3
Directional adverbs

The Gothic directional adverbs form an interesting system, parts of which have often figured in discussions of the laws of final syllables. Semantically, the system is tripartite, involving the meanings locative (to be at or in a place), allative (to move towards a place), and ablative (to move from a place). Structurally, the system falls into two main classes: first, adverbs derived from pronominal stems, as hwar 'where?', hwadre 'towards what place?', hwabrō 'from what place?'. These represent the spatialization of a referential form: that one ----> that place. Secondly, adverbs derived by amplification of adverbial/prepositional stems, as inna 'within', inn 'into', innabrō or innana 'from within'.

Morphologically, the system is complex, so that it might be best to consider first the pronominal formations, next the prepositional. In the pronominal series, the locative marker is always and only -r. Conversely, -r never appears as the locative ending in prepositional formations. The determinant is discussed by R. Bethge, "Deklination des Urgermanischen," in Laut- und Formenlehre der altgermanischen Dialekte, ed. Ferdinand Dieter (Leipzig, 1900), p. 565; Friedrich Kluge, Urgermanisch, 3rd. ed. (Strassburg, 1913), p. 248; Ernst Kieckers, Handbuch der vergleichende gotischen Grammatik, 2nd. ed. (original 1927; Munich, 1960), p. 169; and Fritz Mezger,
"Some indo-european formatives," Word 2 (1946), p. 233. In the ablative slot, the pronominal forms show only the ending -brœ, which will be discussed in some detail below. The ending -ana, which occurs with prepositional stems, never occurs with pronominal stems in Gothic. In the allative slot, the pronominal stems take either the ending -b (/-ð/) or the ending -drœ. Neither of these appears with the prepositional stems. The -b ending is usually derived from Indo-European *-te; see Joseph Wright, Grammar of the Gothic language, 2nd. ed. (London, 1954), p. 167; Kluge, p. 248; Kieckers, p. 171; Mezger, pp. 229-231. Note that, according to the observations offered in Section 2.11, the dental must have been followed by a vowel in Germanic. The ending -drœ will be discussed below.

In the prepositional series, the locative marker is always and only -a. This ending, the a-stem locative (*-ai), has been discussed in Section 2.6. We will consider in a moment the oddity of finding a substantival case marker attached to a prepositional stem. In the ablative slot, the prepositional forms show either the ending -ana or the ending -brœ. The form -ana is the old genitive/ablative or 'prosecutive' marker which turns up as well in the personal pronouns (genitive singular) and the pronouns with gender. It has been mentioned in Section 2.10 and discussed more fully in Section 3.2.1 (genitive singular). The ending -brœ is identical to the form which appears in the directional adverbs from pronominal stems. That -ana and -brœ are mixed in the adverbs from prepositional stems but not in the adverbs from pronominal stems, suggests that -brœ is pronominal in origin.
In the allative slot, the prepositional stems are without ending, and it is this which enables us to explain the o-stem form which appears in the locative of directional adverbs from prepositions. Originally, the endingless prepositions which now function as allatives ('towards') were simple prepositions with locative value: in(side), out(side), etc. They shifted from locative to allative meaning by a well-known semantic change. Thus, in The inflectional categories of indo-european (Heidelberg, 196'), Jerzy Kurylowicz has written: "One may expect syncretism to take place between the acc. of goal [that is, allative --AWJ] and the loc. . . . Numerous instances verifying this assumption may be cited. E.g. French aller en Angleterre, à Paris, like vivre en Angleterre, à Paris, where English and German differentiate between to go to England, to Paris (nach E., nach P. gehen) and to live in England, in Paris (in E., in P. leben). But even in English we find where are you going (older: whither) like where are you staying." (pp. 189-190). Older examples from English are noted by A. Campbell, Old English Grammar (London, 1959), p. 280: "Generally the senses of rest and movement towards tend to be confused, and hēr is often used for hider, hāer for hider, etc.." It is significant that hider 'hither' is never used to mean hēr 'here', though hēr can be used to mean hider (e.g. 'Come here.'). Still older examples are noted by William Dwight Whitney, who writes, of Sanskrit: "The pregnant construction by which the locative comes to express the goal or object of motion or action or feeling exercised is not uncommon from the earliest time."--Sanskrit Grammar, 2nd. ed. (Cambridge, Mass.: Harvard University Press, 1889), pp. 102-103.
When the simple prepositions shifted to allative value ('towards'), this evoked a renewal of the locative form. Pre-Germanic effected this renewal by suffixing the o-stem locative *-oi. Thus inna < *innai = *inn + *oi, formed when simple *inn shifted in meaning from 'in' to 'into'.

At this point, it might be convenient to review the structure of the Gothic system in tabular form.

<table>
<thead>
<tr>
<th>'towards'</th>
<th>'at, in'</th>
<th>'from'</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronominal</td>
<td>hwap (hwad)</td>
<td>hwar</td>
</tr>
<tr>
<td></td>
<td>hwadrē</td>
<td>hwadrō</td>
</tr>
<tr>
<td>prepositional</td>
<td>inn</td>
<td>inna</td>
</tr>
<tr>
<td></td>
<td>innajtro</td>
<td>innana</td>
</tr>
</tbody>
</table>

The forms which will interest us from here on are the directional endings, -brō 'from', -dre 'towards'.

That -brō reflects an Indo-European ablative (*-od) has been suspected, at least, for some time—B. Delbrück, "Die Declination der Substantiva im Germanischen insonderheit im Gotischen," ZfdP 2 (1870), p. 385. The meaning of the morpheme fits exactly, and its probable origin in pronominal adverbs points toward the adverbial use of a case ending. However, in his article, "Etymologisches, lautliches und grammatisches, ZVS 23 (1877), pp. 84-94, H. Osthoff proposed that the ending was actually an accusative (< *-am) (p. 91). Osthoff was able to make this claim because he believed, with Hermann Paul, that both the accusative singular and
genitive plural of ἃ-stems derived from *-ām (p. 90). Thus the seeming ablative sense of ἀ-προ is actually genitive and the form of the ending agrees with the ἃ-stem accusative in Old English.

Osthoff was followed by Hermann Möller, "Zur Declination; germanisch AEO in den Endungen des Nomens und die Entstehung des o (a₂)," PBB 7 (1880), p. 487; and by Hermann Collitz, Die Behandlung des urspr. auslautenden ai im Gotischen, Althochdeutschen u. Altsächsischen, Besonderer abdruck aus dem XVII. bande der "Beiträge zur kunde der indogermanischen Sprachen" (Göttingen, 1890), p. 18, note 1.

The theory was convincingly discredited by G. H. Mahlow, Die langen Vocale AEO in den europäischen Sprachen (Berlin, 1879), pp. 57-60, who goes on to offer (p. 131) Lithuanian and Sanskrit comparisons justifying the position that adverbs in Gothic -₀, Old High German -o, Old Icelandic -a are historically ablatives.

In 1895 Wilhelm Streitberg—Urgermanische Grammatik, 4th. ed. (reprint, Heidelberg, 1974), p. 274—suggested that the non-directional adverbs in (Gothic) -₀ might reflect an Indo-European instrumental in *-ō or *-ōm (a derivation which can no longer be accepted if the arguments of 2.2 and 2.3 above are valid). On page 275, however, he writes, concerning the directional adverbs:

"Auf die Frage 'woher?': got. -prō aus idg. -trād (Abl.), vgl. lat. extrād; got. hwaprō 'woher?', hāprō 'dorther' usw.." The comparison with Latin extrād is perhaps unfortunate since Hans Krahe has concluded: "Man würde dann die germ.-lat. Gleichung künftig lediglich so zu formulieren haben, dass man sagt: Das Germ. (Got.) und das Lat. (samt dem Osk.-Umber.) besassen einst gemeinsam Adverbia auf -trōd (got. janbrō; lat. ultrō, contrō(-versus, osk. contrud),
für die in Italien sekundar eine Neubildung auf -trād eintrat."
--"Zu den Adverbia vom Typus got. Jainbro und lat. extra," IF 64 (1958/1959), p. 68. But the ablative origin of Gothic -bro seems clear. (See further, on the possibility of Germanic *-ād, the appendix to the present study.)

In "Zu den germanischen Auslautgesetzen," (IF 6 [1896], pp. 47-79), Hermann Hirt observed that: ".. das Suffix -tr gar nichts mit der Ortsbezeichnung zu thun hat, sondern mit dem Komparativ-suffix -tero identisch ist. hwabro heisst: 'von welcher von beiden Seiten her', und ist der Ablativ von got. hwabar. Thatsächlich gibt es auch Gleichungen, die das Suffix tr gar nicht kennen. Got. undaro 'unten', ist Laut für Laut identisch mit ai. adharhā zu adharas mit der Bedeutung 'von unten her, unten', .. ." (p. 68). Hirt's connection of the -tr- adverbial element and the -tero comparative, while perhaps ultimately correct, must be tempered by the findings of Fritz Mezger (cited above), p. 233; but the Sanskrit comparison is compelling. Hirt builds the case in greater detail on pp. 70-71. That the final -ō of Gothic -bro reflects an Indo-European ablative in *-ōd (or possibly *-ād) can hardly be doubted.

In Subsection 2.2.3 of the present study, it was suggested that -ō in -bro probably owes its preservation to the presence of Germanic *-t (< *-d). That is, the protectiveness of the Germanic stop *-t accounts for the fact that -bro contains non-alternating ō (see Section 2.4). Non-alternating ō came to be in final position more recently than the alternating ō which appears in hwanōh - hwana.

The other directional ending, -dre 'towards', has long been a
problem. From the phonological developments postulated in Section 2.3, one might derive -dre from *-drom, paralleling the genitive plural in -e < *-om. However, Thomas L. Markey has called attention to the Runic forms hederA (Stentoften) and hAiderA (Björketorp) which seem to show clearly that the Germanic form cannot have contained *-o- ("A note on Germanic directional and place adverbs," Studia Linguistica 24 [1970], p. 75). Apparently, Gothic -ē in -dre is from Germanic *-ē(-).

In "Vom schleifenden und gestossenen Ton in den indogermanischen Sprachen; zweiter Teil, die schleifende Betonung im Germanischen und die Auslautgesetze," (IF 1 [1892], pp. 195-219), Hermann Hirt derived -dre from an ablative-instrumental in *-ōre(d) which was nothing more than an ablaut variant of the ablative *-pro(d) reflected in -bro (pp. 209-210). Hirt’s suggestion has been repeated ever since, and one finds it even in Wolfgang Krause’s Handbuch des Gotischen, 3rd ed. (Munich, 1968), p. 206. Unfortunately, an Indo-European *-ēd ablative may be unsupportable—see H. Craig Melchert, Ablative and instrumental in Hittite, Harvard Ph. D. dissertation, 1977, pp. 468-469. Indeed, Hirt himself withdrew the proposal in 1896 ("Zu den germanischen Auslautgesetzen"): "Im Indischen tritt neben -tra in tatra auch -tɾa in lokativischen Bedeutung auf. . . . Zu diesem -tɾa stimmt in Ton und Bedeutung got. -dre in hwadre ‘wohin’, jaindre ‘dorthin’, hidre ‘hierher’. Welcher Kasus darin steckt, lässt sich nicht sicher sagen, jedenfalls kein Ablativ, wie ich IF. I 209 vermutete. Streitberg hält diese Adverbien für Instrumentale und verweist zur Begründung ansprechend

The comparison with Sanskrit -tra is well chosen. Of this form, Whitney has written: "With the suffix tra (in the older language often tra) are made adverbs having a locative sense... And, as the locative case is used also to express the goal of motion... so the adverbs in tra have sometimes an accusative [= allative — AWJ] as well as a locative value: thus, tatra gaccha go there or thither; patho devatra yanan (R.V.) roads that go to the gods." (p. 404). Compare also the remarks of T. Burrow, The Sanskrit Language, 2nd. ed. (London, 1973), p. 280: "With this suffix [-tra — AWJ] are formed adverbs with a locatival sense from noun stems (in the Veda only) and from pronominal stems... As already indicated these adverbs are based on the extinct class of neuters in -tar... of which they are instrumentals, with the locatival sense which instrumental forms always have when used adverbially."

In The inflectional categories of Indo-European (p. 203), Kurylowicz has pointed out that the Vedic nominal forms in -trā are secondary and modeled on the pronominal adverbs. The connection between locative and allative is noted by Whitney in the quote immediately above and was described near the beginning of this section.

Burrow claims (and Hirt would perhaps agree) that the Vedic -trā element is morphologically an instrumental. Certainly it is not a locative. We must ask, however, what semantic connection there might be between the instrumental and the locative. If we can establish such a connection, then the way is clear to link the -e of Gothic -dre to the pronominal instrumental reflected in pe. The
semantic steps would be: instrumental → locative → allative.

In his discussion of the Indo-European case system, Kurylowicz (Inflectional categories, p. 189) has noted: "The skeleton of the system of the so-called concrete cases is the spatial opposition where : whence : whither : which way . . .". He illustrates the system with the Sanskrit forms: grame 'in the village' (locative, 'where'), gramat 'from the village' (ablative, 'whence'), gramam (accusative [= allative], 'whither'), and gramena 'through (across) the village' (instrumental of traversed space, 'which way'). A little further on, he writes: "In I.E. the case-forms corresponding to the slot $B$ (acc.) and maybe $\gamma$ (instr.) function at the same time as grammatical cases. But the concrete or spatial functions are easily shown to be context-conditioned. Both the acc. of goal and the instr. of traversed space determine verbs of movement, whereas the acc. of the direct object or the instr. of the 'agent' are independent of the semantic content of the transitive verb."

Kurylowicz diagrams his four-part system as shown below:

```
\[ \Gamma = \text{loc.} \]
\[ B = \text{acc. of goal} \quad \beta = \text{abl.} \]
\[ \gamma = \text{instr. of traversed space} \]
```
In the Gothic directional adverbs we have, however, not a four-part but a three part system, which might be derived by a flattening of Kurylowicz's diagram:

\[ \Gamma \text{ loc. (in)} \]

\[ \beta \text{ ablative (from)} \]

\[ \alpha \text{ instr. (through)} \]

\[ \alpha \text{ allative (towards)} \]

The central member, locative/instrumental of traversed space, could easily be context-conditioned: 'in' (locative) with stative verbs, 'through' (instrumental of traversed space) with motion verbs. Compare English 'There are badgers through (out) these woods.' in which through(out) is locative ('(everywhere) in') in a stative construction. This overlap between locative and instrumental of traversed space would enable us to explain why Sanskrit -tra is morphologically an instrumental, but functionally a locative.

References to the functional overlap of instrumental and locative in Germanic dialects (with the morpheme being an instrumental) are given in the coda to Section 2.8. There is some reason, then, to see in both Sanskrit -tra and Gothic -dre the progression:

instrumental $\rightarrow$ locative $\rightarrow$ allative.

That a historic connection between instrumental and allative is not at all unusual may be seen in Hidatsa, a Siouan language spoken in North Dakota. The Hidatsa nominal suffix corresponding to the Indo-European instrumental is -htaa, as in miŋhtaa awārikic 'I hit it (throwing) with a rock.' But when -htaa is suffixed to stems of spatial reference, and the resulting forms are used with verbs of motion, the suffix indicates not 'through' or 'in' but
'towards'. The dualistic nature of Hidatsa -hta appears in the following sets:

iŋpu 'tip'    ūpuahtaa (a) 'with the tip (of an instrument)'  
                (b) 'towards the top of a hill'

nēeta 'edge'    nēetahtaa (a) 'with the edge (of an instrument)'  
                        (b) 'towards the edge'

irāpa 'right'   irāpahtaa (a) 'with the right hand'  
                        (b) 'towards the right'

In each set, the (b) form is context-conditioned and occurs only with verbs of movement.

From the above, it appears that we may indeed be justified in deriving the -e of Gothic -dre from an Indo-European (pronominal) instrumental in *-e. (Recall that the -dre allative occurs only in Gothic directional adverbs from pronominal stems.) There is a seeming problem, however, in the preservation of -e in -dre when compared with the alternation of e (< *-ai) in hwammeh - hwamma.

A similar problem appears in Old Icelandic. In several sections of the present study, it has been claimed that Germanic *-e in absolute finality became -i in North-West Germanic. But the Icelandic forms heðra etc. (< Runic heder < Germanic *heðre) suggest either that the rule is wrong or that *-e was not final in *heðre. The correctness of a comparable rule is clearly shown in Gothic hwammeh - hwamma, and it would therefore seem to follow that *-e in Germanic *-dre probably did not stand in absolute finality. We can explain this probable state of affairs rather simply. Though it was derived from an instrumental, the morpheme *-tre was fundamentally a locative.
in pre-Germanic, as in Vedic-Sanskrit. In both branches, *-tre had a secondary allative meaning which was context-conditioned by construction with a motion verb. In pre-Germanic, *-tre in its allative use was directly opposed to *-trod (ablative) in the nascent directional adverb system. Due to this systematic opposition, *-tre was renewed as *-tred, and the meaningful contrast allative-ablative was concentrated in the vocalic contrast e-o, as Hirt once suspected. That is, non-alternating e in Gothic -drē is directly comparable with non-alternating o in Gothic -prō. Both have come into absolute finality relatively recently. (see, again, Section 2.4).
SECTION 3.4
The strong verb

With its thematic present and athematic preterit (perfect), the strong verb is, for historical purposes, the heart of the Germanic verbal system. Most of the endings are familiar from other Indo-European languages and yield, therefore, some of our surest comparisons. The uncontroversial forms I will treat somewhat briefly here, mentioning them only to extract what information they might reveal as to diachronic rules and their order. Certain optative, imperative, and passive forms have not, however, always been clearly understood in the past, and these I will discuss in more detail. For convenience of reference, I have divided this section into six subsections, taking up first the present system—active indicative (3.4.1) and optative (3.4.2), imperative (3.4.3), passive indicative and optative (3.4.4)—then the preterit system—indicative (3.4.5) and optative (3.4.6). Each subsection opens with a comparative table which is followed by a discussion of significant individual forms. As before, renewals or replacements are enclosed in square brackets, and Gothic entries appear in Gothic orthography.
SUBSECTION 3.4.1

Present active indicative

The table below gives Indo-European, Germanic, and Gothic forms for the endings of the (thematic) present active indicative.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing. 1</td>
<td>-ō</td>
<td>-ō</td>
<td>-a</td>
</tr>
<tr>
<td></td>
<td>2 -esi</td>
<td>-esi, -esi</td>
<td>-is</td>
</tr>
<tr>
<td></td>
<td>3 -eti</td>
<td>-ehti, -ehti</td>
<td>-ehti</td>
</tr>
<tr>
<td>dual 1</td>
<td>-ōwes</td>
<td>-ōwes</td>
<td>-ōs</td>
</tr>
<tr>
<td></td>
<td>2 -etes, -etos</td>
<td>-ebez, -ebez</td>
<td>[-ats]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plural 1</td>
<td>-omes</td>
<td>-omes</td>
<td>-am</td>
</tr>
<tr>
<td></td>
<td>2 -ete</td>
<td>-ete, -ete</td>
<td>-ehti</td>
</tr>
<tr>
<td></td>
<td>3 -onti</td>
<td>(-anbi), -anbi</td>
<td>-and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The forms are, for the greater part, uncontroversial. Doublets in the Germanic second and third persons are reconstructed by all the standard handbooks on such evidence as second singular Old Icelandic -r (< *-ezi), West Germanic -s (< *-esi), third plural Old English -ap (< -anbi), Old High German -ant (< *-anbi). Since Gothic de-voices final spirants, Gothic forms can reflect either member of a doublet except in the third plural where Gothic -and can come only
from Germanic *-anāi. In a recent article, G. Lee Fullerton has argued that the Old Frisian, Old English, and Old Saxon third plural forms—that is, the forms which seem to reflect Germanic *-anbī—might actually be derivable from *-anāi by an Ingvaeonic devoicing of final spirants following n—"The development of obstruents in four Germanic endings," *Linguistics* 130 (1974), pp. 71-82, espec. p. 76. The proposal merits further study, for if it could be maintained, it might enable us to eliminate all doublets but the second singular.

In a second article—"Grimm's Law and the W. Gmc. 2 sg. verb ending -s," *Linguistics* 145 (1975), pp. 87-102—Fullerton suggests that one might be able to accept the traditional explanation of devoicing in the second singular from influence of the second singular pronoun hū in enclitic position. Fulle.on seems to have handled the objections raised by Francis A. Wood, "Final -s in Germanic," (MLN 2 [1896], p. 370), but his explanation requires us to believe that the West Germanic loss of final *-z followed the loss of final *-i (e.g. *-izi > *-iz > *-i), and that rhotacism was later still. While this ordering may be possible, one would like to be assured that it is not contradicted by developments outside the verbal system. Furthermore, the best evidence for encliticization of the pronoun are the -st endings in Old English and Old High German; yet, in both dialects, endings with simple -s are older than endings in -st. On the other hand, Fullerton's proposal might enable us to explain the difference between Old High German pronominal er (< *ez) and verbal -is (< *-ez) without setting up a doublet in the verbal form. Unfortunately, answers to these questions must come from a
full-scale re-investigation of West Germanic, and cannot occupy us further in a study of Gothic.


The Gothic second person dual in -ts is an old problem, since Indo-European *-tes/*-tos ought to yield Germanic *-bez/*-baz/*-ōez/*-ōaz in thematic forms, and since these endings ought to appear as Gothic *-ōs. A good review of the older literature is provided by Klaus M. Schmidt, "The Gothic dual second person -ts," Linguistics 130 (1974), pp. 83-86. Schmidt himself connects the -t- of the verbal form with the pronominal nominative dual wit and *jut (or *jit). This cannot be a complete explanation, however, since -t is not limited to the second person in the pronouns as it is in the verb. Probably one must still begin with the traditional observation that *-tez is regular in athematic forms from stems ending in a labial, velar, or *-s-. Compare R. Bethge, "Konjugation des Urgermanischen,"
in Laut- und Formenlehre der altgermanischen Dialekte, ed. by Ferdinand Dieter (Leipzig, 1900), p. 381; Trautmann, pp. 49-50; Joseph Wright, Grammar of the Gothic Language, 2nd ed. (London, 1954), p. 137. In the preterit indicative (athematic), *-tez would have been the most common ending, *-bez appearing only after stems in resonants (e.g. *berbez). In the present indicative (thematic), *-bez would be more common, though *-tez might be found in the handful of athematic presents. The existence of both *-bez and *-tez in both present and preterit linked the two tenses in the second dual. What we have, therefore, is a single extension of *-tez at the expense of *-pez. As to the reason for this extension (rather than, e.g. a division of the endings between the tenses), we may return to Schmidt's hypothesis in modified form: *-t- of the verbal ending was associated with -t of the pronoun. No doublet existed in the pronoun; thus the doublet in the verb was reduced. The first person pronoun did not affect the first dual verbal ending since *-t- never arose in that verbal form. That is, the dual pronoun did not supply the verbal *-t-, it merely influenced the extension of *-tez.

The thematic vowel -a- of Gothic -ats is irregular from the Indo-European point of view. Some difficulties in its explanation have been discussed by Gerd Höst, "An archaic feature of the Germanic verb," NTS 17 (1954), pp. 441-453. So far as I am aware, no solution is at hand.
In the table below appear the corresponding Indo-European, Germanic, and Gothic forms of the (thematic) present active optative.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
<th>see</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing. 1</td>
<td>-oim</td>
<td>-aim</td>
<td>[-au]</td>
</tr>
<tr>
<td>2</td>
<td>-ois</td>
<td>-aiz</td>
<td>-ais</td>
</tr>
<tr>
<td>3</td>
<td>-oit</td>
<td>-ait</td>
<td>-ai</td>
</tr>
<tr>
<td>dual 1</td>
<td>-oiwe</td>
<td>-aiwe</td>
<td>-aiwa</td>
</tr>
<tr>
<td>2</td>
<td>?</td>
<td>[-aits]</td>
<td>3.4.1</td>
</tr>
<tr>
<td>plural 1</td>
<td>-oime</td>
<td>-aime</td>
<td>-aima</td>
</tr>
<tr>
<td>2</td>
<td>-oite</td>
<td>-aipe, -aiße</td>
<td>-aiþ</td>
</tr>
<tr>
<td>3</td>
<td>-oint</td>
<td>-aint</td>
<td>[-aina]</td>
</tr>
</tbody>
</table>

First singular.

The Gothic ending -au of the first singular present active optative has been a mystery for some time. In 1853, R. Westphal compared it with the other au verbal endings in Gothic, but found them all inexplicable—"Das auslautgesetz des Gotischen," ZVS 2, p. 183. In 1877, Hermann Paul discussed several earlier explanations (pp. 376-378) and concluded (p. 378) that the Germanic form was probably *-au, developed from *-ajm > *-ajum > *-au —"Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten," PBB 4, pp. 315-475. West Germanic first singular forms reflecting earlier *-ai are, according to Paul, analogical extensions from the third singular, while the original inflection appears in Old High German willeo (present indicative, but formerly optative)—compare Georg Heinrich Mahlow, Die langen Vocale AEO in den europaeischen Sprachen (Berlin, 1879), pp. 106-107. The last point is probably incorrect, since willeo is a rather clear conflation of optative and indicative endings (*-e + *-ô) which reflects the transfer of this verb from one mood to the other. One might also ask why West Germanic should wish to efface an inherited distinction between the first and third persons singular in the present optative.

A larger review of earlier theories was provided by Max Hermann Jellinek—Beiträge zur Erklärung der germanische Flexion (Berlin, 1891), pp. 94-96 --who attributed the *-ojm hypothesis to Osthoff. Jellinek rejects *-ojm (p. 95), as does Hermann Hirt—"Vom
schleifenden und gestossenen Ton in den indogermanischen Sprachen; zweiter Teil, die schleifende Betonung um Germanischen und die Auslautgesetze," IF 1 (1892), p. 206. Hirt proposes instead that Germanic *-on has become Gothic -au. This theory is tied in with Hirt's explanation of the imperative in -au (see below) and has little to recommend it. Germanic *-am (Hirt's *-on) is proper to the ā-stem accusative singular, which develops to Gothic -a (see 3.1.2 above). We have no reason to suspect that this development is irregular. Germanic *-am is not proper to the present active optative (see West Germanic first singular forms from *-ai, Gothic and West Germanic second and third singular forms from *-ai-), but even if it had existed there, we should still expect Gothic -a, not -au.

In 1903, W. van Helten reviewed all theories available at the turn of the century and rejected (properly, in my opinion) every one of them—"Grammatisches [LX]," PBB 28, pp. 546-548. Unfortunately, Helten's own accout, which involves a complex reformation arising in the first weak verb, is not convincing. Following earlier studies by Bezzenberger and Janko, Reinhold Trautmann suggested derivation of Gothic -au from an Indo-European conjunctive in *-ou --Germanische Lautgesetze in ihrem sprachgeschichtlichen Verhältnis, Inaugural Dissertation, Albertus-Universität zu Königsberg i. Pr. (Kirchhain N.-L., 1906), p. 29. Karl Brugmann—"Das gotische -ada-Passivum," IF 39 (1921), pp. 51-52—suggested a conjunctive in *-ō which developed to -a and was renewed with the ubiquitous particle -u. This particle has long been a Deus ex Machina in Gothic studies, and ought to be abandoned. One should perhaps abandon the conjunctive
hypothesis as well since there appears to be no other evidence for the preservation of conjunctive forms in Germanic.


oiyi commun est secondaire). — Mais le goto-nordique a une autre désinence de la 1. sg.; le gotique a -au (bindau), et le vieux-norrois -a (blinda), qui peut remonter à -au. Il n'est peut-être pas impossible que cette forme dérive à son tour de -oim (avec m vocalique) comme en grec archaïque εξελαθνοια skr. bhareyam (-am < m devant voyelle): -oim > germ. -ajun > -aju et, avec samprasārana, > -au.

Old Icelandic notwithstanding, one must certainly hesitate to propose two different inherited vocalizations (*-oim, *-oim) of a single ending in a single language (Germanic). I would note as well that none of the Germanic languages reflects *-ojnt (parallel to *-ojm) in the third plural present active optative. Oswald Szemerényi attributes this to analogy after the other persons of the plural (Einführung, p. 241), but his explanation of *-ojnt does not lessen the problem posed by *-ojm since Indo-European final *-m has not survived in syllabic form in such endings as the ā-stem accusative singular (< *-eI₂m, compare Cowgill's proposed optative form *-oiH₄m). And one must ask yet again why Germanic *-au is not reflected in West Germanic. Analogical reformation after the third singular (which Cowgill assumes—p. 7) is possible but seemingly unmotivated. Accordingly, both *-ojm and *-ojnt seem open to doubt.

Looking toward Germanic from Indo-European, we should expect the present active optative singular to have been *-aim, *-aiz, *-aið, a series which we find reflected almost perfectly in West Germanic (on the second person, see Section 2.12). Let us here
postulate the same series for pre-Gothic and see what would happen to the first person. Unless nasalization proved decisive, one would expect pre-Gothic *-aim (> *-ai) to be treated exactly like *-ai in the o-stem locative or the passive singular (see Section 2.6). That is, the first person present active optative singular ending ought to have become Gothic *-a. Here we must note that the first person present active indicative singular ending (Germanic *-ō) also developed regularly to Gothic -a (see Section 2.4). That is, regular phonological development of the present active indicative and optative singular endings would apparently have led to homophony in the first person (of Gothic, but not of North-West Germanic).

The indicative-optative distinction was an important one in Germanic. It appears in full strength in all the older dialects and survives even today. Thus, given the importance of the semantic contrast, homophony of endings must have been a serious problem in pre-Gothic and may well have evoked a renewal of the morphological distinction. A possible source for the renewal of the Gothic active optative was ready to hand in the passive (see 3.4.4). Thus compare:

<table>
<thead>
<tr>
<th></th>
<th>active</th>
<th>passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>indicative</td>
<td>*-a</td>
<td>*-ada</td>
</tr>
<tr>
<td>optative</td>
<td>*-a</td>
<td>*-aidau</td>
</tr>
</tbody>
</table>

On the basis of this model, the active optative first person singular could have been renewed to -au, thus restoring the indicative-optative contrast. No renewal would occur in the second and third person forms of Gothic because no homophony existed there. No
renewal would occur in North-West Germanic because no indicative-optative homophony existed there. It appears, therefore, that the Old Icelandic forms may be isolated; Gothic -au can derive from the same proto-forms reflected in West Germanic. Furthermore, the derivation just outlined avoids the questionable form *-ojm and calls for no analogy in the third plural. It does require, however, that -au in the passive be independently motivated. On this point see 3.4.3.

Second and third singular.

The development of the second singular in Gothic is perfectly regular: Germanic *-ai- is protected by the final consonant so that it does not become *e (> -a) as in the o-stem locative. This is not to say that orthographic ai cannot represent a monophthong in synchronic Gothic; merely that the monophthong spelled ai in the optative is a later monophthongization of Germanic *ai than the monophthong spelled e in, e.g. hwammeh (beside hwamma—both locatives from *-ai in Germanic absolute finality). That is, Germanic *ai was twice monophthongized in pre-Gothic: first in Germanic absolute finality (> e), then in other positions (spelled ai).

The third singular form has caused confusion for some time. In 1897 G. H. Mahlow made the correct comparative contrast:

"3. Sg. Opt. nimai aus *nimaið, aber 3. Sg. Med. nimada aus *nimaðai."—Die langen Vocale AEO in den europaeischen Sprachen, p. 55. But in 1890 Hermann Collitz disagreed with Mahlow and concluded that -ai could not be preserved by the final Germanic *-ð (better, *-t) --Die Behandlung des urspr. auslautenden ai im Gotischen,
Althochdeutschen u. Altsächsischen, Besonderer abdruck aus dem XVII bande der "Beiträge zur kunde der indogermanischen Sprachen" (Göttingen, 1890). Collitz wrote (pp. 5-6):

In der 3. sg. opt. aber blieb nach dem verluste des t kein schützendes element hinter dem nunmehr auslautenden diphthong übrig; das vocalische auslautgesetz fand in *nemai nicht mehr gedeckten, sondern schon offenen auslaut vor. Es lässt sich umgekehrt eine parallele dafür beibringen, dass ein ursprünglich auslautendes t für die wirkung des vocalischen auslautgesetzes auf den vorhergehenden vocal gleichgültig ist, nämlich die 3. sing. opt. des präteritums, z.b. got. nem-i und nasi-ded-i. Der auslautende vocal ist in diesen formen genau so behandelt, wie im nom. sing. der sogen. contrahierten ja-stämme, z.b. maw-i, band-i, obwohl im ersten falle urspr. -i, im letzteren falle urspr. -I zu grunde liegt. Somit werden wir darauf verzichten müssen, das -ai in nimai durch den urspr. auslautenden dental zu rechtfertigen, und es bleibt, so viel ich sehe, nur übrig, auch hier, wie in blindai, eine störung des regelrechten lautwandels durch formübertragung anzuerkennen.

Some of the difficulties in the Collitz account were pointed out by M. H. Jellinek in Beiträge zur Erklärung der germanischen Flexion (Berlin, 1891), p. 65:

Betrachten wir nun den process, durch den *baira aus *bheroit sein -ai bekommen hat. Wir müssen für die einwirkung der

In short, the analogical restoration of *baira to bairai is open to serious doubt.

On page 66, Jellinek clarifies the point which Collitz missed: "Als im got. auslautender dental abfiel, stand *haitade on einer stufe mit formen wie *meno, *wili. Hier trat verkürzung der langen vocale ein; die auslautenden diphthonge in blindai und bairai aber bleiben erhalten." That is, long monophthongs shorten while diphthongs remain. I have noted above that *ai first monophthongized in absolute finality and only later in (Gothic) protected position. The Gothic third singular present optative indicates only that the monophthongization of *ai in absolute finality preceded the loss of Germanic final *-t. These two events could well have occurred in Germanic times—see Alois Walde, Die germanischen Auslautgesteze (Halle, 1900), pp. 14-15.

Remaining forms.

The first persons dual and plural in *-e are commonly assumed though it is difficult to be certain about them. One may accept the
forms without wishing to derive from them far reaching theories about
other Germanic developments. The second plural is reasonably well
supported (see the standard handbooks), while the dual is so likely
to have been influenced by the indicative that one hesitates to
reconstruct a Germanic form. The third plural is perhaps universally
viewed as a renewal: *-aïnt > *-ain > -aina after first plural
-aïma. One might speculate that this renewal served to heighten the
contrast between m and n (first versus third optative) and between
third optative and third indicative.
SUBSECTION 3.4.3

Present active imperative
(and third singular present passive optative)

Table One lists Indo-European, Germanic, and Gothic forms of the present active imperative in so far as these can be determined.

<table>
<thead>
<tr>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing. 2</td>
<td>-e</td>
<td>-e</td>
</tr>
<tr>
<td>3 -etu</td>
<td>[-aðau]</td>
<td>-adau</td>
</tr>
<tr>
<td>dual 2</td>
<td>?</td>
<td>[-ats]</td>
</tr>
<tr>
<td>plural 1</td>
<td>?</td>
<td>[-am]</td>
</tr>
<tr>
<td>2 -ete</td>
<td>-eðe</td>
<td>-ip</td>
</tr>
<tr>
<td>3 -ontu</td>
<td>[-anðau]</td>
<td>*-andau</td>
</tr>
</tbody>
</table>

Table One

Second singular.

Third singular imperative (and present passive optative).


A second theory, held, for example, by Hans Krahe, *Indogermanische Sprachwissenschaft*, II, *Formenlehre*, 5th ed., Sammlung Göschen Band 64 (Berlin, 1969), p. 75, derives the Gothic ending from Indo-European *-tōd*. This proposal, however, is at odds with the Gothic directional adverbs in -drō, which seem to reflect Indo-European *-trōd* (see Section 3.3).

A good modern review of proposals to date is presented by
T. L. Markey in "Gothic imperatives in -au," Studia Linguistica 26 (1972), pp. 42-43. On page 45 Markey explains his own view that *-a in the third singular optative passive has been renewed to -au on the model of the first person, which in turn was modeled on the optative active (< *-ojm). From the optative third singular, -au spread to the imperative. I find it just as plausible, however, that the optative active has been remodeled on the passive (rather than the other way around) as described above in Subsection 3.4.2. Accordingly I will temporarily set aside the particulars of Markey’s explanation while retaining its general premise that the optative has played a role in reshaping the imperative.

I believe that the Gothic third person imperative forms, singular -adau, plural -andau, might be derived, ultimately, from the Indo-European imperative endings *-e-tu and *-o-ntu respectively. Concerning the Indo-European morphemes, Calvert Watkins has written: "Wie Thurneysen ... gezeigt hat, sind die 3. Personen des Impv. -tu, -ntu die ältesten und einfachsten Indikativformen, wie sie im Injunktiv erhalten sind, mit einem suffixartig angefügten u-Element. Der Vorgang in der 3. PI. war daher (in ved. Form) -ant + u. Diese Imperativendung ist idg. und zweifellos archaisch, eine bedeutsame Form, die nur im Indo-Iranischen, Phrygischen ... und Anatolischen ... gemeinsam erhalten ist." --Geschichte der indogermanischen Verbalflexion, Indogermanische Grammatik ed. by Jerzy Kurylowicz, Band III, Formelehre, Erster Teil (Heidelberg, 1969), p. 38. (Compare Szemerényi, Einführung (1970), pp. 228-230.) Indo-European third singular forms of the thematic present indicative, imperative, and optative—both active and passive—are shown in Table Two. It is Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
from this system that the Gothic third singular forms are to be
derived in what follows.

<table>
<thead>
<tr>
<th></th>
<th>indicative</th>
<th>imperative</th>
<th>optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>active</td>
<td>-eti</td>
<td>-etu</td>
<td>-oit</td>
</tr>
<tr>
<td>passive</td>
<td>-otoi</td>
<td></td>
<td>-oito</td>
</tr>
</tbody>
</table>

Table Two: Indo-European third singular forms

Significant in Table Two is the absence of an original third
singular passive imperative. As noted by Jerzy Kurylowicz---The
137: "Genetically, as far as etymological evidence is available,
at least the accessory personal forms of the imperat. (3rd p. sing.
dual plur.; 2nd p. dual plur.; 1st p. sing. dual plur.) continue a
'delocutory' mood: opt., 'injunctive' or subj." The list of other
moods available for use as imperative forms is instructive, and
particularly so in view of the formal similarity of the Gothic
(active) imperative and passive optative in third person forms.

Kurylowicz states the essence of the Gothic developments in "Notes
de conjugaison I; 4. La voyelle thématicque a de got. nimada(u) etc."
BPTJ 28 (1971), p. 24: "A l'optatif médiopassif nimaiza(u, nimai dau,
nimaindau le got. s'est servi de l'élément final -u, le même qui en
indo-iranien (et en hittite) différencie la 3e p. de l'imperatif des
formes correspondantes de l'injonctif, p. ex. v. ind. bhávan:
bhávantu, hitt. appanzi : appendu. C'est que l'ancien optatif
médiopassif fait en got. office de l'imperatif, que ne connaît pas
de formes médiopassives spéciales." I would amend this description
in only one particular: it was perhaps not Gothic, but pre-Germanic
which lacked a special form for the passive imperative and which used for this the passive optative. That is, the Gothic use of the optative where imperative forms are lacking—a suppletion well supported for synchronic Gothic by Markey ("Gothic imperatives," p. 44)—may reflect an ancient practice. The suppletion which filled the gap in Table Two is shown in Table Three.

<table>
<thead>
<tr>
<th></th>
<th>indicative</th>
<th>imperative</th>
<th>optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>active</td>
<td>-eti</td>
<td>-etu</td>
<td>-oit</td>
</tr>
<tr>
<td>passive</td>
<td>-otoi</td>
<td>-oito =</td>
<td>-oito</td>
</tr>
</tbody>
</table>

Table Three: suppletive passive imperative

From a comparison of indicative and imperative endings in Table Three, we might postulate a renewal of the passive imperative (= passive optative) according to the model shown in Table Four.

<table>
<thead>
<tr>
<th></th>
<th>indicative</th>
<th>imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>active</td>
<td>-ti</td>
<td>-tu</td>
</tr>
<tr>
<td>passive</td>
<td>-toi</td>
<td>-to → -tou</td>
</tr>
</tbody>
</table>

Table Four: renewal of the passive imperative

Though this renewal began in the passive imperative, we need not be surprised at its spread to the passive optative, since the unrenewed endings were identical. Table Five shows the renewal in progress, Table Six shows it completed.

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<table>
<thead>
<tr>
<th>Mood</th>
<th>Indicative</th>
<th>Imperative</th>
<th>Optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>-eti</td>
<td>-etu</td>
<td>-oit</td>
</tr>
<tr>
<td>Passive</td>
<td>-otoi</td>
<td>oitou</td>
<td>-oitou</td>
</tr>
</tbody>
</table>

Table Five: renewal in progress

<table>
<thead>
<tr>
<th>Mood</th>
<th>Indicative</th>
<th>Imperative</th>
<th>Optative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>-eti</td>
<td>-etu</td>
<td>-oit</td>
</tr>
<tr>
<td>Passive</td>
<td>-otoi</td>
<td>oitou</td>
<td>-oitou</td>
</tr>
</tbody>
</table>

Table Six: renewal completed

The imperative forms shown in Table Six are internally redundant, distinguishing both formant (e/o active versus oi passive) and ending (-tu active, -tou passive). Neither of the other moods has this double distinction. In the indicative there is a single formant (ablauting e/o) which marks the mood, while the two voices are distinguished by ending (-ti active, -toi passive). So in the optative. The imperative redundancy leads to a certain ambiguity—is it the formant distinction or the ending distinction which marks voice, and which element marks mood? We need not be surprised if the redundancy should be eliminated and the ambiguity clarified by the creation of a single marker for mood. Note, though, that a standardization of the formant (whether to e/o or to oi) would group the imperative with one of the other moods, somewhat reducing its modal distinctiveness and forcing the endings to bear both mood and voice distinctions. The other alternative, standardization of ending, is clearly preferable and is shown in Table Seven.
indicative    imperative    optative
active       -eti       -etou       -oit
passive      -otoi      -oitou      -oitou

Table Seven: clarification of the imperative

The ending -tou marks the mood, while the two voices are distinguished by the formants (e/o active, oi passive). As in the indicative and optative, there is now a single marker for mood in the imperative, and voice is unambiguously distinguished by variation in a single element.

From Table Seven we can derive by regular changes the Germanic third singular forms, imperative active *-ēau, optative (and imperative) passive *-aiōau. But for the thematic vowel in the imperative active, these Germanic forms are identical to the Gothic. In fact, to accept them for Gothic, we need only believe that Germanic *-au did not monophthongize in final position until relatively recent times. The only bit of evidence opposing this thesis is the fact that Germanic *-ai in absolute finality apparently did monophthongize (to *-ē) rather early. In the past, many scholars have wished to assume the parallel development of *-ai and *-au in pre-Gothic final syllables. But there is no evidence to support this assumption and there is a counter-assumption to be drawn from the secondary diphthongs *-ij and *-uw. In Subsection 2.9.4 it was argued that *-ij (compare *-ai) monophthongized and shortened while *-uw (compare *-au) remained. Unless and until evidence is presented to demonstrate the parallel development of *-ai and *-au in Germanic absolute finality, I believe we may accept as a possibility the above
derivation of -au in the Gothic third singular imperative and passive optative.

There remains the problem of the thematic vowel in the third singular imperative. Actually, however, this problem is easily removed. The Indo-European forms of the second and third persons singular and plural active imperative are given below in Table Eight.

<table>
<thead>
<tr>
<th></th>
<th>sg.</th>
<th>2</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>-etu → -otu</td>
<td></td>
</tr>
<tr>
<td>pl.</td>
<td>2</td>
<td>-ete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-ontu</td>
<td></td>
</tr>
</tbody>
</table>

Table Eight: Indo-European imperative forms

Replacement of *-etu by *-otu on the model of the plural ablaut pattern (e-grade for second person, o-grade for third) could have occurred at any stage between Indo-European and Germanic.

Returning now to Markey's theory, we note that he postulates (p. 46) an original imperative third singular in *-o-to(d)—a reasonable starting point if the final (d) can actually be ignored. As he correctly notes, *-otō would become Gothic -ada, thus merging with the passive indicative. He writes (p. 46): "We suggest that the Goth. 3. pers. imp. was a late secondary formation originally derived from *-tō(d) and that -au was introduced from the formally comparable and semantically related opt. mediopassive to avert pernicious homophony induced by coalescence of the indicative mediopassive and imperative on the one hand and the indicative active and imp. on the other." Markey's theory depends on the prior existence of -au in the third singular passive optative. He proposes that *-ojm in the first
singular active optative became -au, that -au spread to the first
singular passive optative, thence to the third singular passive
optative, thence to the imperative. It has been noted above, however,
that both the existence and the proposed development of *-ojm are
open to doubt, and also that -au in the active optative can be
rather plausibly explained as coming from the passive optative
(3.4.2). In fact, as regards the relationship of optative and
imperative forms in Gothic, Markey's theory and the one presented
here are virtual mirror-images, differing primarily in their need
for *-ojm. Since it does less violence to the West Germanic
developments, I will here prefer the theory outlined above (third
singular imperative from *-etu; first singular active imperative
from *-ojm --not *-ojm). I will grant, however, that Markey's
proposal is also worthy of attention.

Remaining imperative forms.

The Germanic imperative second plural *-e5e developed regularly
to Gothic -ib, thus agreeing with indicative -ib (< *-e5i). It is
perhaps this phonologically regular agreement in the plural which
accounts for the agreement of imperative/indicative -ats in the dual.
As regards the first person plural, Wolfgang Krause is perhaps correct
in stating that "Die Endung des Ipv. (Adhortativ) bairam ist der Form
des Ind. nachgebildet."—Handbuch des Gotischen, 3rd ed. (Munich,
1968), p. 261. H. Craig Melchert has pointed out to me (private
communication) that Hittite uses the first plural present indicative
for the voluntative "Let's . . .", a fact which suggests that Germanic
may have inherited the agreement of indicative and imperative in the
first person plural. Following Kurylowicz, however, (Inflectional Categories, P. 137), one might wish to see in the Germanic form an 'injunctive' ending, *-me. Final *-au of (unattested) third plural *-andau developed along the lines described above for the third singular.
SUBSECTION 3.4.4

Present passive: indicative and optative

The table below lists pre-Germanic, Germanic, and Gothic forms of the present passive indicative and present passive optative.

<table>
<thead>
<tr>
<th>pre-Germanic</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>ind. sing. 1</td>
<td>-otoi</td>
<td>-aḏai</td>
</tr>
<tr>
<td>2</td>
<td>-osoi</td>
<td>-azai</td>
</tr>
<tr>
<td>3</td>
<td>-otoi</td>
<td>-aḏai</td>
</tr>
<tr>
<td>plural</td>
<td>-ontoi</td>
<td>-anḏai</td>
</tr>
<tr>
<td>opt. sing. 1</td>
<td>-oito</td>
<td>[-aiḏau]</td>
</tr>
<tr>
<td>2</td>
<td>-oiso</td>
<td>[-aizau]</td>
</tr>
<tr>
<td>3</td>
<td>-oito</td>
<td>[-aiḏau]</td>
</tr>
<tr>
<td>plural</td>
<td>-ointo</td>
<td>[-ainḏau]</td>
</tr>
</tbody>
</table>

138. The lack of distinct first and second plural forms is old: see Watkins, p. 128.

Development of the indicative forms into Gothic is perfectly regular—see Section 2.6. Renewal of the optative third singular to *-oitou was described in Subsection 3.4.3. Note that first and third singular were identical both before and after the renewal. From *-oitou, *-oiso, *-oitou, one easily derives *-oitou, *-oisou, *-oiso —particularly with the indicative as a model. Third plural *-oìto > *-oíntou paralleled third singular *-oito > *-oitou.
SUBSECTION 3.4.5

Past active indicative

The table below gives Indo-European, Germanic and Gothic forms of the past active indicative endings in so far as these can be determined.

<table>
<thead>
<tr>
<th></th>
<th>Indo-European</th>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing. 1</td>
<td>-H₂e &gt; -a</td>
<td>-a</td>
<td>-Ø</td>
</tr>
<tr>
<td>2</td>
<td>-tH₂e &gt; -t(h)a</td>
<td>-ḥa (-ta)</td>
<td>-t</td>
</tr>
<tr>
<td>3</td>
<td>-e</td>
<td>-e</td>
<td>-Ø</td>
</tr>
<tr>
<td>dual 1</td>
<td>-we (-uwe)</td>
<td>-we (-uwe)</td>
<td>-u</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>?</td>
<td>[-uts]</td>
</tr>
<tr>
<td>plural 1</td>
<td>-m</td>
<td>[-ume]</td>
<td>-um</td>
</tr>
<tr>
<td>2</td>
<td>-te</td>
<td>[-u₀e]</td>
<td>-up</td>
</tr>
<tr>
<td>3</td>
<td>-nt</td>
<td>-unt</td>
<td>-un</td>
</tr>
</tbody>
</table>

The singular endings are perhaps universally identified with the forms of the Indo-European "perfect". Invariant -ṭ (where one might expect -t beside -ḥ) in the second person was attributed to the presence of a laryngeal in Indo-European by Christian S. Stang, "À quoi correspond en Germanique le th Sanscrit?," NTS 15 (1949), pp. 335-342. Stang's explanation was convincingly rejected by Ingerid Dal, "Über die germanische Entsprechung von altind. th," NTS 16 (1952), pp. 328-333. Extension of -t from forms in which

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it was regular is described by Gunnar Bech, "Das Schicksal der
pp. 75-92.

The first person dual, -u, was explained by Alois Walde,
Die germanischen Auslautgesetze (Halle, 1900), p. 138, as derived
immediately from *-ū and ultimately from *-uw (< *-w- by Sievers'
(London, 1954), p. 139; and Ernst Kieckers, Handbuch der vergleichende
As explained in Section 2.5 of the present study, derivation of -u
from *-ū is unnecessary. In Section 2.9 (especially 2.9.4), it
was suggested that final *-uw did not monophthongize and that it is
this diphthong which is reflected in the final orthographic -w of
such Gothic words as gaidw. Why then do we not find e.g. *berw beside
budu in the first person dual? In the wo-stem nouns, phonemic /w/
in final position was supported and thus maintained (not restored)
by oblique forms with medial -w-. In the dual, however, final /w/
was not supported by other forms and was therefore susceptible to
replacement by /u/. That is, *berw, budu became beru, budu. This
development was no doubt furthered by the uniform -u- (not *-uw-)
of the plural endings and by the closeness of dual and plural endings
not only in the verb but also in the pronouns (q.v.).

The second person dual in -uts is clearly modeled after the
present forms (see 3.4.1 and following). Medial -u- perhaps follows
the 'u-thematicization' of the plural, the same process which led to
reduction of the doublet in the first person dual. Formation of the
attested second person dual is probably later than extension of -u-
in the plural, and may be later than the development of \(-u\) (*-uw) in the first dual.

The forms of the plural are not entirely appropriate to the Indo-European "perfect", but seem to reflect secondary endings added to a connecting vowel, \(-u\). This Germanic deviation in the plural has led some scholars to propose syncretism between perfect and aorist forms in pre-Germanic. See, for example, Jakob Sverdrup, "Der Aorist im germanischen Verbalsystem und die Bildung des starken Präteritums," in Festschrift til Hjalmar Falk (Oslo, 1927), pp. 296-330. However, in "Diachronic development of structural patterns in the Germanic conjugation system," Proceedings of the ninth international congress of linguists (The Hague, 1964), pp. 870-880, Edgard G. C. Polomé has demonstrated "that . . . the evidence adduced to assume the continuation of IE aorist-forms in the Germanic preterit system appears to lack cogency and that a satisfactory explanation of the latter can be given on the mere basis of the IE 'perfect'." (p. 870). Compare also Calvert Watkins, Geschichte der indogermanischen Verballflexion, Indogermanische Grammatik, ed. by Jerzy Kurylowicz, Band III: Formenlehre, Erster Teil (Heidelberg, 1969), pp. 43-44, 45-46.

In "Zur Accent- und Lautlehre der germanischen Sprachen," PBB 5 (1878), pp. 119-120, E. Sievers proposed that the first plural ending -um developed from syllabic *-\(\overline{m}\), which arose after the loss of final *-e (*-me > *-\(\overline{m}\)). According to Alois Walde, Die germanischen Auslautgesetze (Halle, 1900), p. 110, Sievers later abandoned this explanation. Yet one finds it repeated by, among others, Joseph Wright, Grammar of the Gothic Language, 2nd ed. (London, 1954),
p. 139; and by Hans Krahe and Elmar Seebold, Historische Laut- und Formenlehre des Gotischen, 2nd ed. (Heidelberg, 1967), p. 128. James W. Marchand has argued that the change *-me > *-m cannot be a regular one in pre-Gothic. In "Notes on the origin of some Gothic inflectional endings," MLN 72 (1957), p. 108, he has written, "Such a process seems highly improbable, in view of such Gothic forms as -bagm (R 11, 24), stikl (J 18, 11), etc."

Marchand's own explanation of the first plural is based on Sievers' Law and the proposed development *-me > *-\text{h}me (*-\text{m}me) > -um(e) after a long syllable (p. 108). However, there is no Gothic evidence for the application of Sievers' Law to liquids and nasals, and evidence from the other Germanic dialects is debatable (see Sections 3.1.6, genitive singular, dative singular; 3.1.7, dative plural).

It is perhaps more likely that -u- was merely extended throughout the plural from the third person, where it developed regularly. The shift *-nt > *-unt called forth a re-analysis of the third plural as containing a connecting vowel -u- plus the ending *-nt found also in the optative and clearly related to the *-n\text{b}i of the present indicative. In comparison with the optative and present indicative forms, -u- could only be interpreted as a preterit plural stem formant. Its extension throughout the plural merely confirmed it in this role, while simultaneously clarifying the relationship of *-nt to the other third plural endings. As noted by Polomé ("Diachronic development," p. 874), the introduction of -u- as a secondary number marker in the second plural form had the further advantage of "eliminating the morphophonemic changes occurring
in the Germanic verbal stems ending in fricatives, the more so as these changes were blurring out the contrast between singular and plural in the preterites without internal vowel alternation . . ."

On the third plural form itself, see Polomé pp. 874-878; Watkins, pp. 43-44.
### SUBSECTION 3.4.6

**Past active optative**

The table below gives Germanic and Gothic forms of the past active optative. Gothic entries are orthographic.

<table>
<thead>
<tr>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>sing.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-īm</td>
</tr>
<tr>
<td>2</td>
<td>-īs</td>
</tr>
<tr>
<td>3</td>
<td>-īt</td>
</tr>
<tr>
<td>dual</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>?</td>
</tr>
<tr>
<td>plural</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-īme</td>
</tr>
<tr>
<td>2</td>
<td>-īpe, -īœ</td>
</tr>
<tr>
<td>3</td>
<td>-īnt</td>
</tr>
</tbody>
</table>

On the Indo-European (athematic) optative, see Oswald Szemerenyi, *Einführung in die vergleichende Sprachwissenschaft* (Darmstadt, 1970), p. 241. Germanic had standardized the optative marker *-ī- throughout the paradigm. The first person dual is not attested in Gothic.

In Gothic, first and third singular ought to agree, as in West Germanic. Earlier Gothic first singular *-i* has been renewed with the distinctive first singular active optative ending from the present optative (*-i + au > -jau*). Thus Joseph Wright, *Grammar of the Gothic language*, 2nd ed. (London, 1954), p. 139; R. C. Boer, *Oergermaansch*
Handboek (Haarlem, 1924), p. 248; Wolfgang Krause, Handbuch des Gotischen, 3rd ed. (Munich, 1968), p. 226. Third singular -i indicates that the shortening of *-i followed the loss of *-t in absolute finality. Dual and plural forms should be compared with those of the present active optative (Subsection 3.4.2).
SECTION 3.5

The weak verb present systems
(first, second, and fourth classes)

For quite some time now, most work on the so-called weak verbs in Germanic has been aimed at elucidating the preterit formation. A good survey of this work is provided by Guy A. J. Tops, The origin of the Germanic dental preterit, a critical research history since 1912 (Leiden, 1974). From this review, one fact emerges clearly: the weak verb preterit has been and remains highly controversial. Not only the origin of the dental but even the form of the endings in Germanic is a matter of honest debate. Unfortunately, this debate is one to which the present study has little to contribute. The historical development and descent of the dental preterit is a Germanic problem which no study of a single dialect can hope to solve. At the same time, the unsettled state of our knowledge about the dental preterit makes that formation practically useless for determining phonological developments in a given dialect. For these reasons, I will ignore the dental preterit in what follows below.

For similar reasons, I will also ignore the third weak present system. Two recent and excellent studies of these verbs have presented accounts which differ radically in their phonological implications and suppositions. See Jay H. Jasanoff, "The Germanic third weak class," Language 49 (1973), pp. 850-870; and James Dishington, "Functions of the Germanic e-verbs," Language 52 (1976), pp. 851-865.
With such difference of informed opinion, any attempt to argue from the third weak verbs to a firm set of diachronic phonological developments must seem premature. Rather, explanations of the third weak class must be tested for phonological plausibility against developments noted elsewhere.

Here, therefore, I will focus my attention on the first, second, and fourth weak verb present systems. While some controversy exists even in these areas, much of it concerns internal Gothic developments and is open to fruitful investigation within the limits of this study.
SUBSECTION 3.5.1

The first weak class

Several Indo-European formations lie behind the Germanic first weak class. They are discussed quite clearly by Wilhelm Streitberg, *Urpermanische Grammatik*, 4th ed. (1895; reprint, Heidelberg, 1974), pp. 299-302, 304-306; and by Ernst Kieckers, *Handbuch der vergleichenden gotischen Grammatik*, 2nd ed. (1927; reprint, Munich, 1960), pp. 225-234. In early Germanic, the various Indo-European types can be reduced, morphologically, to two stem formants: *-j-* and *-ej-*. To these were added the thematic endings which appear as well in the strong verb.

The type characterized by *-j-* was subject to Sievers' Law (see Section 2.9) so that one finds an allophonic variation of endings conditioned by metrical length. The active indicative singular, for example, probably displayed the following forms (ignoring spirant doublets):

<table>
<thead>
<tr>
<th></th>
<th>short stem</th>
<th>long stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-jō</td>
<td>-ijō</td>
</tr>
<tr>
<td>2</td>
<td>-jezi</td>
<td>-ijezi</td>
</tr>
<tr>
<td>3</td>
<td>-ješi</td>
<td>-iješi</td>
</tr>
</tbody>
</table>
The type characterized by *-ej- was not subject to Sievers' Law, so that one would expect the following active indicative singular forms regardless of stem length:

1. \(-ejo\)
2. \(-ejëzi\)
3. \(-ejeëi\)

In Gothic, however, one finds only the pattern appropriate to the *-i- type; Sievers' Law applies to all the first weak verbs regardless of their typological history.

In 1900 Alois Walde offered a phonological explanation for this fact in Die germanischen Auslautgesetze, pp. 150-158. He begins with such forms as second singular *-ijizi which reflect the shift of *e to *i. From these he postulates (1) a loss of *-i- before *i, and (2) a development of the resulting *-ii- (e.g. *-iizi) to *-ji- after short syllables, *-i- after long syllables (p. 153).

Walde must believe that *-ii- is to be kept distinct from *-i-, otherwise his second rule would affect the strong verb preterit optative marker (*-i-), changing it to **-ji- after short stems. It is not clear to me, however, that such a distinction is phonemically possible, and particularly so in view of modern studies which analyze the Germanic long vowels as phonemic geminates. See, for example, William Charles Crossgrove, Vowel quantity in Proto-Germanic, University of Texas Ph. D. dissertation, 1962 (DA 63-1652; Ann Arbor: University Microfilms).

As idea somewhat similar to Walde's was put forth by Winfred P. Lehmann in "The Proto-Indo-European resonants in Germanic,"
Lehmann argues that *i and *j (and other syllabic/non-syllabic pairs) retained their co-allophonic status into Germanic times. He goes on to note that, should this be the case, then Sievers' Law (j → ij/[long stem] V) might imply its own converse (ij → j/[short stem] V). It is, Lehmann believes, the converse of Sievers' Law which explains the merger of the *ej verbs with the *i type in the Germanic first weak class.

Lehmann's proposal was rejected by James W. Marchand in "The 'converse of Sievers' Law' and the Germanic first class weak verbs," Language 32 (1956), pp. 285-287. Marchand seeks to demonstrate that the allophonic relationship of *i and *j was disrupted by the shift of *e to *i—the very shift which, according to Lehmann, called into action the converse of Sievers' Law. Lehmann defended his proposal in "A definition of Proto-Germanic; a study in the chronological delimitation of languages," Language 37 (1961), pp. 67-75 (especially pp. 71-73). But in 1972 Peter H. Erdmann cited clear West Germanic evidence against the converse—"Suffixial j in Germanic," Language 48, pp. 407-415 (especially pp. 407-410). It now appears that the merger of the *-ej- type with the *-i- type cannot be explained entirely by regular phonological processes.

Probably one must return to the partly phonological, partly analogical explanation offered by Streitberg, U r g e r m a n i s c h e G r a m m a t i k, p. 306 (compare Marchand). With the shift of *e to *i, the *-ej- type merged with the long-stemmed *-i- type (e.g. second singular indicative *-ejezi > *ijizi). This phonological merger was interpreted as a morphological assimilation to the *-i- pattern. The *-i- pattern entailed a metrical distinction which the assimilating
verbs necessarily adopted. That is, *-i\_j- was restructured to *-\_j- after short stems. Phonemically, /i\_j-/ was replaced by /\_j/.

Table One lists the present active indicative forms of the first weak verbs. Metrically conditioned variants are considered, though Gothic entries are given in Gothic orthography. As noted in Section 2.9, Gothic orthography may not reveal all allophonic alternations. Germanic doublets are not listed—see Subsection 3.4.1 for the possibilities.

<table>
<thead>
<tr>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td>short stem</td>
<td>long stem</td>
</tr>
<tr>
<td>sing. 1</td>
<td>-jo</td>
</tr>
<tr>
<td>2</td>
<td>-jezi</td>
</tr>
<tr>
<td>3</td>
<td>-je_o_i</td>
</tr>
<tr>
<td>dual 1</td>
<td>-j_o_wez</td>
</tr>
<tr>
<td>2</td>
<td>-je_o_ez</td>
</tr>
<tr>
<td>plural 1</td>
<td>-jamez</td>
</tr>
<tr>
<td>2</td>
<td>-je__e</td>
</tr>
<tr>
<td>3</td>
<td>-jan_o_i</td>
</tr>
</tbody>
</table>

Table One: present active indicative

The development of ei forms (that is, [\_i\_] forms) has been described in Section 2.9, as has the possibility that orthographic j may represent [ij] after long stems. The other endings have been discussed in Subsection 3.4.1.

Save for the second singular and second plural imperative, all other present endings (active optative, passive, etc.) are identical.
to the strong verb endings preceded by -i-. See 3.4 for discussion. The second plural imperative has the endings -jib (short stem), -eib (long stem)—a perfectly regular alternation.

In contrast to the second plural, the second singular imperative is not regular at all. The ending is -ei for both short and long stems alike. Not only is there no metrical distinction, but *-i, not -ei, is the expected ending even for long stems (compare 2.9.2). Walde, *Die germanischen Auslautgesetze*, p. 148, suggests that the ending -ei was extended to the imperative from the second and third singular active indicative in long stems. Short stems then took it over as well. The model for the extension was provided by the second weak verbs (indicative -ös, -ob; imperative -o) and the third weak verbs (indicative -ais, -aib; imperative -ai).

In his review of Walde's book (*ZfdP* 34 [1902], pp. 114-126), Victor Michels found the explanation of -ei in short stems weak but acceptable (p. 117). Actually, however, no part of Walde's theory can stand close scrutiny since, for one to explain the first weak imperative by the second and third weak imperative, it is necessary that these last have some well-understood derivation. As noted in the introductory remarks to this section, however, the history of the third weak class is still unsettled, and it is not clear at all that the third weak imperative in -ai is phonologically regular. Indeed, a postulate that the third weak imperative is modeled on the first weak would be every bit as plausible as its converse since neither form has a clearly understood derivation.

As regards the second weak verb, we cannot be absolutely certain whether the formation was thematic or athematic, though the latter...
is perhaps slightly more likely (see 3.5.2). In this case, however, the imperative would have been Indo-European *-eH₂-∅, Germanic *-a, Gothic *-a --hardly a model for first weak -ei. We can explain the attested second weak imperative -o by an analogy modeled on the strong verbs. The pattern is: strong second singular imperative equals bare stem (after loss of final *-e); second weak stem equals -o-; therefore, second weak imperative equals -o. Compare Hermann Paul, "Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialekten," PBB 4 (1877), p. 474. If this analogy operated in the second weak verb, however, we might expect it to operate in the first weak as well. There, though, the analogy would lead to imperative -i (< /-j/#), not to -ei.

It would appear that neither the second weak nor the third weak imperative provides a good model for reformation of the first weak. For the sake of argument, however, let us suppose that the analogy which produced second weak imperative -o affected only the second weak verbs and that it then ceased to operate so that a new analogy could reform the first weak. This new analogy (Walde's) would state that the second singular imperative equals the second singular indicative minus -a (and the third singular indicative minus -b). Again for the sake of argument, let us ignore the fact that the new analogy is opposed by the strong verbs and the fourth weak verbs, and let us examine the first weak. One of the most striking features of this class is the alternation of indicative endings according to Sievers' Law. Accordingly, if a first weak imperative ending were modeled on the second weak indicative-imperative relationship, we should expect the new ending to conform.
immediately to Sievers' Law. At the very least, we should expect an alternation -ji/-ei, not a uniform -ei.

We might, however, suspend Sievers' Law to enable the analogy to proceed, but this third suspension of difficulties must surely carry us beyond the realm of empirical argument. In fact we may wish, at this point, to ask why the proposed analogy should have occurred in the first place, for it would appear that the unreformed first weak imperative in *-j conjugations was in perfect harmony with the strong verbs, the (reformed) second weak verbs, and the fourth weak verbs, in all of which imperative equalled bare stem.

One hesitates to challenge an old and widely accepted hypothesis. Yet, in the present instance, it appears that the current view has little to recommend it. In a situation of this sort, confronted by a form which is not phonologically regular and for which no obvious analogical explanation presents itself, one might be forgiven a radical departure from traditional views. Such a departure, while likely to be highly controversial, may at least spark counterarguments which will bring us closer to a proper understanding. It is in this hopeful, rather than dogmatic, spirit that I offer the following remarks.

It seems certain that the first weak second singular imperative is not to be derived by regular phonological processes and that it is probably to be explained through some sort of analogical restructuring. We have seen above, however, that the current analogical proposals seem unable to account for the form. We might note, however, that the analogies proposed to date are assimilatory in nature; the first weak imperative is supposed to have been reformed so as to
be more like some other morpheme. Specifically, *-i is supposed to have been lengthened so as to be more like -o of the second weak imperative. Since this proposal does not seem able to solve the problem, and since some sort of analogy seems called for, we are led to seek another type of analogical process. Since the traditional proposal is assimilatory, we might think to turn it around and to ask whether a dissimilatory process might not be more revealing.

Having asked this, however, we are led to inquire what the motivation of a dissimilatory morphological reformation might be. Most plausibly, perhaps, it would involve restructuring to avoid homophony. That is, we might postulate, for the sake of exploration, that the first weak second singular imperative was restructured from *-i to -ei because the inherited form was uncomfortably similar to some other form with which it shared enough systematic and semantic features that confusion between the two was both possible and undesirable. Following this line of speculation, it is clear that, had morphological dissimilation occurred, we should expect to find a clue to the reformation of the first weak imperative if we could locate another verbal ending identical to the pre-dissimilation imperative, *-i. This other verbal ending would be the form from which the imperative had dissimilated, and its function might reveal why the dissimilation had been deemed desirable. A quick survey of the major Gothic verbal inflections reveals that there is only one surviving morpheme identical to the pre-dissimilation imperative *-i. This morpheme is the strong verb third singular preterit optative.

At first sight, the form does not seem overly revealing. How, we might ask, can we oppose the preterit optative third singular of
strong verbs to the present imperative second singular of first weak verbs? What possible link can there be between these forms?

Taking the differences one-by-one, we notice that the preterit optative of strong verbs is identical to the present optative of the so-called preterit-present verbs in Gothic. That is, the preterit-present verbs enable us to place what is otherwise a preterit form in a present tense system which might be opposed to the present imperative of the first weak verbs.

Once our attention has been called to the preterit-present verbs, we note that these verbs have no true imperative forms but use, for the imperative, the optative—see T. L. Markey, "Gothic imperatives in -au," Studia Linguistica 26 (1972), p. 44. That is, the preterit-present verbs enable us to place what is otherwise an optative form in an imperative mood which might be opposed to the present imperative of first weak verbs.

It remains to be asked, however, whether the preterit-present verbs and the first weak verbs have some shared feature or common ground on which we can contrast imperative endings. That is, granting that the first weak present imperative second singular is functionally similar to the preterit-present imperative third singular (equals strong verb preterit optative third singular), is there any reason to suppose a close enough association between the first weak verbs and the preterit-present verbs that the two imperative endings might lead to ambiguity? Recall that it is only if such ambiguity is a reasonable possibility that we may postulate dissimilation to avoid homophony.
Considering the two inflections, one sees that there may indeed be a common bond. Specifically, the past tense of the preterit-present verbs is weak and can be compared, synchronically, to the first weak preterit without connecting vowel. Compare first weak third singular preterit indicative waúrhta 'he worked' and preterit-present third singular preterit indicative baúrfta 'he needed'. This identity in the past tenses may enable us to bring the present tenses of the first weak and preterit-present verbs into direct opposition. If we do so, and if we may postulate a similar association on the part of Gothic speakers, then we discover that the ending *-i would have indicated both a second singular imperative (first weak) and a third singular imperative (preterit-presents) in verbal systems which might have been closely enough related that the homophony would lead to undesirable ambiguity. Compare Table Two.

<table>
<thead>
<tr>
<th>first weak</th>
<th>preterit-present</th>
</tr>
</thead>
<tbody>
<tr>
<td>2    *-i</td>
<td>-eis</td>
</tr>
<tr>
<td>3    -jadau</td>
<td>-i</td>
</tr>
</tbody>
</table>

Table Two: imperative forms

Given, in the imperative, what might have been a stress-producing ambiguity between the first weak second person and the preterit-present third person, we might expect that one or both of these endings would be renewed so as to restore contrast. Note, though, that the preterit-present third singular is part of a unified indicative-optative (-imperative) system the single most striking feature of which is its exact and complete agreement with the strong verb preterit. Change in the preterit-present would therefore

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be unlikely since it would be opposed by the entire weight of the strong preterit.

Change in the first weak would be somewhat more likely since the first weak already stands a bit apart from the strong verb by reason of its stem-forming -s-. If, then, reformation would be more likely to affect the first weak second singular imperative, we are bound to ask what the basis for this renewal might be. Clearly it could not be the strong verb, since agreement between the strong verb and the first weak as regards the sign of the second singular imperative (equals bare stem) is what created the conflict with the preterit-present in the first place. Rather, the resolution of the problem is perhaps to be sought in the systematic contrast which embodies the problem itself.

The conflict between first weak and preterit-present in the imperative is one of person. To resolve this conflict, one must presumably clarify the marker for person in the first weak second person imperative. In the preterit-present, second person is distinguished from third by vowel length and by the presence of final -s. Seemingly one or both of these attributes might be applied to clarify second person in the first weak imperative. We must note, however, that the addition of -s to first weak imperative *-i would be inappropriate since it would yield a form (*-is) which might be confused with second singular indicative endings. Indeed, in the Gothic strong verb and the inherited first weak, the major synchronic distinction between second person in the imperative and second person in either of the other moods (indicative or optative) in absence of -s.
We might also note that application of both -s and vowel length to first weak imperative *-i would entail problems of another sort. The resulting form *-is would be identical to an ending which is, but for its use in the preterit-present imperative, primarily an optative marker. Yet reformation of the first weak imperative calls for a form which is clearly imperative and not optative since the first weak distinguishes these moods.

One possibility remains: application of vowel length (one of the distinguishing characteristics of second person in the preterit-present imperative) to clarify person in the first weak imperative. This would yield a reformed first weak imperative *-I. The new ending would have the long vowel characteristic of second person (vis-à-vis third), yet would lack the -s which would otherwise mark it as indicative or optative (vis-à-vis imperative). As we have noted above, I, orthographic -ei, is exactly the form attested in the first weak imperative second singular.

The reformation proposed above clearly occurred (if it occurred at all) after the shortening of final *-I, which rule ended the application of Sievers' Law to /-j/ in absolute finality and created a single first weak second singular imperative ending (*-i) regardless of stem length (see 2.9.4). It is for this reason that the renewed ending, like the form it replaced, is insensitive to preceding quantity. Shortening of *-I also created the (possible) conflict with the preterit-present imperative which perhaps motivated the reformation.

I am aware that the proposal outlined above is both unusual and highly speculative, and I do not anticipate that it will receive
unhesitating acceptance. I would suggest, however, that with the seeming weaknesses of the traditional account, aspects of this new approach may form the basis for fruitful further study.
The second weak class

The Germanic verbs in -ō- continue one, or possibly both, of two Indo-European denominative formations. One formation was thematic (*-āje-), the other athematic (*-ē-). West Germanic, or more accurately Ingvaonic, is supposed to reflect the former, Gothic and Old High German the latter—see Hermann Hirt, Handbuch des Urgermanischen, Teil II: Stammbildungs- und Flexionslehre (Heidelberg, 1932), p. 179. In 1879, G. H. Mahlow proposed that such thematic endings as *-ājisi (< *-ājesi) had reduced to *-ōis etc. by loss of *i before *i; thence to *-ōs — Die langen Vocale AEO in den europäischen Sprachen (Berlin), pp. 42-44. In this way Mahlow was able to explain the Ingvaonic paradigm. He was followed by Rudolf Kögel, "Die schwachen Verba zweiter und dritter Klasse," PBB 9 (1884), pp. 504-523. But in 1890 Hermann Collitz raised the following objections:

... Die j-bildungen gehen im Ahd. wie im As. und Ags. den unursprünglichen j-bildungen in der ai-conjugation parallel, und werden in beiden fällen für analogiebildungen nach der j-conjugation gelten müssen. ... Zutreffender scheint mir Johansson De derivatis verbis contractis ling. graecae (Upsala 1886) s. 171ff. 182 u. 201. die flexion der german. ō-verba beurteilt zu haben. Er knüpft sie und die ihnen genau ent-
sprechenden lat. a-verba an zwei ursprüngliche typen an.

1) abgeleitete verba mit einem präsensstamme auf -a-je- (l. sing. -a-jö) und einem ausserpräsentischen (sog. "allgemeinen") Stamme auf -a-, 2) primäre verba auf -a- (l. sing. -a-mi). Beide trafen in den "allgemeinen" tempora in dem a-stamme überein, was zur folge hatte, dass bei der ersteren klasse der a-je-stamm des präsens allmählich durch den a-stem verdrängt wurde. Demnach ist das germanische o so wenig wie das lateinische a durch "contraction" mit j zu stande gekommen.

Die annahme einer contraction oj o lässt sich auch mit den germanischen lautgesetzen schwerlich vereinigen; es wäre dafür im Gotischen entweder oji oder ai zu erwarten. Hinzufügen möchte ich zu J.'s ausführungen noch, dass auch im conjunctiv praes. der a-verba dass o nicht etwa aus o + ai contrahiert ist.

Wir haben vielmehr in dem conjunctiv der o-conjugation einen wirklichen rest des alten conjunctivs zu sehen; salbös stimmt ja zu ög-s.

--Die Behandlung des urspr. auslautenden ai im Gotischen,
Althochdeutschen u. Altsächsischen, Besonderer abdruck aus dem XVII. bande der "Beiträge zur Kunde der indogermanischen Sprachen" (Gottingen: Vandenhoeck und Ruprecht), p. 50, anm. 1.

Perhaps the most important observation offered by Collitz is that the attested j-forms are secondary. This point has now been established beyond a resonable doubt by Warren Cowgill, "The inflection of the Germanic o-presents," Language 35 (1959), pp.
l-15 (especially pp. 7-9). [Cowgill also discusses some of the earlier literature.] There seems to be, therefore, no direct evidence for the thematic formation in Germanic, though Cowgill defends a revised and extended form of Mahlow's hypothesis.

George S. Lane has argued persuasively for the athematic type in "Germanic weak verbs in -on: an archaism," Language 32 (1956), pp. 420-422 (especially p. 421). [Lane, too, reviews earlier theories (p. 420).] It is impossible to state categorically that the thematic type was not also inherited by Germanic, but it seems safe to say that the athematic type was morphologically dominant and that the thematic type was assimilated to it either anaologically (Collitz) or by regular phonological change (Mahlow-Cowgill).

Singular and plural forms of the present indicative active are given below in Table One. No dual forms are attested in Gothic.

<table>
<thead>
<tr>
<th>Germanic</th>
<th>Gothic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>sing.</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-āmi</td>
</tr>
<tr>
<td>2</td>
<td>-āsi</td>
</tr>
<tr>
<td>3</td>
<td>-āpi</td>
</tr>
<tr>
<td><strong>plural</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-āmez</td>
</tr>
<tr>
<td>2</td>
<td>-āde</td>
</tr>
<tr>
<td>3</td>
<td>-ānōi</td>
</tr>
</tbody>
</table>

Table One

The first singular ought to be Gothic *-ōm*, but, in the strong verb and first weak, first singular equals first plural minus -m (-a : -am). According to this pattern, first singular *-ōm* was
reformed to $\tilde{o}$ ($-\tilde{om} : -\tilde{om} \rightarrow \tilde{o} : -\tilde{om} = -a : -am$). See M. H. Jellinek, Geschichte der gotischen Sprache (Berlin, 1926), p. 157; Ernst Kieckers, Handbuch der vergleichenden gotischen Grammatik (1927; reprint, Munich, 1960), p. 238. As noted by Kieckers, this reformation occurred after Germanic $\ast-\tilde{o}$ had become $-a$ in absolute finality. Other Gothic endings of the indicative are perfectly regular.

The optatives of the second weak class have always been difficult since no optative marker is evident (West Germanic optatives are clearly secondary). Indeed the difficulty is so great that earlier scholars derived these forms from an Indo-European conjunctive or injunctive. See, among others, Collitz, op. cit.; Klaudius Bojunga, "Der indogermanische Konjunktiv im Germanischen," IF 2 (1893), pp. 184-197; Jellinek, op. cit.; Kieckers, op. cit. 238-239. But the theory is weak. As Cowgill has pointed out: "In both cases we have to assume that a formation otherwise unknown in Germanic was preserved, and in just those verbs where it led to maximum confusion between indicative and optative!" (p. 4). Indeed, it is the problem of the optative which provides the best evidence for Mahlow's rule (expanded by Cowgill).

The indicative-optative distinction was such an important one in Germanic that its partial effacement in the Gothic second weak can only be due to phonological developments. However, one need not (with Cowgill) deduce from this that the second weak optative was necessarily thematic. On the contrary, the athematic optative sign $\ast-\tilde{i}$- plus the formant $\ast-\tilde{a}$- ($= \ast-\tilde{a} + \tilde{i}$-) could very well have become $\ast-\tilde{aji}$-, thus falling under Mahlow's original rule ($\ast-\tilde{aji}$- >
*-āi- > *-ā-/ō-). There is, however, some question about this development. If the change were Germanic, then first and third singular forms are irregular in most or all of the dialects. Alternatively, if these forms are regular, then the change must have occurred independently in several areas.

For Gothic, the first singular form is perhaps a replacement. Since first singular *-aim (in the strong verb) develops like *-ai in absolute finality (see 3.4.2), we might expect *-aim (< *-ājim) to develop like *-āi in absolute finality. The expected form would then be *-ai. (Such a development in North Germanic may have provided the basis for assimilation of the second weak optative to the strong verb pattern; see, however, Cowgill, pp. 10-11).

Assuming, on no evidence one way or the other, that Mahlow's rule operated after the loss of final *-t (in post-Germanic times?), one might also expect *-ai in the third singular, but *-ās*/*-ōs in the second singular. If these forms existed in pre-Gothic, then one might postulate a renewal of the third singular from the second according to the strong verb pattern:

<table>
<thead>
<tr>
<th></th>
<th>strong</th>
<th>weak II</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-ais</td>
<td>-ōs</td>
</tr>
<tr>
<td>3</td>
<td>-ai</td>
<td>*-ai &gt; -ō</td>
</tr>
</tbody>
</table>

If first and third singular were identical (*-ai), then the renewal would probably carry over to the first person as well. Most plausibly, such a renewal could occur before the renewal of the strong verb first singular active optative (Subsection 3.4.2) yet after the shortening of final *-ō.
Unfortunately, these speculations have no external support—a problem shared as well by other approaches to the optative of second weak verbs. Indeed, plausible explanations of these forms exist in abundance—if only we could define the question more closely. At present, I see no way to do so, and I therefore content myself with a sketch of the difficulties and a few random notes. I would observe, however, that the optative of second weak verbs provides slippery ground indeed for the trimoric hypothesis as presented by Cowgill.

Second weak imperative forms are also difficult. Seemingly, second singular -o cannot be regular. Possibly it follows the strong verb pattern: second singular imperative equals bare stem; second weak stem equals -ô. Other forms of the second weak verbs (passive, preterit) are also built upon this stem formant, adding the endings reflected as well in the first weak.

Summing up: we are perhaps best off to believe that second weak present forms are athematic, that optatives underwent a change similar to that described by Mahlow, and that certain restructurings occurred in the several dialects. The nature and extent of these restructurings must depend primarily on the chronology of Mahlow’s law, while the plausibility of that rule must depend, in large part, on the nature and extent of the reformations which it requires. At present, or at least in Gothic, there seems to be no way to locate a fixed point on this circle.
SUBSECTION 3.5.3
The fourth weak class

Among the studies of fourth weak verb morphology, the most recent known to me is G. Lee Fullerton's "The source of the Gothic fourth weak conjugation," Language 47 (1971), pp. 375-380 (with a good presentation of supporting literature). Like others before him, Fullerton associates the Germanic class with nasal infix presents to Indo-European roots ending in a laryngeal. He observes, however, that in various Indo-European languages such present formations show both thematic and athematic inflection. It is the thematic inflection which Fullerton sees reflected in Gothic. On page 377 he writes: "The thematic conjugation of some infixed stems may be ascribable to Indo-European. Others of these stems may have been thematicized separately in each dialect by a single process inherited from Indo-European, namely the addition of thematic vowel and personal endings to the zero grade of any verbal stem. For *-nVH-verbs, an IE stem (or its reflex) of the form
\[ CR-n-\emptyset H- (C = \text{nonvowel}, \ R = \text{resonant} \ [\emptyset \text{indicating zero grade} \ -\text{AWJ}]) \]
plus thematic vowel \(-V-\) and personal ending \(-CI\) gives \[ CR-n-\emptyset H-V-CI. \]
With loss of \(H\) before vowel, this sequence becomes \[ CR-n\emptyset\emptyset-V-CI. \]
If this development is posited for Germanic, the Gothic 4th-class weak present is phonologically regular in every respect." [See Section 3.4 of the present study for discussion of endings]

Fullerton's explanation is simple, straightforward, and compelling.
I would note as well that it answers the objection of Fredrik Otto Lindemann—"Bermerkungen zu den germanischen Nasalverben," NTS 22 (1968), p. 83, anm. 1—to older theories which postulate the retention of syllabic H as *a word medially in Germanic.

In a note (p. 375), Fullerton states that "No attempt will be made in this paper to explain how IE -nVH- presents, originally active and transitive, took on inchoative, intransitive meaning in Germanic." On this semantic shift, however, see Jerzy Kurylowicz, The inflectional categories of Indo-European (Heidelberg, 1964), pp. 106-109. There seems no reason to doubt Fullerton's proposed developments.
CHAPTER FOUR
Overview and implications

The Germanic final syllables reconstructable from Gothic as presented in this study contain both monophthongs and diphthongs. In each category, however, there is but a single quantity distinction: short versus long. Indeed, it is one of the more significant findings of this study that the major inflectional systems of Gothic can be derived from Germanic or Indo-European forms without postulating trimoric monophthongs and the two-way length contrast short versus long versus overlong. Since there has apparently never been clear North Germanic evidence for trimoric monophthongs, the discovery that Gothic, too, does not require them limits the trimoric hypothesis to West Germanic. At several crucial points in the present study, however, West Germanic forms have been examined and accounted for under the same theory used to explain the Gothic forms. This suggests that a detailed re-investigation of West Germanic will find it possible to reject the trimoric hypothesis altogether.

In place of a bimoric-trimoric distinction in long vowels, the present study has postulated a qualitative distinction between *\( \ddot{a} \) and *\( \ddot{o} \) (2.2). It is true that this qualitative distinction can be mechanically converted to one based on quantity by the equations *\( \ddot{a} = \text{bimoric } \ddot{o} \), *\( \ddot{o} = \text{trimoric } \ddot{\ddot{o}} \). Two facts, however, suggest that such conversion is ill-advised. First, the distribution of the two
qualities *ā and *ō lines up remarkably well with the distribution of *ā and *ō in Indo-European forms inherited by Germanic. Secondly, the corresponding trimoric vowels required by the quantitative theory are difficult to motivate in almost every instance. In addition, it has been shown several times in Chapters Two and Three that, when Indo-European forms have been modified or renewed in Germanic or the dialects, these modifications can often be simply described as reformations based on qualitative differences or similarities between forms (see, for example, 2.8, 3.1.2 (a) nominative plural). It is not clear that such reformations can be described with equal plausibility in quantitative terms.

In the short vowel system of final syllables, Germanic seems to have distinguished four qualities: *i, *e, *a, and *u. Germanic *a corresponds to Indo-European *a, *o, or *H, and neither Gothic nor, seemingly, any other Germanic dialect gives evidence for a continuing distinction between *a and *o beyond the time when the labiovelar allophones were established (2.1). The lack of evidence for distinguishing short *ā and *ō in late Germanic, coupled with the evidence for a continuing distinction between unstressed long *ā and *ō into pre-historic dialectal times, suggests that the two mergers, *o → *a and *ā → *ō, may not have been synchronous. Rather, in final syllables at least, merger may have affected the short vowels well before it reached the long vowels.

The non-round short vowels, Germanic *i, *e, and *a, are subject to identical rules in pre-Gothic final syllables. When unstressed, they are lost in absolute finality or before a single final obstruent. Gothic forms indicate either that syncope preceded
apocope or that the two were synchronous. There is no Gothic evidence that nasalized short vowels were affected later than oral short vowels, nor is there clear reason to propose, for example, that *a was affected earlier than *i (though this remains a possibility).

In contrast to *i (*a, *e), the round short vowel Germanic *u is never subject to syncope or apocope in Gothic (2.5). The difference in treatment between short *i and short *u in final syllables is part of a larger Gothic pattern reflected as well in the preservation, in absolute finality, of Germanic *-au (3.4.3) and secondary *-uw (2.9.3 - .4) as opposed to the monophthongization of Germanic *-ai (2.6) and secondary *-ij (2.9.4). That is, Gothic maintains a clear distinction between round and non-round in the short vowels and short diphthongs.

In the long diphthongs, one thinks as well of the difference between *ai — > *ai (2.8) and *oi — > *o (2.7) in absolute finality, just as, in the long vowels, one finds that nasalized *-an shortens in absolute finality while nasalized *-on preserves its length (2.3, 2.4). Here, too, syllables which differ most prominently in rounding receive different treatment in pre-Gothic. There is, of course, no single rule at work in all these forms, nor any one principle which would relate, for example, the preservation of *-au to the reduction of *-oi. The point is that u can be distinguished from i, au from ai, oi from ai, uw from ij, o^n from a^n, and so on. If the members of each set develop in dissimilar ways, that difference is to be correlated, for descriptive purposes, with the difference obtaining within each set. That the distinction in each
of the above pairs has something to do with rounding is historical accident. That the differences in development have not often been noted before is due, in large part, to the groundless assumption of parallelism and / or the failure to recognize meaningful qualitative distinctions in Germanic final syllables.

As regards the semivowels, it has been argued in Section 2.9 that /j/ and /w/ were treated identically in Germanic. This study thus provides the first Germanic evidence for the application of Sievers' Law to Indo-European /w/ as well as /j/. The Gothic development of the Germanic rule has been correlated with the qualitative difference between ij and uw --the former subject to monophthongization and shortening while the latter remains.

For the resonants, it has been argued that we go too far in assuming the merger of *m and *n in final position. As shown in Section 2.10, we have no evidence to support this merger. Of course, since both *m and *n are lost in absolute finality, we have no reason to separate these sounds either (3.1.5 (a)). In cases of this sort, however, it seems superfluous to postulate an additional rule (merger) prior to loss. For the time being, we are best advised to assume a continuing distinction from Indo-European to Germanic up to the time of loss. Similarly, we ought perhaps to assume a continuing lack of distinction in final sibilants rather than postulate the creation of contrast in environments where evidence for this distinction is lacking or unclear (2.12).

It goes without saying, perhaps, that morphological developments must figure prominently in our phonological descriptions. Basing the laws of finals on quality rather than quantity may open up new
approaches to old morphological problems, as in the Gothic genitive plural (2.3) or the Germanic dative singular (2.7, 2.8). On the other hand, it is certainly true that new morphological approaches may clarify or remove obstacles to proposed phonological developments, as in the pronominal masculine accusative singular (3.2.2), the Gothic directional adverbs (2.4, 3.3), the Gothic optative and imperative endings in -au (3.4.2 -.3), and the Gothic first weak imperative singular (3.5.1). What these twin findings seem to indicate is that our standard handbooks of Germanic historical linguistics are in need of revision from the ground up. Most of them date, conceptually at least, from the turn of the century and have received only piecemeal revision during the intervening years. With the passage of time, it has become apparent that not all the revisions fit as seamlessly as one might wish. It is also clear that we have been insufficiently alert to the filtering effect of handbook summaries. The qualitative hypothesis of final long vowels, the voicing of final *-s, the explanations of the Gothic genitive plural and the Germanic masculine dative singular offered above are all old ideas which our handbooks fail to mention. This is not to say that our handbooks can be ignored, or that one may apply an ancient theory to some subpart of the inflectional system without regard for its implications elsewhere. Rather it falls upon us now to review and reassess all previous work on an equal basis and to check the results of our study against reasonably complete linguistic systems viewed both synchronically and diachronically. The present study has begun (but not completed) this task for Gothic. I hope it has gone far enough, however, that we
may profitably begin to restudy the other dialects as well in preparation for a new description of the Germanic laws of final syllables.
APPENDIX

A partial rule ordering

Chapters Two and Three have revised a number of old rules (and proposed a number of new rules) linking Germanic and Gothic final syllables. Perhaps the more interesting of these rules pertain to Germanic diphthongs or long vowels. Fortunately, the rules affecting diphthongs or long vowels interact with one another and with other rules in a sufficient number of forms that a partial ordering can be attempted. The ordering proposed below must be regarded as very tentative, however, since, in any sum of controversial elements, the individual uncertainties are not added but multiplied.

Section 2.2.4 suggested (from West Saxon forms) that a change of unstressed non-nasal *a to *o in absolute finality may have preceded the change of unstressed *a to *o in other positions. Such a change (in e.g. the nominative singular of ă-stem nouns) would enable us to explain the analogical development of *-oz in the ă-stem nominative plural (beside *-az in the accusative plural). The same rule was used to explain the analogical development of an ă-stem nominal dative-locative singular in *-oi (2.8) modeled on the earlier similarity of instrumental *a, dative-locative *aı. North Germanic forms support *-öi in nouns, *-aı in pronouns.

Section 2.7 proposed a change of unstressed *-oi to *-ö in absolute finality. Since this rule affects the analogical ă-stem
dative-locative *-ōi in North-West Germanic (see 2.8), it would seem that the change of unstressed *-ōi to *-ō must follow the change of unstressed non-nasal *-ā to *-ō in absolute finality. In Gothic, a rule which shortens unstressed non-nasal *-ō in absolute finality may have followed the change of unstressed *-ōi to *-ō. This rule enables us to explain the Gothic masculine pronominal dative singular bamma/bammuh (2.7, 2.8). As argued in 2.7, the shortening of unstressed non-nasal *-ō in Gothic absolute finality preceded the period of encliticization with its rule V \rightarrow \emptyset / ___ + V (2.4). Thus the loss of final -a < *-ō < *-ōi < *-ōi in encliticized bammuh < bamma + uh.

A monophthongization of unstressed Germanic *-ai to *-e (2.6) must also have preceded the period of encliticization (2.4, 2.6, 2.7). As shown by present optative second singular Gothic -ais, *-ai monophthongized to *-e only in absolute finality (3.4.2). Thus -e in hwammeh (< Germanic *hwammai) must have arisen before the encliticization of -uh.

If the analysis of Gothic first singular present optative -au is correct as presented in 3.4.2, it is possible that the monophthongization of final *-ai followed the loss of *-m in absolute finality. Thus *-aim > *ai > *e > *a, renewed as -au.

The monophthongization of final unstressed *-ai to *-e cannot have followed the shortening of unstressed *-ai in absolute finality. Thus the feminine dative singular, Germanic *-ai, appears as -ai, not *-a, in Gothic. See 2.8.

That the period of encliticization preceded the shortening of unstressed *-e to *-e in absolute finality is argued by the pair hwammeh/hwamma (2.4). Clearly the monophthongization of *-ai to *-e...
also preceded the shortening of *-e to *-e.

Accusative hwanoh beside hwana argues that the shortening of unstressed nasalized *-a to -a also followed the period of enclitization (2.4), if these forms indeed reflect earlier *hwanam as argued in 3.2.2. It is possible that the shortening of nasalized *-a to -a preceded the shift of unstressed (nasal or nonnasal) *-a to o (2.4). This ordering would seem to be entailed by the claim that unstressed nasalized *o does not shorten in absolute finality but remains as Gothic e (see 2.3, 2.4).

One might believe that the change of unstressed nasalized *o to e (2.3) followed the shortening of *-e to *-e in absolute finality (2.4). Thus genitive plural -e (< *-om) remains.

Clearly the lowering of secondary short *-e and *-o to -a followed the shortening of *-e to *-e. Thus hwamma beside hwammeh (2.4).

If the explanation of directional -dre (< *dret) is correct as presented in 3.3, it would appear that the loss of final *-t after unstressed vowels must have followed the shortening of unstressed *-e to *-e. This claim is harmonious with the claim that *-t was lost after the monophthongization of unstressed *-ai in absolute finality, since that monophthongization preceded the shortening of *-e. Thus Gothic third singular present optative -ai (< *ait) as argued in 3.4.2. As noted in 2.2.3 and 3.4.6, the loss of final *-t preceded the Gothic shortening of final *-i.

The tentative ordering just described is presented below in Figure One. Rules are assigned capital letters for reference in the following discussion.
Figure One: preliminary rule ordering

All vowels and diphthongs in inputs are unstressed.
The ordering presented in Figure One is deduced strictly from the interaction of rules applied in the diachronic derivation of Gothic forms. As an examination of the figure will reveal, rule interaction in morphemes does not enable us to order all of the rules with respect to one another. Thus Gothic forms themselves do not enable us to state the ordering relationship of, for example, rules E and B. We might, however, try to surpass the rather conservative ordering relationships of Figure One by examining not the form of Gothic morphemes but the form of the rules themselves. Considerations of rule simplicity might provide a more detailed picture of ordering relationships than we have gained above. One must realize beforehand, however, that a simplicity-based revision of Figure One represents a further abstraction from the data and a corresponding increase in speculation. Those who would either accept or revise the following ordering statements should bear this warning firmly in mind and should return to the data before venturing further afield.

Looking at the rules presented in Figure One, we are struck immediately by the restriction of rules A and C to non-nasal vowels in absolute finality. When we consider that the vowels affected by A and C were vowels which never preceded a final nasal, we are led to speculate that the restriction placed on A and C may indicate that these rules applied to vowels in absolute finality prior to the loss of final nasals. That is, we might remove the specification [-nasal] from rules A and C if we could generalize rule E (loss of final *-m) to both *m and *n and if we could order this revised rule E after rule C. At the same time, we might be able to remove the specification [+ nasal] from rule L, since L applies only to those long *a's which
escape rules A and C (i.e. those which were protected by final nasal consonants).

With these revisions, we have removed the specification for nasality from all rules but K, and we might seek now to re-examine K as well. Rule K changes *ō (<*ōm) to ē, as in the genitive plural (2.3, 2.4). If we order rule M (change of *ā to ō) after rule K, then we can limit K to Germanic *ō. Since rules A, B, and C are now ordered before rule E, rule K would seem to apply only to those Germanic *ō's followed by final nasal consonants. We must note, however, that rule K is not supposed to apply to the ablative *ō of directional -brot (<*brōt). This suggests that a revised rule K with no specification for nasality must precede rule I (loss of final *-t). Unfortunately, however, this ordering will not work. Rule K cannot be limited to vowels in absolute finality since it must be able to affect such encliticized forms as genitive plural bizeēi (<*bizo + ei). Yet, unless the revised rule K is limited to vowels in absolute finality, it must apply to ablative *ō in *brot.

Here we reach a seeming impasse, yet the way is not totally blocked. Thus we note that, if the ablative had been Germanic *-āt rather than *-ōt, our revised rule K could not affect it improperly. Rather, *-ā(t) would become -ō by rule M, which we have ordered after rule K. While Hans Krahe is perhaps correct in denying the relationship of a Germanic ablative to Latin forms in -ād ("Zu den Adverbia vom Typus got. jainbro und lat. extrā," IF 64 (1958/1959), pp. 66-68), an *-ād ablative does seem to be reflected in Baltic-Slavic (see Oswald Szemerényi, Einführung in die vergleichende Sprachwissenschaft [Darmstadt, 1970], p. 168). In his 1977 Harvard Ph. D. dissertation,
Ablative and instrumental in Hittite, H. Craig Melchert has offered the following remarks on the forms in question (p. 468): "One may derive both Baltic *-ad and the *-od found elsewhere from *-oh₂ed, assuming different outcomes of the contraction of -oa-. Alternatively, one may assume an *-eh₂ed, beside *-oh₂ed, the former giving *-ad, the latter *-od. The form *-eh₂ed would also account for the palatalization in Skt. paścat 'from behind'." Thus it is perhaps not impossible that the inherited Germanic ablative was indeed *-at from *-ad as in Baltic.

At present, there seems to be no empirical reason for claiming that the Germanic ablative must have bee *-ot rather than *-at. Since *-at enables us to simplify a diachronic rule statement in Gothic, we may tentatively prefer to attribute *-at (rather than *-ot) to Germanic. The precarious basis of this attribution cannot, however, be overemphasized.

In addition to the ablative, there is one other form which appears to counter our proposed simplification of rule K. This form is the o-stem masculine nominative plural, Germanic *-oz. Here again, the revised rule K would produce an incorrect form (**-ez); here too, the difficulty disappears if we postulate that the Germanic ending contained not *-o- but *-a-, i.e. *-az. In Section 2.2.5 it was pointed out that West Germanic forms also require an o-stem nominative plural *-az under the qualitative theory. There it was suggested that a reformation of inherited *-oz to *-az may have been an 'extension of timbre' following upon the shift of short *o to a in, for example, nominative singular *-os. The unexpected, indeed startling coincidence of Gothic and West Germanic implications suggest that we
might continue our speculations by, in fact, attributing \( *-\ddot{a}z \) to Germanic and revising rule K as proposed.

The revised rules and rule orderings described above are presented in Figure Two. For later reference, rules in Figure Two are assigned arabic numerals when an ordering relationship is implied. When two rules are not mutually ordered, they are assigned a common arabic numeral but are distinguished by capital letters. Note that rule 7 of Figure Two combines rules H and (revised) L of Figure One.

Sample derivations are tabulated in Figure Three, where the rules of Figure Two are repeated for reference.
Figure Two: speculative rule ordering

All vowels and diphthongs in inputs are unstressed.

(It is assumed that the Germanic ablative was *-at and that the Germanic masculine o-stem nominative plural was *-az.)
RULES (all vowels and diphthongs in inputs are unstressed):

1. $\hat{a} \rightarrow \hat{o} / \_

2. $\hat{o}i \rightarrow \hat{o} / \_

3. $\hat{o} \rightarrow \hat{e} / \_

4. m,n \rightarrow \emptyset / \_

5. ai \rightarrow \hat{e} / \_

6A. $\ddot{ai} \rightarrow ai / \_

(6B. period of encliticization)

7. $\tilde{e},\ddot{a} \rightarrow \ddot{e},\tilde{a} / \_

8A. $\ddot{e},\tilde{a} \rightarrow \ddot{a}  

8B. $\hat{e} \rightarrow \hat{e}  

8C. t \rightarrow \emptyset / \_  

9A. $\ddot{a} \rightarrow \hat{e}  

9B. $\ddot{i} \rightarrow \ddot{a} / \_

EXAMPlES of forms without enclitics:

Germanic -$\ddot{o}$ -$\tilde{a}$ -$\ddot{oi}$ -$\ddot{am}$ -$\ddot{aim}$ -$\tilde{ai}$ -$\ddot{om}$ -$\ddot{et}$ -$\ddot{at}$ -$\tilde{it}$ -$\tilde{ait}$ -$\ddot{ai}$

1  -$\ddot{o}$

2  -$\tilde{o}$

3  -$\ddot{o}$ -$\ddot{o}$

4  -$\ddot{a}$ -$\tilde{ai}$ -$\ddot{o}$

5  -$\ddot{e}$ -$\ddot{e}$

6A  -$\ddot{ai}$

7  -$\ddot{e}$ -$\ddot{e}$

8A  -$\ddot{e}$ -$\ddot{e}$ -$\ddot{e}$ -$\ddot{e}$

8B  -$\ddot{e}$

8C  -$\ddot{e}$ -$\ddot{a}$ -$\ddot{i}$ -$\ddot{ai}$

9A  -$\ddot{o}$

9B  -$\ddot{ai}$

Gothic -$\ddot{x}$ -$\ddot{a}$ -$\ddot{a}$ -$\ddot{a}$ -$\ddot{x}$ -$\ddot{x}$ -$\ddot{e}$ -$\ddot{e}$ -$\ddot{o}$ -$\ddot{a}$ -$\ddot{ai}$ -$\ddot{ai}$

Figure Three: sample derivations

(Note assumption that the Germanic ablative was *-$\ddot{at}$.)
The derivations in Figure Three represent the following forms:

a) Germanic *-ō, Gothic -ō. o-stem instrumental singular; strong verb first singular present active indicative.

b) Germanic *-ā, Gothic -ā. o-stem neuter nominative plural; ā-stem nominative singular; n-stem neuter nominative plural, Germanic *-anā, Gothic -ona; anaphoric pronoun neuter nominative plural, Germanic *ijà, Gothic ija.

c) Germanic *-ōi, Gothic -ō. o-stem dative singular.

d) Germanic *-ām, Gothic -ā. ā-stem accusative singular; demonstrative, interrogative, anaphoric pronominal masculine accusative singular, Germanic *-nām, Gothic -na; anaphoric pronoun feminine accusative singular, Germanic *i∫ām, Gothic ija.

e) Germanic *-aim, Gothic -ā. strong verb first singular present active optative, *-a renewed as -au in Gothic.

f) Germanic *-ai, Gothic -ā. o-stem locative singular; passive indicative, Germanic *-aðai, *-azai, *-andai, Gothic -ada, -aza, -anda.

g) Germanic *-om, Gothic -ē. o-stem genitive plural; consonant stem genitive plural; r-stem genitive plural, Germanic *-rōm, Gothic -rē.

h) Germanic *-et, Gothic -ē. directional adverb, Germanic *-ðrēt, Gothic -dē.

i) Germanic *-ēt, Gothic -ē. directional adverb, Germanic *-ðrēt (??), Gothic -broker; similarly o-stem masculine nominative plural, Germanic *-āz (??), Gothic -ōs; ā-stem genitive singular, nominative-accusative plural, Germanic *-āz, Gothic -ōs; ā-stem dative plural, Germanic *-amiz, Gothic -ōm; anaphoric pronoun feminine
nominative-accusative plural, Germanic *ijāz, Gothic ijōs,
n-stem neuter nominative-accusative plural, Germanic *ana,
Gothic -ōna.
j) Germanic *-īt, Gothic -ī. strong verb third singular preterit
optative; similarly long ja-stem nominative singular, Germanic
*-ī, Gothic -ī.
k) Germanic *-ait, Gothic -ai. strong verb third singular present
active optative.
l) Germanic *-āi, Gothic -ai. ā-stem dative-locative singular.

Examples of forms with attached enclitics are tabulated in
Figure Four, which repeats, for reference, the rules of Figure Two.
Note that 6B, the period of encliticization, is assumed to have in­
volved the following rules: 1) a change of $ to + in cliticized
forms, 2) a loss, $ → $ / ____ + V, 3) a loss, $ → $ / $ + ___
( and / $ + ___ ). In these rules, the cover symbol $ is used for both diphthongs and long vowels.
RULES (all vowels and diphthongs in inputs are unstressed):

1. \( a \rightarrow o / \ldots \) 6A. \( ai \rightarrow ai / \ldots \)

2. \( oi \rightarrow o / \ldots \) 6B1. \( \# \rightarrow + / encliticization \)

3. \( o \rightarrow e / \ldots \) 6B2. \( V \rightarrow \emptyset / \ldots + V \)

4. \( m,n \rightarrow \emptyset / \ldots \) 6B3. \( V \rightarrow \emptyset / [V] + \ldots -st. \)

5. \( ai \rightarrow \tilde{e} / \ldots \)

6. \( e,\tilde{a} \rightarrow \breve{a},\breve{a} / \ldots \)

8A. \( \breve{e},\breve{o} \rightarrow \breve{a} \) 8B. \( \breve{o} \rightarrow \tilde{e} \) 8c. \( t \rightarrow \emptyset / [V] -st. \)

9A. \( \tilde{a} \rightarrow \tilde{o} \) 9B. \( \breve{i} \rightarrow i / \ldots \)

EXAMPLES of forms with attached enclitics (inapplicable rules are omitted from the table):

<table>
<thead>
<tr>
<th>Germanic</th>
<th>$\tilde{a}#V$</th>
<th>$\breve{o}#V$</th>
<th>$\tilde{a}#V$</th>
<th>$\tilde{a}#V$</th>
<th>$\tilde{a}#V$</th>
<th>$\tilde{a}#V$</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>$\tilde{o}#V$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>$\breve{o}#V$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>$\breve{e}#V$</td>
<td>$\tilde{e}#V$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>$\tilde{a}#V$</td>
<td>$\tilde{e}#V$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>$\breve{e}#V$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\tilde{a}#V$</td>
<td></td>
</tr>
<tr>
<td>6B1</td>
<td>$\tilde{e}+V$</td>
<td>$\breve{e}+V$</td>
<td>$\tilde{a}+V$</td>
<td>$\tilde{e}+V$</td>
<td>$\tilde{o}+V$</td>
<td>$\tilde{a}+V$</td>
</tr>
<tr>
<td>6B2</td>
<td>$\breve{o}+V$</td>
<td>$\breve{o}+V$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6B3</td>
<td>$\tilde{a}+\emptyset$</td>
<td>$\tilde{e}+\emptyset$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8B</td>
<td></td>
<td></td>
<td></td>
<td>$\breve{e}+V$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9A</td>
<td></td>
<td>$\breve{o}+\emptyset$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gothic

| $\breve{e}+V$ | $\breve{o}+V$ | $\breve{o}+\emptyset$ | $\breve{e}+\emptyset$ | $\breve{e}+V$ | $\tilde{a}+V$ |

Figure Four: sample derivations
The derivations in Figure Four represent the following Gothic forms:

a) Germanic *-a\(\ddot{\text{a}}\)/V: \(\ddot{\text{a}}\)-stem nominative singular *kara, with 'enclitic' verb in Gothic karist.

b) Germanic *-oi\(\ddot{\text{a}}\)/V: masculine demonstrative dative singular *bamnoi, with enclitic -uh in Gothic bammuh.

c) Germanic *-am\(\ddot{\text{a}}\)/V: masculine interrogative accusative singular *hwanam, with enclitic -uh in Gothic hwanoh.

d) Germanic *-ai\(\ddot{\text{a}}\)/V: masculine interrogative dative (-locative) singular *hwammai, with enclitic -uh in Gothic hwammeh.

e) Germanic *-om\(\ddot{\text{a}}\)/V: masculine demonstrative genitive plural *bizo\(\ddot{\text{a}}\)om, with enclitic relative [-I] in Gothic bizaiei.

f) Germanic *-ai\(\ddot{\text{a}}\)/V: feminine demonstrative *biza\(\ddot{\text{a}}\)i, with enclitic relative [-I] in Gothic bizaiei.

It was noted above that the rules and rule orderings presented in Figure Two represent a speculative abstraction from the rule orderings of Figure One. Here it must be repeated as well that the rule orderings of Figure One are themselves a compilation of many individual conclusions (Chapters Two and Three), each with its own level of uncertainty. For these reasons, Figure Two must be regarded as only one of perhaps several possible summations of Chapters Two and Three. To my mind, acceptance, rejection, or even revision of Figure Two is best deferred until similar, dialect-specific orderings have been prepared for each of the North-West Germanic dialects. This task is especially important in view of Figure Two's requirements that the Germanic ablative be *-\(\ddot{\text{a}}\)t and that the Germanic o-stem masculine
nominative plural be *-az. Additional evidence for or against these forms can only come from a detailed study of North-West Germanic developments.


Bezzenberger, A. "Die Vertretung der abgeleiteten altindischen Femininstämme auf *i im Germanischen." Beiträge zur Kunde der indogermanischen Sprachen, 8 (1884), 35-37.

"Got. bairau, Konjunktiv von indogerm. bhěrō(u)." Beiträge zur Kunde der indogermanischen Sprachen, 26 (1901), 152-154.

Boer, P. M. "De *ī*-Syncope in het Gotisch." Neophilologus, 30 (1946), 43-46.

__________. "Gotisch rz." Neophilologus, 6 (1920/1921), 228-235.


__________. "Urgerm. a in unbetonter Silbe." Indogermanische Forschungen, 14 (1903), 363-367.

"Der gotische Genitivus Pluralis auf -e."

Indogermanische Forschungen, 33 (1913/1914), 272-284.


___________. "Grammatische Miscellen." *Beiträge zur Geschichte der deutschen Sprache und Literatur*, 18 (1894), 274-300, 519-530.


___________. "Grammatisches und Etymologisches."

*Beiträge zur Geschichte der deutschen Sprache und Literatur*, 23 (1898), 288-357.


_________________. "Gotisch w." Zeitschrift für deutsches Altertum und deutsche Literatur, 36 (1892), 266-278.


"Nonsyllabic allophones of Gothic /w/." Language, 36 (1960), 508-515.

"The case for a long u-phoneme in Wulfilian Gothic." Orbis, 14 (1965), 393-405.


"Kleine gotische Beiträge." Beiträge zur Geschichte der deutschen Sprache und Literatur, 21 (1896), 429-436.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Kögel, Rudolf. "Die schwachen Verba zweiter und dritter Klasse."

Beiträge zur Geschichte der deutschen Sprache und Literatur, 9 (1884), 504-523.


Berlin: de Gruyter.


"Die Flexion der germanischen schwachen Feminin-
stämme." Studien zur Sprachwissenschaft und Kulturkunde, Ge-
Innsbrucker Beiträge zur Kulturwissenschaft, Bd. 14 (1968),
85-91.

Indogermanische Grammatik. Bd. II: Akzent-

"Les thèmes en -i-, -u- du germanique." Mélanges
de linguistique, de philologie, et de méthodologie de
l'enseignement des langues anciennes offerts à M. René Fohalle.

"Notes de conjugaison I." Biuletyn Polskiego

Labov, William. "The social motivation of a sound change."
Word, 19 (1963), 273-309.

"On the mechanism of linguistic change."
A reader in historical and comparative linguistics. Ed. Allan
267-288.

Lane, George S. "The genesis of the stem vowel u (o) in the
Germanic r-stems." Journal of English and Germanic Philology,
50 (1951), 522-528.

"Germanic weak verbs in -on: an archaism."
Language, 32 (1956), 420-422.

"Bimoric and trimoric vowels and diphthongs:
laws of Germanic finals again." Journal of English and Germanic


___________ "Der Wechsel von u und au in der gotischen u-Declination." Beiträge zur Geschichte der deutschen Sprache und Literatur, 46 (1922), 51-84.


Marchand, James W. "Vowel length in Gothic." *General Linguistics*, 1, No. 3 (1955), 79-88.


___________. "Dialect characteristics in our Gothic mss." *Orbis*, 5 (1956), 141-151.


Meillet, A. "Notes sur quelques forms indo-européennes."


Melchert, H. Craig. Ablative and instrumental in Hittite.


Mölner, Hermann. "Zur Declination; germanisch AEO in den Endungen des Nomens und die Entstehung des o(aⁿ)." Beiträge zur Geschichte der deutschen Sprache und Literatur, 7 (1880), 482-547.


___________. "Die Vocale der Flexions- und Ableitungs-Silben in den aeltesten germanischen Dialecten." Beiträge zur Geschichte der deutschen Sprache und Literatur, 4 (1877), 315-475.

___________. "Zur Geschichte des germanischen Vocalismus." Beiträge zur Geschichte der deutschen Sprache und Literatur, 6 (1879), 1-261.


___________. "Early Germanic names and vowel shifts." Names, 14 (1966), 65-68.


"Notes on the reflexes of IE /ms/ in Germanic."
Revue belge de philologie et d'histoire, 45 (1967), 800-826.

"On the origin of Germanic class III of weak verbs."


Reichardt, Konstantin. "The inscription on Helment B of Negau."
Language, 29 (1953), 306-316.


Ross, Alan S. C. "Contribution to the study of u-flexion (concluded)."
Transactions of the Philological Society 1954, 85-128.


Schmidt, Johannes. "Die vertretener von urspr. ū, ū in den germanischen Sprachen." Zeitschrift für vergleichende
Sprachforschung, 26 (1886), 1-19.


Sievers, E. "Zur Accent- und Lautlehre der germanischen Sprachen."

Beiträge zur Geschichte der deutschen Sprache und Literatur, 5 (1878), 63-163.


Stang, Chr. S. "A quoi correspond en germanique le th sanscrit?"

Norsk Tidsskrift for Sprogvidenskap, 15 (1949), 335-342.


Urgermanische Grammatik. 1895; 4th unveränderte ed., 1974. Germanische Bibliothek, erste Reihe, Sprach-

M. Gothic bis: biz-ei, -uh; hwis: hwiz-uh; anbaris: anbariz-uh, etc." Modern Language Notes, 55 (1940), 599-601.


M. "Notes on Gothic forms." Language, 30 (1954), 448-452.

M. "Postconsonantal *w in the two Gothic types skadus 'shadow' and triggws 'faithful!'" Germanic Review, 32 (1957), 314-318.


Tamm, F. "Auslautendes t im Germanischen." Beiträge zur Geschichte der deutschen Sprache und Literatur, 6 (1879), 400-407.


van Helten, W. "Grammatisches [I-XII]." Beiträge zur Geschichte der deutschen Sprache und Literatur, 15 (1891), 455-488.

___________. "Grammatisches [XVIII-XXIX]." Beiträge zur Geschichte der deutschen Sprache und Literatur, 17 (1893), 272-302, 550-573.


___________. "Grammatisches [XXX-XLI]." Beiträge zur Geschichte der deutschen Sprache und Literatur, 20 (1895), 506-525.

___________. "Grammatisches [XLII-LI]." Beiträge zur Geschichte der deutschen Sprache und Literatur, 21 (1896), 437-498.

___________. "Grammatisches [LII-LXIII]." Beiträge zur Geschichte der deutschen Sprache und Literatur, 28 (1903), 497-569.

___________. "Zur gotischen Grammatik." Indogermanische Forschungen, 14 (1903), 60-89.
van Wijk, N. "Germanisches." Indogermanische Forschungen, 22 (1907/1908), 250-266.


