The Germanic Strong Verbs



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The Germanic Strong Verbs

Foundations and Development of a New System

by

Robert Mailhammer

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Preface

This work is the revised version of my Ph. D. thesis submitted to the *Fakultät für Sprach- und Literaturwissenschaften* of the *Ludwig-Maximilians-Universität München* in October 2004 under the title "A Morphological and Etymological Study of the Germanic Strong Verbs".

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Abbreviations

+	reconstructed form	Lith.	Lithuanian
++	reconstructed form based	MHG	Middle High German
	on a reconstruction	Nas.	Nasal
*	ungrammatical form	O	obstruent
<	develops from	OCS	Old Church Slavonic
>	develops into	OFr.	Old Frisian
Ar.	Arabic	OHG	Old High German
Av.	Avestan	OI	Old Indic
OAv.	Old Avestan	OIr.	Old Irish
aor.	aorist	ON	Old Norse
Arm.	Armenian	ONor.	Old Norwegian
Balt.	Baltic	OS	Old Saxon
C	Consonant	OSw.	Old Swedish
Croat.	Croatian	OWN	Old West Nordic
CS	Church Slavonic	part.	participle
E	Modern English	pl.	plural
FG	full grade	pres.	present
G	German	pret.	preterit
Gk.	Ancient Greek	Pun.	Punic
Gmc.	Germanic	R	Sonorant
Goth.	Gothic	sg.	singular
Hebr.	Hebrew	Skrt.	Sanskrit
Hitt.	Hittite	Slav.	Slavonic
Ice.	Icelandic	subj.	subjunctive
imp.	imperative.	Toch.	Tocharian
ind.	indicative	Umbr.	Umbrian
inf.	infinitive	V	Vowel
IE	Indo-European	Ved.	Vedic
L	Latin	VL	Vulgar Latin
Latv.	Latvian	Wel.	Welsh
LG	lengthened grade	ZG	zero grade
Liq.	Liquid		-

Chapter one Introduction and preliminaries

1. Subject: The strong verbs of Germanic

The Germanic languages have always played a prominent part in linguistics: Several grammatical theories belonging to the foundations of modern linguistics are based on the English language. It was Sir William Jones's comparison of Gothic to the classical languages and Sanskrit that started the fruitful tradition of historical linguistics in modern times. The early work on the history of the Germanic languages and their relation to other Indo-European languages by Jacob Grimm, Franz Bopp and others, is of fundamental significance for contemporary historical linguistics. In particular, understanding language change would be virtually impossible without the insights and the data gained from these early diachronic investigations.

This study investigates Germanic, the common ancestor of all Germanic languages, focusing on the morphology and etymology of the so-called strong verbs from a systemic and quantitative point of view. The first goal is to examine the Germanic strong verbs from a morphological point of view, centring on the typological position of ablaut in comparison to the parent language (Indo-European), the high degree of uniformity and organization, and finally the fusional processes involved in their genesis. The second aim of this study is a quantification of the etymological situation of

^{1.} Although the terms *Proto-Germanic* or *Common Germanic* – translations from German *Urgermanisch* and *Gemeingermanisch* – are commonly used to refer to the Germanic parent language, in this study I will employ the term *Germanic* for reasons of simplicity and also because, in my opinion, this is the most adequate name for it. Since Germanic – as a reconstructed language – usually is seen as an idealized, homogenous entity without synchronic dialectal variation, *Common Germanic* is an unnecessary complication, whereas *Proto-Germanic* is somewhat misleading because it might be interpreted as referring to an earlier chronological stage whereas it really represents the same idealized concept as *Germanic*. The same applies to the terms *Indo-European*, *Proto-Indo-European* and the like, of which the term *Indo-European* will be used here.

the strong verbs in order to determine the proportion of hitherto nonetymologized words for this central part of the Germanic lexicon. Furthermore, the relative significance of this quantitative analysis will be evaluated through comparisons with two related languages, Sanskrit and Ancient Greek. These research goals are motivated by the following facts and preliminary considerations on Germanic in general and on the strong verbs in particular.

The strong verbs belong to a set of characteristic features distinguishing Germanic from the great majority of its Indo-European relatives but also from the reconstructed parent language. Other well-known examples are the fixed accent on the initial syllable and the fact that the Germanic tense system with its bipolar opposition between present and preterit appears drastically reduced in comparison to the system that has been reconstructed for Indo-European.² One of the most peculiar idiosyncrasies of Germanic,

2. Polomé (1979) suggests a different reconstruction for the tense system of Indo-European, based mainly on Hittite. According to this, the situation found in Germanic and Hittite is archaic and the rather complex systems of e.g. Sanskrit and Ancient Greek represent more recent innovations. This alternative view has not found much support since there are a number of problems attached to it.

One is that Hittite is the Indo-European language with the earliest attestation, whereas Germanic can only be reconstructed from its different daughter languages, which are attested over a millennium later. In other words, Germanic would then have preserved these archaisms for quite a long time and this implies nearly total isolation, which cannot be assumed for Germanic at all stages. In particular the extreme generalization of ablaut and the high proportion of non-Indo-European vocabulary do not suggest isolation but rather the contrary (cf. Werner 1984: 219).

Another problem is the development of the morphological category *tense* prior to that of *aspect*. According to Bybee (1985), supported by Dahl (1985) and Leiss (1992), the evolution of the grammatical categories *aspect*, *tense* and *mood* universally follows a unidirectional path (but see Lass 2000 for a sceptic statement on unidirectionality). Following this, aspect is required before tense can be developed and only then the category 'mood' evolves. For Hittite an aspectual opposition has never been claimed, some authors explicitly state that Hittite did not have the category aspect (cf. Meid 1979; Cowgill 1979). Germanic is said to have had the aspectual prefix [†]ga- to express the perfective aspect (e.g. Kuryłowicz 1968). However, this claim is mainly based on Gothic (see e.g. Leiss 2002a, b) and thus cannot be fully secured for Germanic. For Hittite (cf. Watkins 2001) and for Germanic (cf. the discussion in the main text), a substantial non-Indo-European influence has been proposed.

however, is the extreme systematization and functionalization of ablaut in the system of the strong verbs. The dominant position of verbal ablaut has frequently been noted as a hallmark of Germanic, expressed in the following sample quotations:

Von einzigartiger Bedeutung wurden die einsilbigen kurzvokalischen Ablautreihen im Germanischen. Sie bilden die Grundlage und das Gerippe von fünf aus sieben Klassen der sog. starken Verba, die mit fast unerhörter Zähigkeit bis ins heutige Deutsch weiterleben. (Szemerényi 1990: 89)³ Ablaut is a far more important feature in Germanic than in any other Indo-European language. (Baldi 1983: 134)

Bei den Verben verzeichnen wir als germanische Neuerung die Ausbildung des ie. Ablauts zu einem wirklichen System. (von Polenz 1979: 20)⁴

Als ein zentrales Ausdrucksmittel im Bereich der Morphologie ist der Ablaut im Germanischen bewahrt und ausgebaut worden. (Meier-Brügger 2000: 139)⁵

Indeed, it is in the verbal system where the high degree of organization through a systematized and functional ablaut becomes especially apparent. The Germanic strong verbs, which include all primary verbs, are almost exclusively categorized according to their ablaut patterns, the well-known *ablaut classes*. Although ablaut itself is an inherited morphological property, its extremely dominant position is unique among the Indo-European languages. Several authors have remarked on typological resemblances between verbal ablaut in Germanic and the Semitic languages (e.g. Ku-

From this brief discussion it becomes clear that the view advanced by Polomé (1979) is too problematic and too controversial to be discussed any further. In one of the most recent studies on the Indo-European verbal system, Jasanoff (2003), confirms its complexity.

- 3. 'Unparalleled significance was attained by the monosyllabic short-vowel ablaut series in Germanic. They form the foundation and the skeleton of five out of seven classes of the so-called strong verbs, which have lived on with almost scandalous tenacity into Modern German.' (Translation by Theo Vennemann in Vennemann 1998a: 41, n.72)
- 4. 'As a Germanic innovation among the verbs we note the development of IE ablaut into a genuine system.' All translations are my own unless indicated otherwise.
- 5. 'As a cardinal means of expression in the field of morphology, ablaut was preserved and extended in Germanic.'

łowicz 1961; Kortlandt 1992; Scheer 1995; Ségréal and Scheer 1997; Vennemann 1998a: 41).

Another peculiarity of Germanic is that its lexicon contains a considerable amount of vocabulary without an Indo-European etymology. Vennemann (1984: 105–106) presents a survey of the literature from which the following quotations are taken:

Auch der Wortschatz, den wir durch Vergleichung der germanischen Sprachen als gemeingermanisch erschließen können, weist dem Indogermanischen gegenüber wesentliche Verschiedenheiten auf. Viele gemeingermanische Wortstämme lassen sich in den anderen ie. Sprachen nicht nachweisen. (von Polenz 1978: 22)⁷

Es steht allerdings fest, daß sich etwa ein Drittel des germanischen Wortschatzes n i c h t aus dem Indogermanischen herleiten läßt. (Hutterer 1975: 44)⁸

Das germanische Wortgut gilt zu stark einem Drittel als nicht etymologisierbar. (Bach 1970: 64)⁹

Möglicherweise gehen auf dieses ethnische Substrat die Anteile am Wortschatz des Germanischen zurück (ungefähr ein Drittel), die sich nicht aus dem Indogermanischen herleiten lassen. (Schildt 1981: 29)¹⁰

It is particularly striking that this problematic vocabulary has a high frequency in certain semantic fields, including military, nautical, legal, social, agricultural terms, names for plants and animals, as well as words from everyday life (see Vennemann 1984: 107–109 for a survey of semantic fields as well as a list of corresponding examples). In addition, it has been suspected that the strong verbs in particular contain a high proportion of

^{6.} Of course, there are differences as well, as particularly Kuryłowicz (1961: §§13–14) points out. Nevertheless, in the use of ablaut Germanic clearly deviates from other Indo-European languages. This point will be discussed in chapter two.

^{7. &#}x27;Also the vocabulary that we can reconstruct as Common Germanic through the comparison of the Germanic languages exhibits significant differences compared to Indo-European. Numerous lexical stems of Common Germanic cannot be posited for the other IE languages.'

^{8. &#}x27;It is an actual fact that about a third of the Germanic vocabulary cannot be reconstructed as Indo-European.'

^{9. &#}x27;Of the Germanic vocabulary a good third cannot be etymologized.'

^{10. &#}x27;It is possible that those parts of the Germanic lexicon which cannot be traced back to Indo-European (about a third) are due to this ethnic substrate.'

non-etymologized vocabulary (e.g. Scardigli 1980: 385; Vennemann 1998a: 42).

2. Internal development vs. external influence

To account for the Germanic peculiarities described above, mainly two explanations have been advanced. Traditional approaches have posited internal language change, whereas alternative hypotheses have proposed external influence, i.e. language contact, as the force behind the changes. Vennemann (2000: 234) illustrates the traditional view before presenting his own, alternative account:

Der traditionelle indogermanistische und germanistische Blick auf die indogermanischen Einzelsprachen und insbesondere das Germanische lässt diese als organische Weiterentwicklung des Indogermanischen erscheinen.¹¹

This view largely rules out a substantial external influence on Germanic (see e.g. Neumann 1971: 95–96; Meid 1984: 101; Seebold 1986: 177). The strong verbs in particular are seen to be firmly anchored in the parent language, as most of them are primary verbs (see Meid 1971: 42)¹². The standard literature largely works descriptively because the postulate of organic development from Indo-European leaves only two possible options. That is, any peculiar feature that cannot be traced back to Indo-European through comparative or internal reconstruction must either be an internally motivated Germanic innovation or an archaism. This certainly limits the explanatory power of traditional approaches. Nevertheless, there exists a strange confidence, one might call it 'belief', that Germanic with all its idiosyncrasies can be reconstructed as purely Indo-European.

Wenn man das Germanische nach rückwärts aufrollt, d.h. wenn man die Indizien, die Morphologie, Wortbildung, Etymologie und Distribution der sprachlichen Elemente an die Hand geben, auswertet, dann wird man im all-

^{11. &#}x27;The traditional Indo-Europeanist and Germanicist view on the individual Indo-European languages, and especially on Germanic, portrays them as products of an organic development from Indo-European.'

^{12.} Although primary verbs as parts of the core morphology and vocabulary tend to be fairly resistant against external influence, research on language contact has shown that "practically any linguistic feature can be transferred from one language to another, if the circumstances are right" (Winford 2003: 25, see also Thomason and Kaufman 1988: 74–76).

gemeinen die bekannten gemeinindogermanischen Strukturen zurückgewinnen können. (Meid 1984: 104–105)¹³

By contrast, hypotheses involving external influence have been able to shed more light on hitherto unexplained phenomena. Studies by Hans Krahe, Hans Kuhn and others have highlighted the fact that e.g. particular features can be found not only in Germanic but also in other western Indo-European languages, such as the fixed accent on the initial syllable, which is also found in Celtic and Italic. Additionally, there are parts of the vocabulary that have led authors to the assumption of a Sprachbund comprising Balto-Slavic and Germanic. Prominent other examples of approaches of this kind are Krahe's Alteuropäischer Kreis ('Ancient European Sphere'), based on his Old European Hydronomy, and Kuhn's Nordwestblock ('North-West-Block').

However, the notion that certain features are common among Western-Indo-European languages only defers the matter, since many of them are still unexplained. A number of authors, going back as far as the 18th century, have therefore suspected that the genesis of Germanic, especially the system of strong verbs, occurred through language contact, probably with a non-Indo-European language.

There is a similar reason, though not quite so forcible, for supposing that both the Gothick and Celtick, though blended with a very different idiom, had the same origin with the Sanscrit.¹⁴

Diese Dialektgruppe [i.e. Germanic] ist entweder indoeuropäischen Ursprungs, weist jedoch starke Sub- wie Superstrateinwirkungen verschiedener auf (der wahrscheinlichere Fall) oder sie ist nicht-

13. 'If Germanic is traced back, i.e. if the hints provided by its morphology, wordformation, etymology and distribution of linguistic elements are evaluated, then generally, the well known Common-Indo-European structures will reemerge.'

Vennemann (2000: 235) calls this 'the view of 19th century romantic philology' ("der Blick der romantischen Philologie des 19. Jahrhunderts"). That this view is still around in the 21st century was demonstrated to me by Frank Heidermanns (Cologne, summer 2002, p.c.), who told me that the majority of problematic words in Germanic would be accounted for once new wordformation rules are discovered. Since none of these rules have been found recently this notion can be called a *belief*, or rather a *conviction*.

Sir William Jones in his well-known statement on the relation of Indo European languages. Quoted from Vennemann (1998c: 122), as the original publication is unavailable to me.

indoeuropäischen Ursprungs und wurde im Zuge einer Expansionsbewegung nachhaltig indoeuropäisiert (der weniger wahrscheinliche Fall). (Braunmüller 2000: 272)¹⁵

Wir dürfen auch in der Vorgeschichte der Germanen eine Begegnung, wenn nicht gar eine Verschmelzung von Stämmen stark idg. Prägung mit Volksgruppen annehmen, die völlig außerhalb der alten idg. Gemeinschaft standen. ... Die Beweise liefern uns einige Erscheinungen der Laut- und Formenlehre und des idg. Wortschatzes. (Scardigli 1973: 45)¹⁶

Das Germanische zeigt eine so charakteristische Eigenentwicklung, z.B. in der starren Festlegung der Betonung, der radikalen Vereinfachung des Verbalsystem und in vielen anderen Zügen, immer in der Richtung von der Vielfalt der Ausnahmen zu schematischer Regelmäßigkeit, daß hier der Schluß besonders nahe liegt, das reich entfaltete Indogermanisch sei in den Mund einer vorher anderssprachigen Bevölkerung geraten, die die Regeln erfasst, die Ausnahmen aber nicht berücksichtigt habe. Auch läßt sich der germanische Erbwortschatz zu einem großen Teil – nach Schätzungen zu einem Drittel – nicht auf indogermanische Wurzeln zurückführen. Auch das legt es nahe, die Einwirkung einer anderen nichtindogermanischen Sprache zu vermuten. (Eggers 1980: 26)¹⁷

Nevertheless, as Thomason and Kaufman (1988: 28–35) in their standard textbook on language contact make clear, the existence of strange phenom-

^{15. &#}x27;This group of dialects is either of IE origin, although displaying strong effects of both substrata and superstrata of various provenience (the more probable case), or it is not of IE origin and was Indo-Europeanized in the wake of an expansive movement (the less probable case).'

^{16. &#}x27;Within the pre-history of the Germanic people, we may assume the encounter, if not the merger, of tribes of a strong IE stock with groups of people which were completely outside the old IE community. ... The evidence is provided by some phenomena belonging to phonology and morphology, as well as the IE vocabulary.'

^{17. &#}x27;Germanic exhibits such unique and characteristic developments, e.g. the rigid fixation of word stress, the radical simplification of the verbal system and in many other ways, always directed from the plurality of exceptions towards schematic regularity, that make the inference particularly attractive that the richly developed Indo-European language was adopted by people with a formerly different mother tongue who learned the rules but not the exceptions. Additionally, it is impossible to trace back a large part of the Germanic core vocabulary to Indo-European – a third, according to estimates. This too suggests the influence of a different, non-Indo-European language.'

8

ena in a language, even if they are typologically highly peculiar, does not automatically permit the conclusion of language contact. This is only justified if the internal reconstruction of a particular property is impossible and a source language can be identified for it. Thomason and Kaufman (1988: 35) emphasize the significance of extra-linguistic conditions: "Linguistic interference is conditioned in the first instance by social factors" (cf. e.g. also Apple and Muysken 1987: 5 and Winford 2003: 25). For historical linguistics this obviously means that the historical situation of any given language is of high significance in exploring language change, particularly if it is viewed as contact-induced (cf. Sankoff 2004 and also Oesterreicher 2001 on the historicity of language).

From what has just been said, it follows that the situation of the Germanic strong verbs certainly permits an investigation of hypotheses advancing language contact as a factor in their genesis. The methods of comparative as well as internal reconstruction have so far failed to satisfactorily explain the morphological development of the strong verbs. What the above-mentioned alternative approaches lack, however, is a detailed account of the strong verbs' peculiarities within a unified framework. In particular, the exact extent of the non-etymologized vocabulary is unknown, given that a quantitative study has never been conducted. If external influence is indeed to be assumed, the historical background and the source language(s) have to be identified and examined. Without this, the suggestion of language contact as a motivating factor behind the genesis of Germanic seems nothing more than an unfounded claim. There are various conceivable forms of language contact, yet the vast majority of authors, including the standard literature, at most accept the mere possibility of some kind of non-Indo-European influence. However, the next logical step in such a line of thinking would be a scientific investigation, including a detailed and quantitative study of the lexicon and the prehistory of Germanic. Unfortunately, this has not been done; therefore, the Germanic strong verbs, according to the communis opinio, have remained an independent Germanic innovation, although, admittedly, a peculiar one.

3. A comprehensive theory of external influence

In sharp contrast to the general assumption that the system of the Germanic strong verbs is a language-internal innovation, Theo Vennemann has pro-

gressively advanced a comprehensive theory accounting for the genesis of Germanic, including the strong verbs. ¹⁸ According to this theory, Germanic was shaped by a substratum of Vasconic languages, as well as by a superstratum of Atlantic languages. ¹⁹ Vennemann (1984a) shows that a good deal of the problematic part of the Germanic vocabulary is distributed across semantic fields that are prototypically prone to being influenced by superstratum languages, i.e. military, administrative as well as cultural terms. By contrast, there are fewer non-etymologized word that are usually attributed to substratum influence, e.g. names of plants, animals and so forth. This becomes clear from comparisons with well-studied cases like English and French, which contain various amounts of superstratum and/or substratum vocabulary whose sources have already been identified. Since then Theo Vennemann has proposed a number of etymologies for unexplained Germanic words based on Semitic languages or Basque. Some of these are key words that provide vital insights into the Germanic prehistory, such as the Germanic words for 'nobility', 'family' and 'people'. 20 It is instructive that words of all three meanings in English were borrowed from a superstratum language, reflecting the social situation at the time of borrowing. In addition to lexical problems, the theory also proposes solutions for structural puzzles of Germanic and its daughter languages, e.g. the split word order and the Germanic accent. Bearing in mind the morphological idiosyncrasies of the Germanic strong verbs, Vennemann (1998a: 42) recalls an "observation of which little has been made in the past. Quite a few of the Germanic strong verbs have no good Indo-European etymologies" (see already Scardigli 1980: 385). As a solution, Vennemann (1998: 41) suggests an explanation of the genesis of the Germanic strong verbs under the influence of a Semitic language:

Ablaut, as every linguist knows, and in particular verbal and deverbal ablaut, is the typological hallmark of Semitic; this includes the oldest attested language, Akkadian, and may therefore safely be inferred for the Atlantic [i.e. Semitic] languages. The Atlantic adstrata and superstrata of Germanic are gone, which suggests that these languages were all given up in a process of language shifting in which the native speakers of Atlantic languages

^{18.} See e.g. Vennemann (2000, 2003c), including bibliographical references; for the strong verbs cf. Vennemann (1998a).

^{19.} Within Vennemann's theory 'Vasconic' refers to languages related to Basque and 'Atlantic' to Semitic languages.

^{20.} Cf. Vennemann (1998b) on folk- 'people', (2001) on apal- 'nobility' and (2003b) on $sibj\bar{o}$ - 'family'.

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learned pre-Germanic; i.e., speakers of a language with a powerful verbal and deverbal ablaut system had to learn a language with lots of different little irregular verbal and deverbal ablaut patterns. In attempts to make sense of these patterns, and with the expectation of regularity based on their previous native linguistic experience as speakers of Atlantic languages, they overgeneralized one or two of the most noticeable patterns they observed in pre-Germanic, ignoring all the rest. In this way they created dialects of Germanic that were likewise characterized by a powerful verbal and deverbal ablaut system. These new dialects were spoken in part by members of those social groups that included the former superstratum speakers, which suggests that they became prestige dialects. As prestige dialects they superseded in time all the other pre-Germanic dialects and formed the basis for the emerging Proto-Germanic language.

Theo Vennemann's theory would also explain another characteristic of the strong verbs, namely the well-known fact that their homogeneity is the result of a process of fusion. The over-generalization of ablaut obscured significant morphological and semantic distinctions of which certain irregularities in the system bear witness (see chapter two). Stedje (1987: 109–110) remarks that "an extended adstrate or diglossia situation often causes a structural approximation of the languages involved, which is possible even at the morphological level". Weinreich ([1953] 1968: 7) already drew attention to what is standard knowledge in modern language contact theory, namely that "language contact can result in such far reaching changes that the affected language assumes a different structural type".

The idea of prehistoric contact between Indo-European and Semitic languages is not new. Linguists in the past and present have shown that insular Celtic possesses distinct non-Indo-European features. It was subsequently demonstrated and established that this is due to contact with Afroasiatic languages (see e.g. Morris-Jones 1900; Pokorny 1927–30; Gensler 1993). As Vennemann (1998a: 4) points out, his idea "is merely a generalization from Ireland … to the entire Atlantic seaboard, the megalithicized coastal regions stretching from North Africa and Spain to southern Sweden". In addition to the existence of a parallel case, Vennemann's theory possesses a methodological advantage over competing approaches. The traditional view is not much more than an unproven claim based on the postulate of organic development from Indo-European and

^{21.} Translation by Theo Vennemann in Vennemann (2003a: 11). See also the vast literature on language contact theory (e.g. Weinreich 1968: 3; Thomason and Kaufman 1988: 48 and Winford 2003: 25).

thus not a substantiated explanation. Propositions of some kind of language contact have a similar problem, as they offer a new path of explanation, but do not present a solution to the problem. The theory of prehistoric language contact of Germanic just sketched, in contrast, does not suffer from these disadvantages, as it posits an explanation for the Germanic problems drawing evidence from linguistics, archaeology, mythology, history and sociology.

In a lot of ways Vennemann's approach proposing language contact as the motivating force behind the development of the Germanic strong verbs fulfils the criteria set by Thomason and Kaufman (1988) mentioned above. In particular, the definition of the social and historical circumstances, including a time frame, which they project as a major requirement, is accounted for. There are, however, two points that need further clarification before this theory can be fully applied to the Germanic strong verbs. First, although the source, i.e. the Semitic verbal ablaut system, has been identified, the process of the proposed development has only been sketched (see Mailhammer 2006 for a concrete proposal). It is in need of further verification. Secondly, even though several etymologies of strong verbs based on Semitic have been published (see e.g. Mailhammer, Laker, Vennemann 2003 and Vennemann 1998a, b, 2002, 2003bc, 2004a), more work has to be done in this area of the Germanic lexicon. Most notably, this includes the collection of quantitative data as a base for future etymological research, a task that represents a central part of the present study.

4. Structure of this study

The research goals formulated in 1. above are directly motivated by the research situation of the strong verbs sketched above. Although the literature acknowledges the morphological peculiarity of the Germanic strong verbs, their more or less pure Indo-European origin is not questioned by the vast majority of authors (see e.g. the quotation from Meid 1984 above and also Meid 1971: 42). This is based on two assumptions.

First, the Germanic strong verbs are seen as largely inherited from the parent language, therefore any substantial external influence is considered improbable. This somewhat circular position is, however, not supported by any empirical evidence, since there exists no quantitative investigation of the etymological situation of the Germanic strong verbs. Hence, the exact number of Germanic strong verbs either possessing or lacking an Indo-European-etymology is still unknown. Even though Germanic words with-

out an Indo-European etymology do not automatically have to be considered non-Indo-European – generally the Germanic vocabulary is seen as inherited unless proven otherwise because Germanic genetically is an Indo-European language – the chance for a non-etymologized word being a loanword is higher than for a lexeme for which an etymological connection with the parent language has already been established and accepted in the literature. Therefore, a quantification of the etymological situation of the Germanic strong verbs is the first step in an investigation of the origin of the Germanic strong verb system. Such a quantification would provide a basis for further research, and would, of course, be an empirical basis for any statement on the etymological situation of the Germanic strong verbs. However, it has to be emphasized that such an investigation is neither designed to find etymologies for hitherto non-etymologized lexemes, nor is it meant to show how many of the Germanic strong verbs are not of Indo-European origin. Rather, the aim of the analysis carried out in this study is to determine how many strong verbs have Indo-European etymologies in contrast to those that do not. Thus, one of the central aims of the present study is to ascertain the accuracy of the traditional position considering he majority of the Germanic strong verbs as inherited.

The second assumption on which the traditional view is based is that the vast majority of the strong verbs are believed to be inherited because the morphological elements forming the foundation of the inflectional system of the strong verbs are without doubt inherited from the Indo-European parent language. Nonetheless, despite the correctness of the facts, the conclusion drawn is not necessarily compelling. This is so because, although the morphological components of the Germanic strong verbs are Indo-European, the lexical material does not have to be of the same origin. This can be illustrated with a well-known example. Even though the conjugational system of Modern English is clearly inherited from Germanic, no one would claim that the vast majority of English verbs are also of Germanic origin. This is simply because the bulk of the etymological evidence undisputedly proves that a sizeable proportion of the verbs are not of Germanic provenance but the result of extensive borrowing from Norman French and other sources. Moreover, apart from similar cases of relexification, the literature on language contact presents numerous cases of second language acquisition in which the learners re-analyse grammatical elements in the target language in accordance with their native grammar without directly importing material of their native language. Re-analyses of this kind can lead to alterations in e.g. the functional value of forms and categories as well as in the organization of the entire system without leaving direct morphological traces (see e.g. the cases of interference in Weinreich 1968: 30, 39).

These considerations show that the majority of diachronic investigations on the Germanic strong verbs have been influenced by a methodological bias that has limited research to the similarities, leaving the peculiar deviations largely unexplained. This bias is to a large degree the result of the assumption that virtually all Germanic strong verbs are of Indo-European origin. In particular, their morphology is generally perceived as a continuation of the verbal system of the parent language. As a result, the hallmark of the Germanic strong verbs, namely the peculiar uniformity and simplicity they attained through the functionalization and systematization of ablaut, has not been evaluated from a typological and contrastive point of view. However, this does not at all mean that the view of Germanic as an Indo-European language is to be given up. It only means that Germanic, like any other language, should be investigated with an adequate openmindedness that allows for the possibility of external influence, even if it turned out to be extensive. If a particular feature of Germanic cannot be explained by an internal reconstructive approach, it seems more than justified to look for a solution elsewhere. This can involve related or nonrelated languages or even non-linguistic factors. In addition, Germanic, like any other language, should be investigated using the full arsenal of modern linguistics, which includes language typology, areal linguistics, language acquisition and perhaps others.

From this it follows that a quantification of the etymological situation of the strong verbs is a clear desideratum, and would undoubtedly have strong implications for existing as well as future hypotheses. In addition, a re-investigation of the key characteristics of strong-verb morphology pointing out differences rather than similarities appears highly desirable. On the basis of these considerations, this study is organized as follows.

First, the goal of the morphological analysis is to show that the strong verbs of Germanic form a highly organized system whose elements are largely inherited, but whose organization differs typologically from the parent language and all other related languages. In addition, the various processes of heavy morphological regularization and peculiar semantic mergers that took place in the evolution of this system are examined. To this end, the first part of chapter two investigates the morphological position of ablaut and reduplication in Germanic as well as the Indo-European parent language, focusing on the question whether the property in question is a distinctive or a redundant feature, i.e. whether it can differentiate minimal pairs from a functional viewpoint or not. The reason for this is

that, according to the general opinion, it is the position of ablaut within the verbal system that is the central difference between Germanic on the one hand and its Indo-European relatives and the parent language on the other. Unfortunately, this notion has never been thoroughly analysed, which, however, is without doubt desirable in order to pinpoint what exactly the difference is.

In the second part of chapter two the strong verbs are presented as a highly organized system, whose mechanism is then explained in detail. Additionally, the well-known peculiarities, such as the lengthened grade in classes IV and V, are discussed and incorporated into the morphological analysis. The reduplicating verbs are also discussed as a group and further internal ordering principles of the presented system are suggested. chapter two concludes with an examination of peculiar irregularities of the strong verbs that in the past have caused problems for the reconstruction of the development of the strong verbs. These irregularities are viewed as traces of morphological and semantic differences that were largely levelled in a regulatory process. The conclusion drawn from this morphological analysis is that an organic development of the Germanic strong verbs is not the only plausible view and that the assumption of language contact is a conceivable option.

The second central part of this study is a quantitative etymological evaluation of the Germanic strong verbs carried out in chapter three. Its provides an empirical database complementary to the morphological investigation. On the basis of the etymological handbooks, a transparent and detailed account of the etymological situation for this part of the Germanic lexicon is given. This includes a discussion of the conceptual approach of etymological investigations in general and the development of a methodological framework designed to evaluate etymologies quantitatively. Applying this quantitative method to the Germanic strong verbs, the exact amount of non-Indo-European material is determined on the basis of current data and evaluations. Comparisons with Ancient Greek and Sanskrit are carried out in order to underline the etymological peculiarity of the Germanic strong verbs. Chapter four summarizes the results of this study and presents the major conclusions, as well as some additional thoughts. This also includes recently suggested etymologies for Germanic strong verbs to demonstrate possible avenues of future research. The Appendices contain some data from the morphological investigation (Appendix A), the database of the quantitative analysis (Appendix B), as well as alternative quantitative evaluations based on different methodological considerations (Appendix C).

Chapter two Systematized and functionalized ablaut: The morphology of the Germanic strong verbs

This chapter first examines the principal morphological elements of the Germanic strong verb, i.e. ablaut and reduplication, from a systematic, comparative and diachronic point of view. The focus is on the typological position of ablaut in the morphology of the Germanic strong verbs in comparison to the verb system of the parent language. The second part presents the highly organized system of the Germanic strong verbs. In addition to the re-investigation of some well-known morphological problems, such as the lengthened grade in classes IV and V, this chapter explores the various processes of regularization and simplification that have rendered such a remarkable degree of uniformity to the system of the Germanic strong verbs.

1. The foundations of the system: Ablaut and reduplication

Ablaut and reduplication are the two morphological devices used in the stem formation of the Germanic strong verbs.²² In the history of the Germanic verb the significance of reduplication decreases as the dominance of ablaut grows. In this chapter the fundamentals of ablaut and reduplication are examined from a diachronic and typological point of view paving the way for the analysis of their status in Germanic.

1.1. Ablaut

1.1.1. The nature and origin of ablaut in Indo-European

The standard handbooks define *ablaut*, a term invented by Jacob Grimm (also *vowel gradation/alternation*, *apophony*), as the regular alternation of

^{22.} See 1.3.2 below for a discussion of Germanic stem formation and the role of the inherited suffixes.

vowels in roots and affixes of etymologically and morphologically related words (see e.g. Birkhan 1985: 132). Ablaut as a phenomenon is not only found in Indo-European and its daughter languages, but also in other language families, most notably Semitic with its extensive and highly functional ablaut system. In fact, many handbooks and standard articles on morphology and language typology from past and present have used Semitic languages to illustrate ablaut (see e.g. Finck [1936] 1965 and Spencer 1998).

Commonly, two kinds of ablaut are distinguished, *quantitative* and *qualitative*, referring to vowel quantity and quality, respectively. Quantitative ablaut causes the ablauting vowel to appear either unaltered (full grade), lengthened (lengthened grade), or not at all (zero grade): FG: *sed-(Gmc. *setja-), LG: *sēd- (L sēdī), ZG: *-sd- (IE *ni-zd-os, E nest). In addition, several authors have posited a reduced grade (e.g. Kuryłowicz 1956: 38; Harðarson 1993: 25 and Rasmussen 1995: 97-98). Kuryłowicz (1956: 38-40) claims that the reduced grade played a crucial role in the genesis of qualitative ablaut, but he (1956: 39) admits the unproven status of his considerations. It seems to be the problem of all hypotheses suggesting a reduced grade that its existence has not been ascertained, although it appears conceivable that it existed at some stage as a consequence of the absence of stress. Nonetheless, the reduced grade does not play any significant part in Indo-European morphonology; it therefore does not constitute a focal point in this study.

In the case of Indo-European the close connection between stress and the opposition of full vs. zero grade has long been recognized. For instance, Kuryłowicz (1956: 136) states: "L'alternance degré plein : degré zéro en fonction de l'accent est en même temps un trait essentiel de la morphologie indo-européenne". There certainly exists a universal connection between vowel length and stress, particularly between vowel reduction and the absence of stress (see e.g. Vennemann 1991: 233–234 and Fulk 1986: 16–17). This is evidenced by the numerous cases of vowel reductions in unstressed syllables, for example in the Germanic languages. However, this is likely to have been a gradual process, as a characteristic of quantity languages is the independence of vowel quantity and stress. Conversely, the loss of this independence goes along with the elimination of vowel quantity as a distinctive feature, as e.g. in Modern Standard German (see e.g. Vennemann 1991, 1995; Becker 1998; Maas 1999; Primus 2003

^{23. &#}x27;The alternation of full grade: zero grade according to accent is also an essential feature of IE morphology.'

and Restle 2003). Thus, as far as Indo-European is concerned, the reduction of vowels points to a period of a dynamic stress pattern (see also Fulk 1986: 16). This not withstanding, the relationship between stress and quantitative ablaut works only one way. Reduced or zero grade chiefly results from the absence of stress, but it has to be emphasized that the absence of stress does not automatically cause vowel reduction in Indo-European, as full grade and also lengthened grade can occur in unstressed position. This is clear from the fact that in polysyllabic words not all unstressed vowels are automatically reduced in Indo-European. Otherwise all Indo-European languages would have inherited a system that has an opposition of full stressed syllables vs. reduced unstressed syllables, but this is obviously not the case. Summing up, the absence of stress in early Indo-European caused vowel reduction leading to reduced (at least temporarily) and zero grade vowels (cf. also Szemerényi 1990: 166–167; Beekes 1995: 166; Laker 1997: 20; Tichy 2004: 39 and Meier-Brügger 2000: 142).

The origin of the lengthened grade is mostly attributed to morphonological processes such as contractions (Szemerényi 1990: 124), expressive characterization (Kuryłowicz 1956: 146) or compensatory lengthening (Lehmann 1993: 130–131 and Birkhan 1985: 134). In the majority of cases the disappearance of a laryngeal probably caused lengthening of the preceding vowel (see Birkhan 1985: 134; Laker 1997: 23; Tichy 2004: 37 and Meier-Brügger 2000: 142). Nonetheless, the assumption by Kuryłowicz (1956: 142) that the lengthened grade in Indo-European did not have the significance it has in the attested languages is a sweeping claim that would have to be investigated in detail, as there are clear cases of apparent primary lengthened grades in so-called "acrostatic" formations, which seem to belong to the core inventory of Indo-European verbal morphology (see e.g. Tichy 2004: 76, 107–108).

According to the traditional view, qualitative ablaut ("Abtönung") was caused somehow by accent (see e.g. Birkhan 1985: 132 and Braune 2004b:

^{24.} Meier-Brügger (2000: 142) points out that there are rare cases of accented zero grades (IE +u/sku-o- 'wolf'). Kuryłowicz (1956: 137) had already acknowledged this fact and suggested that they are secondary, but does not specify their development. Rasmussen (1995) shows that sometimes accented zero grade is due to reductions of first syllables in compounds, i.e. that this is essentially a phenomenon of phonotactics. I agree, in principle reduction of vowels can have other reasons than the absence of stress but as a general rule this can be precluded for Indo-European. Tichy (2004: 39) formulates an early rule: unstressed *e* > Ø.

54). On account of this, Gamkrelidze and Ivanov (1995: 148) propose "o-vocalism as originally a variant of weak grade" (see also Beekes 1995: 166). Some authors have attempted a more precise explanation arguing that the musical accent of Indo-European was the reason for the "Abtönung" of full grade and lengthened grade vowels (see e.g. Lehmann 1993: 130–131). A contrasting opinion is the assumption of a morphonological origin of qualitative ablaut, as advanced by Kuryłowicz (1956: 37): "Les changements de timbre sont conditionnés d'abord par l'entourage phonétique, l'accent n'y jouant qu'un rôle tant au plus secondaire". Several authors have followed Kuryłowicz in this suggestion, in particular Szemerényi (1990: 126–127) and Meier-Brügger (2000: 142). Kuryłowicz (1956: 37–73) explains the basic change e > o in detail by positing the vocalization of assumed reduced vowels before sonorants, which was subsequently generalized and used morphologically to mark the perfect stem as well as certain deverbal nouns (see also Mańczak 1979 for a slightly different view).

According to the chronology proposed by Kuryłowicz (1956: 96), qualitative ablaut as a morphological feature evolved first, then quantitative ablaut was morphologized (cf. also Szemerényi 1990: 126-127). In contrast, e.g. Lehmann (1993: 131) and Fulk (1986: 16-17) have advanced a reversed chronology that is based on the assumption that the different kinds of accent (musical vs. dynamic) caused the different types of ablaut. The two proposed chronologies cannot be compared directly because Kuryłowicz refers to morphologically based ablaut and Lehmann and Fulk to phonologically conditioned ablaut. It seems plausible that the reduction of vowels in unstressed position was the first step. This is supported by Kuryłowicz's analysis according to which the reduction of full vowels motivated the development of the e - o ablaut. The morphologization of the zero grade could in principle have happened before or after the establishment of qualitative ablaut. Yet, it is perhaps more convincing to suggest that it developed after the establishment of qualitative ablaut. In the beginning reduced vowels were just a consequence of the absence of stress and thus predictable. If Kuryłowicz's proposed evolution of the qualitative ablaut is correct, then the morphologization of reduced vowels as an additional distinctive element is clearly motivated. A suggestion of the reverse chronology would have to explain the fact that zero grade ablaut is not extended significantly beyond its original environment, i.e. that its morphological use was still closely tied to its phonological origin. If Kuryłowicz's

^{25. &#}x27;The changes in the voice pitch are conditioned by the phonetic environment, with accent playing only a secondary role.'