

Phonological and Morphological Patterns in Old High German Umlaut

By

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Abstract

Scholarly treatments of umlaut (*i*-mutation) in Old High German observe, as far back as the earliest handbooks (e.g., Braune 1886), that *hC clusters tend to block umlaut of short *a to *e*, but stop short of regarding the fronting and raising of short *a* → *e* before *i(:) or *j (“primary umlaut”) as a diachronically intermediate step between Germanic raising of *e* before *i* (e.g., pre-Gmc *nemizi → PGmc *nimizi ‘du nimmst’) and the more comprehensive fronting of long *ā and back vowels before *i (“secondary umlaut”). By obtaining and analyzing data on the success rate of orthographic umlaut with respect to various phonological and morphological environments, this dissertation lays the groundwork for painting a more nuanced picture of the evolution of German umlaut in accordance with the “Wisconsin School” view (Buccini 1992, Iverson & Salmons 1996, Howell & Salmons 1997) that primary umlaut is to be regarded not as a monolithic sound change but as gradual process that began in certain environments and later spread to others.

I examine tokens from two major OHG texts (Otfrid’s *Evangelienbuch* and two different MSs of the German-Latin glossary *Abrogans*) as well as three shorter texts with diverse chronological and geographical origins (the OHG *Isidor*, the *Murbacher Hymnen*, and the poetic fragment *Muspilli*). Besides marking for the obvious features (umlauted vowel written as <e>, trigger as <i>, and intervening consonants), I also assign the morphological relationship between trigger and umlautable vowel to one of four categories that represent diminishing presence of an umlaut trigger in the paradigm:

Root trigger:	<i>megin</i> ‘strength’	← *magin-a-
Stem trigger:	<i>steti</i> ‘place (DAT)’	← *stad-i-
Inflectional trigger:	<i>ferit</i> ‘goes’	← *far-i-d
Derivational trigger:	<i>kihenkitha</i> ‘agreement’	← *ga-hang-iþō-

The resulting data attest different manifestations of primary umlaut between the source texts but parallel overall patterns in the phonological and morphological spread of umlaut of short *a in Old High German, which can shed critical light on how the process of primary umlaut originated.

Abbreviations

1	first person
2	second person
3	third person
ACC	accusative case
DAT	dative case
DEF	definite
FEM	feminine gender
GEN	genitive case
Gk	[Ancient] Greek
K	<i>Abrogans K</i> = Cod. Sang. 911
IMP	imperative mood
IND	indicative mood
INDEF	indefinite
INST	instrumental case
MASC	masculine gender
MH	<i>Murbacher Hymnen</i>
MHG	Middle High German
MS	manuscript
NEUT	neuter gender
NOM	nominative case
OE	Old English
OIr	Old Irish
OHG	Old High German
ON	Old Norse
OPT	optative (subjunctive) mood
OS	Old Saxon
Pa	<i>Abrogans Pa</i> = Cod. Parisinus 7640
PGmc	Proto-Germanic
PL	plural
PRES	present tense
PRET	preterite tense
S[#] (e.g. S6)	strong verb class (e.g. Class 6 Strong)
S.E.	standard error of the mean
SG	singular
Skt	Sanskrit
W[#] (e.g. W1)	weak verb class (e.g. Class 1 Weak)
WGmc	Proto-West Germanic

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Chapter 1: Introduction & Theoretical Frameworks

1.1 Introduction to Topic

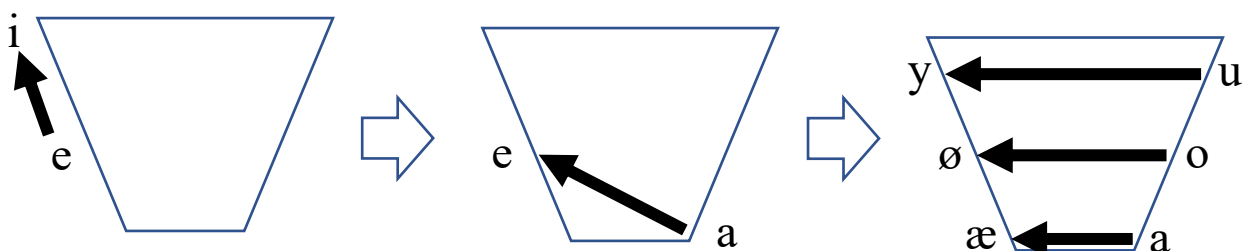
Of all the component sound changes of general i-mutation in the Continental West Germanic languages, the shift of short *a to *e* before *i is the earliest to be attested with somewhat regularity in the orthography of the vernacular dialects. This development entails both a fronting and a raising component as the open non-front vowel [a] drifts across the vowel space in phonetic anticipation of the close front vowel [i] in the following syllable, or its semivowel counterpart [j], to merge eventually with inherited *e. This has been given the name “primary umlaut,” a term meant to be contrastive with “secondary umlaut,” a distinct development with only a fronting component and no raising, which includes the shift to [æ] of those instances of short *a that stood before the segment *h in coda position (e.g. *maht-īga- → *mächtig* ‘powerful’).¹

Braune writes in his *Althochdeutsche Grammatik* (2004: 15th ed.): “Das Aufkommen dieses sog. ‘primären’ Umlauts von *a* zu *e* können wir in den Denkmälern verfolgen” [We are able to track the emergence of this so-called ‘primary’ umlaut from a to e in the [OHG] monuments] (§27). This is true to an extent. Although the *absence* of umlaut of *a before coda *h is well-established from the Old High German texts, the degree to which primary umlaut (*a → [e]) is written varies widely from text to text, and it is not always clear how much credence should be given to the orthographic tendencies of a particular monastic tradition.

More recent scholarship on umlaut—beginning with Buccini (1992), but I will elaborate on this in **1.2**—contextualizes primary umlaut as an intermediate step between Northwest

¹ There is a trend, especially in German scholarship, for “secondary umlaut” (*Sekundärumlaut*) to refer *only* to the shift of short *a to [æ] before coda *h and for all other non-primary developments to be referred to as *Restumlaut* “umlaut of the rest.” In this dissertation I will use “secondary” to refer to *all* non-primary cases of i-mutation in Continental West Germanic.

Germanic height harmony, which occurred purely vertically in the vowel space, and secondary umlaut, which has only a horizontal component.



NWGmc height harmony

Primary umlaut

Secondary umlaut

The purpose of this dissertation is to use textual data to explore the possibility that primary umlaut itself was not a monolithic development across the Continental West Germanic dialect continuum, but might rather have left traces—especially in earlier OHG texts—indicating that this superficially simple sound change began in certain phonological environments and spread to others, with coda **h* merely occupying the last place in a more nuanced ordering of consonantal environments across which the **a* → *e* change gradually spread. It is true that the phenomenon of *i*-mutation can be observed in other dialects of West Germanic as well as in North Germanic; however, Old High German is unique in that—whereas Old English, Old Saxon, and Old Norse present a situation where *i*-mutation of short **a* → *e* is complete—it affords us a look at the process unfolding, so that the jagged edges of the sound change observable in OHG texts can shed light on how the sound change began and evolved.

At the same time, the OHG sources could offer evidence on how the phonological shift of **a* → *e* has in a particular place and time already been codified into the grammar (“grammaticalized”) and itself becomes the morphological marker—as opposed to the triggering segment **i(:)* or **j*—of certain grammatical distinctions, such as *du trāgst* “you (SG) carry” vs. *ihr tragt* “you (PL) carry. In addition to testing the rate of orthographic umlaut with respect to the

phonological conditions (i.e. the consonant or consonant cluster intervening between the trigger segment and the target *a), I test whether umlaut is more frequently written in some morphological environments—e.g. the 2SG and 3SG present indicative of Strong Class 6 verbs like *tragen*—than in others.

In order to do this, I assemble a corpus of Old High German texts and gather all tokens from each of them which—based on certain criteria that a reconstructed West Germanic form must fulfill—could possibly be expected to undergo umlaut of short *a (including umlaut over coda *h). The methodology of token collection is explained in **2.1**. In addition to the tokens themselves, I collect an array of different information about

- whether umlaut appears orthographically
- whether the trigger segment appears orthographically
- the consonant or consonants that intervene between trigger *i(:) or *j and target *a
- the kind of inflectional or derivational affix in which the trigger segment occurs
- all other possible grammatical information that could be useful (verb class, verb mood; noun class, noun case; etc.)

Section **2.2** goes into detail about these data and how I make consistent judgments for each that are as precise as possible. All of this token information is managed in an Excel spreadsheet, with the final dataset moved into a Word document and attached as an Appendix **8** to this dissertation. I analyze the data outlined above with the R programming language and present the results in Chapters **3–5** in the form of graphs and tables produced with the R Studio software, with error bars displaying the standard error calculation.²

² The standard error of the mean (S.E.) is calculated as $S.E. = \frac{\sigma}{\sqrt{N}}$, where σ is the *standard deviation* and N is the count of tokens within a given subset of the data (e.g. tokens with the cluster *nC—that is, /n/ followed by at least one other consonant—intervening between the trigger and target segments).

The corpus assembled for this study contains six Old High German texts, and was put together with the intent to represent diversity of chronological and geographical/dialectal provenance as well as text type. Further information on each text is provided in Chapters 3, 4, and 5, in which the analyses on the texts are performed and interpreted, but here is a general overview of the six texts that comprise this corpus and what specific purpose each serves in this study, arranged by chapter number in this dissertation:

[3] The *Evangelienbuch* of **Otfrid** von Weißenburg:

MS: Cod. Vindobonensis 2687 | Tokens: 2,008 | Dialect: South Rhenish Franconian |
Date: late 9th cent.

Otfrid’s *Evangelienbuch* is a massive five-book rendition of the life of Christ as told in the Gospels, in the form of rhyming lines of verse. It offers plenty of umlaut tokens and thereby can help us establish a “status quo” for umlaut in a northwestern location in the Upper German region at a date that is towards the middle of the OHG period. It serves better as a base for looking further back in time than the writings of Notker (late 10th–early 11th cents.) which are too late for this purpose. Otfrid is likewise preferable to the OHG *Tatian* Gospel harmony as it is an original composition in the German language and not a translation from Latin.

[4] The Kero-Hrabanus Glossary (“**Abrogans**”):

MS: Cod. Sangallensis 911 = “**K**” | Tokens: 637 | Dialect: Alemannic | Date: late 8th cent.

MS: Cod. Parisinus 7640 = “**Pa**” | Tokens: 421 | Dialect: Bavarian | Date: late 8th cent.

The standard deviation itself is calculated as $\sigma = \sqrt{\frac{\sum_{i=1}^N (x_i - \bar{x})^2}{N-1}}$, where N is the token count for a particular subset of the data and $\{x_1 \dots x_2 \dots x_N\}$ are the observed values of umlaut for each token. Since this dissertation for the sake of convenience treats the presence and absence of orthographic umlaut as a binary value (see 2.2.b for details on how this is done), this x_i value will be either 0 (umlaut = FALSE) or 1 (umlaut = TRUE) for each token.

\bar{x} represents the mean of umlaut success for this subset, i.e. $\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$.

(?)³

These two Abrogans MSs offer relatively high token counts. After originally planning on using just one MS from this family I decided that a side-by-side comparison of multiple MSs with virtually the same content could potentially help control for any artificiality introduced by copying in one or the other. (In 4.4 I do make some observations about how the two Abrogans MSs stack up against each other and present some common problems.) A difficulty with this text type—word-for-word glosses of Latin words or phrases in a list—is a dearth of diversely inflected forms; in the Latin original, the verbs tend to be infinitives (or sometimes the 3SG present indicative) and nouns tend to be given in the nominative singular, although not as an absolute rule.

[5] The Old High German *Isidor*: MS: Cod. Parisinus Lat. 2326 | Tokens: 114 | Dialect:

Franconian (?) (See 5.1) | Date: beginning of 9th cent.

The *Murbacher Hymnen*: MS: Cod. Junius 25 | Tokens: 139 | Dialect: Alemannic | Date: early 9th cent.

Muspilli: MS: Cod. Lat. Monacensis 14098 | Tokens: 40 | Dialect: Bavarian | Date: early to mid-9th cent.

The aim with these three texts is to present a small survey of text types not encountered in Chapters 3 and 4, with the same dialectal spread as those chapters. A consequence of moving away from Otfrid and Abrogans is very low token counts, with *Muspilli* offering as few as 40. But this way the dissertation project can at least take a look at the state of umlaut in alliterating Germanic epic poetry (*Muspilli*) and make some cursory observations. *Isidor* is a body of theological prose translated idiomatically—i.e. not

³ The copy of Abrogans Pa itself is significantly (approx. 50 years) younger than the language it represents (Bostock p. 83).

glossed word-for-word—from a Latin original. The Murbach Hymns are interlinear glosses of a Latin original, which, unlike Abrogans, contain plenty of forms inflected in different ways.

The primary goal of the project is to establish where the primary umlaut sound change is situated, phonologically and morphologically, across a varied Old High German corpus. Much of the past corpus work on this question either focuses only on the prominent role of coda *h in blocking umlaut or extends far into the Middle High German period to reconstruct a chronology of umlaut at large.⁴ Important findings in this study are any patterns that source texts attest that link loss of the trigger *i(:) or *j with orthographic umlaut, or that show a particular consonant or consonant cluster favoring or disfavoring umlaut across it, or that suggest that umlaut is more or less likely to be written when the trigger segment (whether orthographically present or not) belongs to a particular morphological subcategory (e.g. the comparative/superlative endings PGmc *-iza(n)-/*-ista-). Any meaningful statistical relationships in these areas will shed light on how the *e~a* alternation called “primary umlaut” functions within the phonology and morphology of Old High German dialects. The issue, therefore, does not only concern Germanic linguistics but has significance—as a look at various snapshots documenting the “rough edges” of a sound change, to borrow a phrase from Iverson & Salmons (2004)—for diachronic linguistics as a whole. Umlaut of short *a is attested at so many different stages of development in Old High German literature that any deeper knowledge of how it became incorporated into the phonology of the dialects and later into the grammar—or even leveled out of certain grammatical categories—will constitute a valuable contribution towards a better understanding of how sound change in general spreads and evolves through time and space.

⁴ See 1.2 below.

1.2 Theoretical Framework

The earliest scholarly treatments of umlaut in Old High German paint a picture where umlaut of short *a occurs at a relatively early date, towards the beginning of the Old High German period, and where non-primary umlaut (of short *a across certain intervening consonant clusters, as well as all back vowels generally) takes place some centuries after this, around the beginning of the Middle High German period. So in his *Mittelhochdeutsche Grammatik* (1883), Karl Weinhold regards PGmc *a undergoing i-mutation as a sound change chronologically prior to that of other vowels. “Beschränkt ward [der Umfang des *a*] seit dem 8. Jahrhundert durch den Umlaut in *e*, besonders bei einfacher Stammconsonanz“ [The extent of *a* was confined by umlaut into *e* beginning in the 8th century, particularly before single consonants.] (p. 22). Weinhold provides further detail about what kinds of intervening consonants or combinations thereof can prevent i-mutation: “Zweifacher Consonant, namentlich doppelter Nasal, ferner *l* und *r* + muta, *ht* und andere Gutturalverbindung, ebenso *tz*, schützen das *a* der Stammsilbe oft vor der Einwirkung des *i* der Endung“ [A double consonant—namely double nasal, furthermore *l* or *r* + voiceless consonant, *ht*, and other guttural clusters, as well as *tz*, frequently protect the *a* of the stem syllable from the [umlauting] effect of the *i* of the ending.] (ibid.). Weinhold provides rough termini ante quos for the i-mutation of the other vowels, with short *u* beginning to undergo umlaut “verhältnismäßig früh” [relatively early] in the 9th century (pp. 68, 70), its long counterpart *ū* from the end of the 10th century (p. 114), *ō* from the 11th century onwards (p. 109), and finally long *ā* in the 12th century. Weinhold’s account of the development of OHG umlaut is characteristic of the scholarship of his time, concurring with other handbooks like Braune’s (1886; 2004, 15th ed.) *Althochdeutsche Grammatik*. The dichotomization of i-mutation into a pre-OHG wave of short *a and a post-OHG wave of all other umlauted vowels is largely in

agreement with the explicit marking of these respective phonological changes in the orthography.

A notable departure from this two-part model was Twaddell's (1938) analysis that OHG umlaut was a stratified process only in terms of its piecemeal emergence into the written language, and that the actual changes to the phonological system occurred all at once. In Twaddell's view, the fact that the Old High German texts for the most part only indicate umlauting of short *a* does not point to a real historical antecedence of this vowel undergoing mutation relative to other vowels, but is essentially an accident owing to the articulatory proximity of this vowel to the pre-existing PGmc **e*. For Twaddell, the various reflexes of *i*-mutation all undergo phonologization at the same time—namely, as an immediate consequence of the merging of post-tonic vowels into [ə] (in other words, loss of the umlaut trigger). However, even prior to phonologization—when the mutated vowels are still merely conditioned allophones—the umlauted reflex of **a* already lends itself to being written with a distinct orthographical symbol <*e*> from its non-umlauted allophone. This is possible because it completes a parallelism between the allophones of **a* and preexisting **e*, which at this point only exists before low vowels, having undergone height harmony to **i* in Northwest Germanic before **i* (and before **u* in High German; less consistently in other West Germanic dialects). Twaddell sees the unique orthographical situation with short **a* as a balancing out of an uneven arrangement of allophones:

* <i>a</i> Ci	[e]	→	eCi
* <i>e</i> Ca	[ɛ]		eCa
* <i>a</i> Xi ⁵	[æ]		aXi

⁵ By *X* Twaddell refers to a consonant cluster such as **h*+*C* that inhibits primary umlaut of *a* → *e*.

*aCa [a] aCa (Twaddell 1938)

One of the three phonetic variants of *a, then, is reanalyzed as the new higher variant of *e (replacing PGmc *e, which is now *i in such an environment). Twaddell posits that [æ] functions as a high—rather than front—variant of *a, occurring when umlaut is stunted by a blocking environment. This sound, along with the umlauted reflexes of the other back vowels, existed from an earlier point but did not merit separate orthographical representation *until* they became distinct phonemes in their own right when the umlaut trigger became weakened past the point of operating as such.

Following Twaddell, numerous others have taken the position that Old High German i-mutation, regardless of how it may be manifested in the orthography of the texts, was not divided into two separate periods of “primary” and “secondary” umlaut, but occurred when the fronted allophones were phonologized all at once. Penzl (1949) continues this perspective, and goes so far as to say that the so-called “secondary” development of *a to [æ] in the presence of blocking consonants “might actually be regarded as older than the primary, since a general allophonic variation [æ] ~ [ɛ] ~ [e] for the phoneme a before an i-sound must have preceded the attraction of most of the allophones to the phoneme e” (p. 227). In other words, the movement to [e] in non-blocking environments is actually an exceptionally advanced version of the general umlauting to [æ], of which “the secondary umlaut is, in a way, a residue” (ibid.).

A third wave in scholarship on Old High German umlaut has emerged in more recent years, which attempts to reconcile the chronological disparity between primary and secondary umlaut, characteristic of earlier treatments of the subject, with the now-canonical “Twaddellian” interpretation that primary and secondary umlaut are tightly connected, and in a way represent the same phenomenon. Buccini (1992) regards the absence of secondary umlaut in Dutch as a

result of linguistic contact between Ingvæonic (coastal West Germanic) dialects on one hand, with more or less complete i-mutation and subsequent unrounding (as in most dialects of Old English), and Frankish dialects on the other, which had begun to undergo i-mutation at a rate more comparable with High German (p. 481). The incipient post-primary umlaut of Frankish would not have been easily learnable for Ingvæonic speakers whose phonological inventories no longer contained front rounded vowels.

Buccini's explanation of Dutch umlaut as having been stunted in an early phase by what he calls the "Frankification" of previously Ingvæonic areas (p. 439) serves as a rebuttal to the Twaddellian notion that primary and secondary umlaut are chronologically one and the same. "[T]he interruption of the process through language contact resulted in the maintenance of a reflexion of an early stage of umlaut development, a stage which cannot be so clearly reconstructed from the evidence of dialects in which the process ran its full course, such as German or English" (p. 481). The evidence from Dutch both demonstrates that umlaut unfolded chronologically over various stages and also "lends credence to the interpretation of the Gothic evidence" that there is no operative i-umlauting in Gothic—i.e. that i-mutation is einzeldialektisch and cannot be reconstructed for Common Germanic (p. 479).

The incomplete state of i-umlaut in Dutch suggests that the "secondary" reflex [æ] before a blocking environment does not represent an earlier stage in primary umlaut (as Penzl 1949), but rather is a later development. Iverson, Davis, and Salmons (1994) liken the traditional blocking environments of OHG umlaut (e.g. liquid + consonant: *aldi* 'age' in Abrogans K, from PGmc *aldīn-) to the consonantal environments that trigger breaking in Old English (e.g. *healdan* 'to hold,' from *haldana), as also accounted for by Howell (1991). These separate but parallel phenomena exhibit an effect by consonants on neighboring vowels, on the basis that

vowels and consonants can be characterized by the same features (Clements 1993); for example, the central consonants of OHG *scatwen* ‘beschatten, Schatten geben,’ from PGmc *skadwijaŋa (a weak verb built off of PGmc *skadwaz ‘shadow’) do not permit a harmonizing effect on the tonic vowel *a because “the glide /w/ carries a specification of its own for V-Place, namely, [dorsal]” (Iverson, Davis, & Salmons 1994, p. 12).

Iverson and Salmons (1996) not only continue the idea that secondary umlaut was a later development out of “primary” umlaut, but also contextualize the original i-mutation of short *a itself as a continuation of the height harmony whose effects are common to Germanic (although the Gothic evidence is ambiguous as to whether the phenomenon might be restricted to North and West Germanic). Thus, PGmc *i and *u in tonic syllables lower to *e and *o—primary and secondary splits, respectively, by the nomenclature of Hoenigswald (1965)—when any of *a, *ē, or *ō occurs in the following syllable (IE *wiros > OHG *uuer* ‘man’); similarly, PGmc *e raises to WGmc *i in anticipation of a following high vowel (IE *peku > OHG *fihu* ‘cattle’). Taking into account Buccini’s (1992) interpretation of primary umlaut as chiefly a raising and only secondarily as a fronting, it then “becomes a most natural step on the road from height to frontness harmony” (Iverson & Salmons 1996, p. 6).

Not only do Old High German texts exhibit the absence of primary umlaut in certain phonological environments (e.g. *mahtig* for PGmc *maht-īga-), but modern German dialects provide examples of where even secondary umlaut has failed to take place. Howell and Salmons (1997) analyze these “umlautless residues” and observe that failure of secondary umlaut occurs most frequently with *u, *ū, and *au (> OHG *ou*), which represent the shortest articulatory distance between unlauded vowel and trigger. Just as the Dutch situation shows the umlaut process frozen shortly after its beginning, “regularly affecting only environments where target

and trigger are phonetically most highly differentiated” (p. 92), data from modern Upper German dialects, such as *muck* < WGmc *muggjō ‘fly’ (cf. standard *Mücke*), reflect umlaut becoming inoperative just before reaching its final targets *u, *ū, and *au.

Holsinger and Salmons (1999) also consider the “residues” that reflect a premature cessation of umlaut, not only with regard to frontness harmony in Upper German, but even as early as the preterite optative of weak verbs in Old High German (such as *sterken*), where primary umlaut frequently fails, e.g. *irkantin* ‘might recognize (PL)’ (Otfrid 3.20.79) ← *-kannidīn; *santi* ‘might send (SG)’ (Otfrid 4.19.50) ← *sandidī. The authors suggest a phonological reason for this apparent irregularity, and argue in favor of phonological accounts for such phenomena, invoking the concept of “ingenerate umlaut” from Iverson and Salmons (1999), which regards the development of umlaut in the Northwest Germanic languages as “built-in rather than accidental” (p. 1). However, Holsinger and Salmons also note the presence of a contrasting perspective in umlaut scholarship, towards morphological explanations— notably, with particular attention to the preterite optative of the OHG weak verbs, Wilmanns (1897), Robinson (1975, 1980), and Janda (1988).

Chapter 2: Methodology

2.1 Token Definition

On what grounds can we say that a given textual form might potentially have exhibited primary umlaut? In this section I will enumerate and expand upon the various criteria a token must meet in order to be taken as a data point in this study. Given the variation between dialects and time periods in the source material, as well as many orthographical inconsistencies within individual sources, the judgment of whether a particular token is an umlaut candidate is made based on a recent and reliably reconstructed pre-umlaut state, the common West Germanic form of that token. The need to work from a West Germanic reconstruction will be explored further in **2.2.a.**

The West Germanic reconstruction of a particular Old High German token must exhibit a handful of features—the basic ingredient list for primary umlaut—in order to prove itself a candidate for this corpus study. Those features are:

- a. the short vowel *a
- b. the syllable containing *a as its nuclear vowel has primary or secondary word-stress
- c. the following syllable has *i or *i: in its nucleus or *j in its onset

Theoretically, every Old High German word whose West Germanic forbear exhibits all three of these features is a candidate for primary umlaut. However, there are some further considerations that must be made for the purposes of this study—additional candidates for primary umlaut that do not, strictly speaking, have the trigger sound in the immediately following syllable in the West Germanic form, as well as would-be candidates for umlaut that nominally fulfill these criteria but can be excluded from the present project for the purposes of

simplicity. These exceptions to the above will be discussed in the following sections alongside the umlaut criteria themselves.

2.1.a Umlaut Target

One of the most important ingredients to the umlaut recipe is the vowel that undergoes this sound change, and so the reconstructed pre-umlaut form of each viable token must contain the short vowel *a as the sole nuclear vowel of a syllable. This definition of the target vowel crucially excludes short *a when it occurs as the first element in one of the two falling diphthongs *ai and *au that have been reconstructed for Proto-Germanic and Proto-West Germanic. The reason for this is that, even taking only the modern distribution of umlaut phenomena into consideration, it is clear that the mutation of *a by a following front high vowel or semivowel patterns very differently from that of both of these diphthongs. It may be that the shift from PGmc *ai, *au to OHG *ei*, *ou*, e.g.

leitendi (Otfrid V 1.4.10) ← *laidijand- ‘leading’

giloubenti (Otfrid V 1.6.6) ← *ga-laubijand- ‘believing,’

is historically a part of the height harmony rule that preceded primary umlaut. This change is also a first step towards the total monophthongization (to /e:/ and /o:/) that in Upper German is conditioned by the following consonant (e.g. OHG *lēra* ‘lore’ ← WGmc *lairu; *lōs* ‘loose, free, bereft’ ← *lausaz) but elsewhere operates unconditionally (e.g. Standard Netherlands Dutch *steen* ‘stone’ ← *stainaz; *oog* ‘eye’ ← *augō).⁶ Since the phonological aspect of this dissertation examines the blocking effect of intervening consonants, *ai does not fall within the scope of the present study. On the other hand, since it is already well-established that the *a* element in the *au diphthong does not behave under the same conditions of umlaut as short *a* by itself, but rather

⁶ Interestingly, some of the unconditionally monophthongizing dialects make a distinction between umlauted *ai → *ei* and non-umlauted *ai → *e(e)*; cf. Dutch *klein* ‘little’ ← *klainja-.

belongs to the set of later i-mutations classified as post-primary or secondary umlaut, words with historical *au also cannot be considered as tokens for this study.

On the other hand, *a when followed by either *j or *w in the onset of the following syllable is a perfectly legitimate candidate for primary umlaut. The former semivowel occurs between vowels very infrequently in Old High German and no tokens of this project's data set contain *j as an intervening consonant between umlaut target and trigger; however, *w occurs frequently in this position, e.g.:

freuudu (Otfrid V 2.6.57) ← *frawiþō- ‘joy (DAT SG)’

Furthermore, umlaut target short *a may be followed by the semivowel *w as the coda in its own syllable and not fall in with the diphthong *au → OHG *[ou] <ou>, provided that *ww is a geminate and therefore that the following syllable begins with the same semivowel.

freuen (Otfrid V 1.1.123) ← *frawwjēn ‘they may rejoice’

It is clear from the textual evidence that WGmc /aw.w/, which occurs only where the cluster *wj (as in PGmc *frawjana ‘to rejoice’) produces /wwj/ in compliance with another familiar sound change, remains /aw.w/ in OHG (or /ew.w/ if the nuclear vowel has undergone umlaut) such that *aw in the first syllable does not fall in with WGmc *au. This exceptional case of West Germanic /ww/ resulting from gemination by a following *j can be contrasted with the fate of earlier Germanic /ww/ (as in *hawwana ‘to hew, strike a blow’) which in West Germanic *does* feed into the *au diphthong, as in e.g. Otfrid V 1.23.59 *houuue* *[houwe] ← PGmc *hawwai ‘may hew.’

2.1.b Word-stress

It is not enough that the target vowel *a occur in a syllable before a trigger (*i(:) or *j) in order to be included in the scope of this study; the target vowel must also bear the primary or secondary stress within its word.

Primary stress refers to the tonic syllable of the word. The tonic syllable in native Germanic words falls on the initial syllable, with the exception of certain unstressed prefixes (*bi-, *fra-, *ga-, etc.). Secondary stress refers to the second element of a compound that would be the tonic syllable if that word existed independently of the compound. For example, we can analyze a compound word like *uuiluerbiic* *['wi:l,werbi:k] (Abrogans K 285.5) ← *'h^wīl: h^warb-īga- ‘voluble, restless’ as a composition of the noun *h^wīlō- ‘time’ and a theoretical adjective *h^warb-īga- constructed from the a-grade of the verb *h^werbaną ‘to turn.’ Even though the latter element is preceded in composition by an element carrying the primary word-stress, the syllable *h^warb- carries secondary stress and in this case exhibits umlaut of its nuclear vowel *a.

The purpose of this proviso is to exclude from this study tokens in which an apparently unumlautable *a vowel is *unstressed*, since in addition to being outside the framework of Germanic i-mutation as it is conceived in the literature, unstressed vowels in Old High German are as a rule of thumb captured with significantly less orthographical consistency than their counterparts bearing primary or secondary word-stress. Thus, in a word like PGmc *ga-sinþjan- ‘companion,’ we cannot consider the first-syllable vowel to be a potential umlaut target vowel because it is uncontroversially unstressed, meaning that we could not make a reliable claim about the presence or absence of umlaut based on whether <a> or <e> is written. (In fact, the OHG sources of this study overwhelmingly prefer either <a> or <i> for this vowel, depending—it seems—on the dialect.⁷) So, besides the fact that the relevant scholarly literature is already of the consensus

⁷ These graphemes could represent little more than attempts to render the schwa vowel /ə/, which as early as the Middle High German period is written as *e* with overwhelming regularity. The choice between <a> or <i> or another

that i-mutation most characteristically operates in stress-bearing syllables, we can conclusively disregard syllables with no stress in the present study since they cannot give us information about vowel quality to the necessary degree of reliability.

A further consequence of the limitation of this dissertation’s scope to syllables that bear enough stress reliably to express vowel quality is that one very frequent lexeme—namely, the conjunction *andi ‘and’—will also not be admitted to this data set, for the very reason that it shows up in the OHG sources with spellings that are not consistent with what we observe in other primary-umlaut environments. This discrepancy can most likely be accounted for by the word’s status as a low-information function word, which was therefore perhaps unstressed and underwent phonetic reduction, whereas the bread and butter of this investigation must be lexical words—nouns, verbs, adjectives, and adverbs—for which we do not observe and have no reason to expect such reduction.

2.1.c Umlaut Trigger

In addition to the presence of the target vowel short *a in a syllable bearing primary or secondary word-stress, a third condition must be met in order for umlaut to take place: the following syllable must contain an umlaut “trigger,” which may take the form of either the front high vowel *i(:) as the nuclear vowel, e.g.:

pezzirom (Abrogans K 188.9) ← *batizan- ‘better (DAT PL)’

steti (Abrogans K 182.14) ← *stadīz ‘places (NOM PL)’

or its semivocalic counterpart *j in the onset.

strenke (Abrogans K 177.15) ← *stranjōz ‘strong (NOM PL)’

grapheme for an unstressed short vowel, which is frequently consistent within individual OHG texts, could very well be a product of local orthographic practice.

It is the front and high features of these sounds to which Proto-Germanic *a partially assimilates in the phenomenon of primary umlaut.

In a handful of attested examples—all of them, at least within the scope of this dissertation’s corpus, from Otfrid’s *Evangelienbuch*—the syllable containing the umlaut trigger is in fact in a separate morphological word from that containing the trigger, e.g.:

uurf iz (Otfrid V 2.11.19) ← *warp it ‘threw (3SG) it’

meg iz (Otfrid V 5.1.43) ← *mag it ‘it may’

meg ih (Otfrid V 5.7.35) ← *mag ik ‘I can’

These instances can be explained by the fact that even though there is a rigid morphological separation between target and trigger here, the verb and following pronoun obviously form a tight-knit prosodic unit. A detailed account of the extended phonological word in Otfrid can be found in Somers Wicka (2009; cf. especially § 2.3).

So far, we have been using the West Germanic form (or otherwise the Proto-Germanic form, which in many places makes no appreciable difference for this purpose) as a reliably reconstructed pre-umlaut form to which we can refer. However, there is one circumstance in which, for the sake of this study, we will be a little more flexible with the requirement that the syllable containing the umlaut trigger directly follow the syllable containing the target vowel in the West Germanic reconstruction. The preterite optative marker in Proto-Germanic is *-ī-, which follows the tense-inflected verb stem (with ablaut gradation in strong verbs and with a dental suffix in weak verbs) and precedes the so-called “secondary” endings denoting person and number. Weak 1 verbs, for example, inflect as follows in Proto-Germanic:

1	*-id-ī-[Ø]
SG	
2	*-id-ī-z

	3	*-id-ī-[Ø]
	1	*-id-ī-m
PL	2	*-id-ī-þ
	3	*-id-ī-n

Note that the past-tense marker identifying the Weak 1 conjugational class as such, *-id-, itself contains *i and is therefore liable to trigger umlaut in a preceding vowel. Indeed, we observe umlauting on the basis of this vowel in preterite forms, both indicative and optative, that retain it, e.g.:

legita (Otfrid V 1.11.57) ← WGmc *lag-id-ā ‘he laid, made to lie (IND)’

zelita (Otfrid V 4.27.12) ← WGmc *tal-id-ā ‘I told (IND)’

gilegiti (Otfrid V 1.11.33) ← WGmc *-lag-id-ī ‘she might lay (OPT)’

zelitin (Otfrid V 3.12.4) ← WGmc *tal-id-ī-n ‘they might tell (OPT)’

So much for verbs with light stems like *lag- and *tal-, but an apparent irregularity arises here for Weak 1 verbs with heavy stems, the so-called “Rückumlaut” verbs that exhibit umlaut in the present tense (e.g., the infinitive: WGmc *drankjan, *namnjan → OHG *trenken*, *nemnen*) but whose *-i-/-j- has lost to syncope in past-tense forms. For example:

nantun (Otfrid V 1.17.37) ← WGmc *namn-id-un ‘they named (IND)’

irkanta (Otfrid V 3.2.35) ← WGmc *-kann-id-ā ‘he recognized (IND)’

The significance of this subset⁸ of Weak 1 verbs is that they do not exhibit umlauted tonic vowels because the syncope of short *i, which theoretically occurs only after a heavy (bimoraic)

⁸ The *Rückumlaut* verbs eventually assimilate many originally light-stem verbs—like *zalta* ‘told,’ which occurs alongside *zelita* in Otfrid and other sources and superficially looks as though it points to a heavy-stem origin like *tallidā rather than the actual *talidā. This analogical move follows from the superficial similarity between heavy-stem and originally weak-stem verbs in certain parts of the present-tense paradigm that is the result of the West Germanic gemination of consonants before *j, e.g. Proto-Germanic *þanjana ‘to extend’ vs. *kannjana ‘to know’ → *þannjan vs. *kannjan.

syllable, occurs prior to umlaut (even umlaut of short *a, which, according to the scholarly tradition that the present study follows, occurred at an earlier date than umlaut of other back vowels).⁹ This sequence of events implies that, in those Weak 1 verbs that undergo syncope of the conjugation-marking vowel *i (like *kannidā → *kanta*) or have been rebuilt on analogy to the natural *Rückumlaut* verbs (like *talidā → *zalta*), we are left with no good reason not to expect umlaut in the preterite optative with the *-ī- marker as the trigger vowel. While it just so happens that we do not find umlauting Weak 1 preterite optative forms in the sources of this study, it behooves us nonetheless to keep track of these syncopated forms, e.g.

scaftin (Otfrid 1.9.8) ← *skapidīn ‘they might create (OPT)’

nanti (Otfrid 1.9.10) ← *namnidī ‘he might name (OPT)’

as a special morphological category wherein the preterite-optative *-ī- itself does not occupy the position of the trigger in West Germanic but only enters it later on, after the syncope change but obviously before many of our Old High German source texts were written.

On the other hand, in direct opposition to this admission into our data of syncopated forms with preterite-optative *-ī-, there is another morphological delineation that, technically speaking, ought to promote umlaut (and regularly does so in Old Saxon, Old Norse, and Old English) and yet avoids umlauting so unilaterally in Old High German texts that the present study will not even regard the pertinent tokens as relevant data. Within the i-stem nouns, whose paradigm is permeated by umlaut-triggering *i, we observe in the OHG sources applicable to this study that the nominative and accusative singular of i-stem nouns (which are identical in West

⁹ This loss of *i following a heavy syllable can be tied to the general rule of High Vowel Deletion that affects all of West Germanic. Cf. therefore also loss of the i-stem nom. sg. ending WGmc *gast-i → *gast* ‘guest’ and the zero-stem nom. and acc. plural ending of neuter a-stem nouns, e.g. WGmc *word-u → *uuort* ‘words.’ Although parallel changes happened in Old English, i-mutation was already complete there by the time the High Vowel Deletion rule became operational, e.g. WGmc *brūd-i ‘bride’ → *brȳd-i → OE *brȳd* (contrast OHG *brūt* → modern *Braut*).

Germanic, following the loss of word-final *-z in the former and the merger of nasalized short *i with oral *i in the latter) have in every single instance lost this final short *-i in a general apocope rule. Here, for example, is the paradigm for *stat* ‘place’ (modern German *Stadt*) spanning first the apocope change (with loss of a vowel-length distinction in word-final vowels) and then umlaut of short *a:

		West Germanic	pre-OHG	OHG
SG	NOM/ACC	*stadi	*stad	<i>stat</i> Otfrid V 2.14.60
	GEN/DAT/INST	*stadī	*stadi	<i>steti</i> Otfrid V 1.11.25
PL	NOM/ACC	*stadī ¹⁰	*stadi	<i>steti</i> Otfrid V 2.4.2
	GEN	*stadjō	*stadjo	<i>steteo</i> Abrogans Pa 129f
	DAT/INST	*stadim	*stadim	<i>stetin</i> Otfrid V 3.2.17

Noteworthy here is that the apocope of short *-i that ultimately disenfranchises the nominative/accusative-singular i-stem nouns from undergoing umlaut (at least umlaut as triggered by the final *-i vowel for which the inflectional class is named) is found in both heavy- and light-stem nouns in Old High German, with the latter being an analogical extension from the former.¹¹ The i-stems can therefore be compared to the OHG feminine *ō*-stem nouns, where a contrary leveling has taken place, with a high vowel that was apocopated in the heavy stems (like *lêra* ‘teaching, lore,’ below) replaced by a different vowel on analogy to the accusative singular

¹⁰ Ringe & Taylor 2014, p. 115, posit accusative *stadī ← PGmc *stadinz that still contrasts with the nominative *stadī ← PGmc *stadīz, but such a historical distinction would not have remained relevant into the umlaut period.

¹¹ “Die *i*-Stämme mit kurzer Stammsilbe sollten eigentlich, wie im As. (und Ae.) im N.Sg. den Themavokal *i* beibehalten. Sie haben aber im Ahd. im Anschluss an die Langsilbigen das *i* verloren” [The *i*-stems with short stem syllables should actually retain the theme vowel *i* in the nom. sg., as in Old Saxon and Old English. However, in OHG they have lost the *i* by association with the heavy-stems.] (Braune 2004, 15th ed., § 217).

ending, and eventually extended to light-stem nouns (like *geba* ‘gift’; cf. nominative singular WGmc *gebu).¹²

Gmc	WGmc	High Vowel Deletion	OHG
*laizō (← *-ā)	*lairu	*lair	<i>lêra</i>
*laizō̄ (← *-ām)	*lairā	*laira	<i>lêra</i>

Even though the apocope rule deleting final *-i is analogical in the light i-stem nouns,¹³ the fact remains that we cannot expect the attested nominative and accusative singular forms to tell us anything useful about umlaut. For that reason, these particular forms are not taken as tokens in this study (though the abundant i-stem nouns from other parts of the paradigm are, of course, welcome and useful).

From a general Germanic perspective, the analogical repair of the OHG i- and ō-declensions in the wake of weight-based deletion of high vowels *i and *u are an idiosyncrasy of that language¹⁴ (even though High Vowel Deletion itself is well-attested across West Germanic). Looking at the i-declension in particular, we find a very different situation even in Old Saxon, where an identical prosodically motivated deletion of final *-i in the heavy-stem nominative/accusative singular was never repaired, so that the declension features heavy forms with no final *-i and, therefore, no umlaut (like *gast* ‘guest’) as well as light forms preserving the final vowel which triggers umlaut of *a (like *stedi* ‘place’). Modern German *Stätte* ‘place,’ a doublet of *Stadt* ‘city,’ reflects this dialectal variant of WGmc *stadi.

¹² Forms exhibiting the expected zero-ending in OHG are attested: see Braune (2004, 15th ed., § 207).

¹³ Forms exhibiting the expected ending -i in OHG are attested: see Braune (2004, 15th ed., § 217, 220).

¹⁴ A similar analogical development in OHG (which, unlike the leveling of the aforementioned parts of the i- and ō-stem paradigms, is also shown in OS and OE) is the restoration of the instrumental singular ending WGmc *-u in the a-declension which must have been deleted after heavy-stem nouns. Another example, also with WGmc *-u, is the 1SG present indicative ending of strong verbs that etymologically should be lost after a heavy stem like that of WGmc *drinku ‘I drink.’

Old English, like Old Saxon, undergoes the apocope rule and does not repair the i-stem paradigm by extending the rule to light-stem nouns; unlike OS, however, OE has already completed umlaut—not just of short *a but of *all* non-front vowels—by the time this vowel-deletion rule operates. Therefore, in the domain of what we call “primary umlaut,” we have not only *stede* ‘place,’ with final *-i still orthographically present (albeit in a reduced form) but also *benc* ‘bench’ exhibiting umlaut. Likewise, among other umlauted vowels, we observe not only the light-stem *hyge* ‘mind’ but also *wyrd* ‘destiny,’ both of which exhibit umlaut. Indeed, we find parallel examples with all short vowels, long vowels, and diphthongs.

North Germanic presents a more enigmatic situation. Like Old High German, the marker of the i-declension in Old Norse is no longer present in the nominative and accusative singular forms (though nominative *-z is continued as *-r*); but, in a reversal of Old Saxon umlaut, it is the heavy stems and not the light stems that exhibit the results of i-mutation in Old Norse. So, *stadiz ‘place’ is reflected as *staðr*, preserving short *a, but *gastiz ‘guest’ is mutated to *gestr*. Clearly there are prosodic and phonological forces at work here, but scholars have not had an easy time explaining this state of things. See Iverson & Salmons (2004) for one approach to this problem.

2.1.d A Note on Terminology

I have hitherto been using the term “primary umlaut” more or less interchangeably with “umlaut of Proto-Germanic short *a” which is, strictly speaking, not in perfect conformity with scholarly practice. In this section I have outlined the three historical-phonological criteria for counting a token as a potential exhibitor of “primary umlaut” and therefore within the scope of the present study (with the exception made for certain parts of the i-stem paradigm and with an additional allowance made for the preterite-optative of heavy-stem Weak 1 verbs). However, the

scholarly literature often makes the distinction between the “primary” umlaut of $*a \rightarrow e$ and the “secondary” umlaut of $*a \rightarrow \text{æ}$ (or, a vowel that is sporadically written as <ae> or <ǣ> in Middle High German texts), with the latter change occurring when a consonant cluster whose first element is $*h$ intervenes between umlaut target and umlaut trigger; e.g. MHG *mäh̄tec* (or *maht-*, *meht-*) ‘powerful’ ← $*maht̄iga-$ (cf. *mahtig* Otfrid V 5.9.25).

Despite the distinct output of umlauted $*a$ before $*hC$ ($*h$ followed by some other consonant), I have said that the scope of this dissertation is any kind of i-mutation of Proto-Germanic short $*a$, and am therefore admitting tokens like *mahtig* whose umlaut—whether successful or not—would operate across a traditional “blocking environment” and therefore put them outside the true domain of “primary umlaut.” The rationale for this follows from the hypothesis which this dissertation has been designed to test, namely, that the historical morphophonological environment—including, of course, the consonant or consonant cluster intervening between target vowel and trigger vowel—plays some role in the success rate of umlaut of short $*a$. Since one of the aims of this project is to investigate whether short $*a$ undergoes i-mutation earlier in some environments than in others, it is certainly also worth keeping track of those environments across which umlaut has become a qualitatively different sound change. The $*a \rightarrow \text{æ}$ change across $*hC$ is a crucial final (or post-final) stage in the timeline of “primary” umlaut that this dissertation is attempting to draw.

2.2 Data Collected for Tokens

Now that I have defined what sort of tokens fall within the scope of this study, it remains to go into detail on the particular data that I collect for each token. All data were managed in a Microsoft Excel spreadsheet and then analyzed using the R programming language. Over the

course of this section, I will go to some depth in elucidating the purpose that each of the following metrics will serve:

- a. West Germanic reconstruction of the token
- b. Whether target vowel is umlauted orthographically (TRUE or FALSE)
- c. Whether trigger vowel or semivowel is present orthographically (TRUE or FALSE)
- d. Consonant(s) intervening between target vowel and trigger vowel
- e. Morphological relationship between umlaut trigger to umlaut target
- f. Miscellaneous grammatical information

The values for these metrics in a particular token are not always obtained straightforwardly or uncontroversially. For instance: If the trigger vowel is present orthographically but in a phonetically reduced form, such as in

ente ‘end’ (Otfrid V 5.12.87) ← *andja-,

should the orthographic presence of the trigger be denoted as TRUE or FALSE? Likewise, if the intervening consonants have been altered significantly by the Second Consonant Shift, as in

nezzin ‘nets’ (Otfrid V 5.13.10) ← *nattja-,

how should these be recorded in the data? In the following paragraphs I explore questions like these and lay out the general principles that I have followed in order to obtain data that are categorized as usefully as possible for investigating the underlying hypotheses of this dissertation.

2.2.a West Germanic Reconstruction of Token

Given the fact that continental West Germanic existed as a dialect continuum in the 8th and 9th centuries, with what we today call “Old High German” consisting a large group of the southern- and easternmost of these dialects (or perhaps a pluricentric language, at best), there is

no straightforward way of identifying a consistent form of any particular lexeme from one of these dialects. In the past, some OHG reference works have used the dialect of the *Tatian* Gospel Harmony (and an idealized interpretation of *Tatian*'s orthography) for such a purpose. This dissertation will largely forego such artificial and idealized forms in favor of reconstructed West Germanic forms. I have already dealt with such reconstructions at length in the first part of this chapter, invoking them as the basis of determining whether a given token in the source material satisfies the three criteria for primary umlaut. A reconstructed West Germanic form for each token thus performs two important functions: on the one hand, it serves as a reference to a particular lexeme or inflected form of a lexeme that does not needlessly prioritize a particular variety of OHG; and on the other hand, it offers a convenient and minimally archaic picture of the pre-umlaut state for a given lexeme or inflected form. (The fact that continental West Germanic was—and continues to be—a dialect continuum implies that there was no such “Proto-Old High German” that would have been a more recent common ancestor to these dialects in question than Proto-West Germanic itself.)

The need to consult a reconstruction that is equally valid for any variety of OHG is especially obvious when we consider the kind of orthographic and also phonological diversity that manifests itself in these texts. This is particularly clear when contrasting the Abrogans Pa and Abrogans K manuscripts, two German-Latin glossaries that belong to the same manuscript family and frequently gloss the same Latin word with a morphologically identical, but phonologically very different, term, e.g.:

ardenit (Abrogans Pa 126f) ← *ur-panida-

irthenit (Abrogans K 48.17) ← *ur-panida-,

which both mean ‘extended’—the theoretical modern German equivalent would be *erdehnt*—and gloss Latin *suspendens*.¹⁵ These are, for all intents and purposes, the same word (they even exhibit umlaut and preserve the trigger vowel orthographically as <i>), but to cite them as instances of *ardennen* in Ab Pa and *irthennen* in Ab K would obscure this fact. Not only the dialects of Abrogans Pa and K but all OHG varieties in the source materials of this dissertation are close enough that it makes more sense to refer (in this example) to both of these as instances of the West Germanic Weak 1 past participle *-þanida-.

The reconstructed West Germanic form that accompanies each token in the data set must go into enough morphological detail (i.e. be inflected) to show unambiguously the relevant pre-umlaut features of the word. To continue using the above example, it is far more fruitful to note that *ardenit* and *irthenit* continue West Germanic *-þanida- than it would be to merely have them as inflected instances of the infinitive *þannjan, among other things because this infinitival form has a geminated stem consonant *nn which is not geminated in the OHG participle. The reconstruction ought thus to tell us something about the pre-umlaut phonological environment. (Although difficulties can still arise: see **2.2.d.**)

That said, it is often the case that a maximally complete degree of morphological complexity in the reconstruction is quite unnecessary (besides the fact that some parts of West Germanic morphology are more confidently reconstructed than others). Using again the example of *ardenit* and *irthenit* ← *þanida-, it makes absolutely no difference for the sake of i-mutation of the tonic vowel whether this actually represents masculine nominative singular *þanid (← PGmc *þanidaz), or neuter singular (PGmc *þanida), or anything else. Since Germanic past participles are historically (and behave like) a-stem nouns, we can cut our reference forms off at

¹⁵ Glossing active participles with passive participles in the Abrogans manuscripts is not uncommon; presumably the scribe believed the semantics justified this alteration.

the stem level (with *-a-* denoting the declension) and not concern ourselves with further inflection. All possible grammatical information will be noted (as expanded upon in 2.2.f), but will not necessarily be visible in the West Germanic reconstruction as I record it. It is most prudent for a study on umlaut to refer to all inflected forms of the participle **panida-* with a common term.

2.2.b Whether Target Vowel is Umlauted Orthographically

The most fundamental question we can ask about a token that, by virtue of its historical shape, could in theory exhibit umlaut of short **a* is: do we actually observe umlaut for this token? While the real-world development and spread of *i*-mutation were certainly “messy” (as is the case for any sound change), this metric, as it is tracked for the present project, is a Boolean one that has only two possible values: TRUE and FALSE. After all, orthographic vowels are not waveforms; the historical nature of the data in question prevents us from gaining any impression of reality that is more nuanced than this.

First and foremost: any token will be assigned the value FALSE for this metric which uses the grapheme <*a*> to write the potentially umlauted vowel; e.g.:

arin ← **arinō* ‘altars’ (Abrogans Pa 129a)

Any other means of writing umlautable short **a* receive the value TRUE for this metric¹⁶. By far the most common grapheme used to write umlauted short **a* is <*e*>:

kenkit ← **gangid* ‘goes’ (Abrogans K 173.3).

However, <*ē*>, <*æ*>, <*ae*>, and <*ei*> are also attested sporadically:

hęcgepugi ‘crossway, sideway (DAT SG)’ (Abrogans K 265.14) ← **aggja-bugi-*

¹⁶ Unless, of course, something like <*o*> or <*u*>; but these do not occur in the data set.

irstaentit ‘arises’ (Otfrid 1.15.34) ← *-standid

*aengil*¹⁷ ‘angel’ (Isidor 51) ← *angila-

feiliso ‘stones (GEN PL)’ (Abrogans K 75.2) ← *falisa-

The reasons for which particular scribes elected to use one of these orthographic alternatives to <e> to denote the mutated vowel instead of <e> itself are difficult to determine. What is important is that no manuscript in the corpus of the study uses any of the above graphemes *regularly* to distinguish umlauted *e* ← *a from inherited *e* ← *e, putting any in-depth discussion of these idiosyncratic writings outside the main scope of this dissertation.

2.2.c Whether Trigger Vowel Or Semivowel Is Present Orthographically

A second Boolean data point to be recorded for each umlautable token is whether the umlaut trigger—the OHG reflex of West Germanic *i(:) or *j—is captured in the orthography. Identifying whether this metric is TRUE or FALSE is as straightforward as it was for the umlaut target vowel: a token using the grapheme <i> to spell out the reflex of *i(:) or *j in the post-tonic syllable, or using <e> before another vowel grapheme (as a scribal approximation of the semivowel /j/), is assigned the value TRUE. Any other vowel grapheme in this place—or, of course, the absence of any vowel grapheme at all—receives the value FALSE.

2.2.c.1 *i(:) Trigger

Historical short *i is encountered frequently in certain parts of the Strong and Weak 1 verbal paradigms, e.g.:

pifallit (Abrogans Pa 127e) ‘falls’ ← *-fallid

aruuagit (Abrogans K 24.2) ‘stirred, moved’ ← *-wagida-

¹⁷ The Old High German *Isidor* unexpectedly has apparently de-umlauted *angil* for ‘angel’ throughout, with this single attestation of umlauted *aengil* towards the beginning. It is apparent from other patterns in the same text that the anomalous *angil* spelling—and perhaps its pronunciation, too—is due to influence of Latin *angelus* and should not imply that this lexeme represents a meaningful phonological irregularity in the history of the *Isidor* dialect.

In those places where it survives into OHG, it is usually written as <i>, which merits the value TRUE for this metric.

However, there are also many instances (especially in the Weak 1 preterite and participle) in which historical short *i is lost to syncope, prompting a FALSE value for this metric, e.g.:

sankta (Otfrid 2.3.54) ‘it sank, made to sink’ ← *sank(w)idā

skanktun (Otfrid 2.8.41) ‘they served [a drink]’ ← *skankidun

nanti (Otfrid 1.9.10) ‘he might name (OPT)’ ← *namnidī

sand (Otfrid 2.4.16) ‘sent (NOM SG)’ ← *sandida-

farsantem (Abrogans K 17.1) ‘sent away (DAT PL)’ ← *-sandida-

This is, of course, the *Rückumlaut* subgroup of Weak 1 verbs; their present stems are good candidates for umlaut of the tonic vowel, but their past-tense stems do not (cf. *nennen~nannte* and *senden~sandte* even in modern German, and MHG *senken~sancte*). Since they lack orthographic evidence of an intermediate vowel in our OHG sources, they are assigned the value FALSE for this metric. Class 1 Weak verbs with light stems also frequently occur with the stem vowel *-i- deleted on analogy to heavy-stem verbs that have lost it naturally.¹⁸

kisaztos (Abrogans K 239.11) ‘you established’ ← *ga-satidēs

zalta (Otfrid 2.6.17) ‘s/he told’ ← *talidā

Such verbs therefore secondarily join the *Rückumlaut* group (cf. MHG *setzen~satzte* and *zeln~zalte*).

Historical long *ī is not regularly lost due to syncope or apocope in any OHG dialect.

strengi (Abrogans Pa 131.2.c) ← *strangī (← PGmc *strangijaz)

mekis (Abrogans K 69.5) ‘you might (PRET OPT)’ ← *magīs

¹⁸ This could occur in the opposite direction, too; e.g. *nemnida* ‘named (SG)’ (Isidor 37.333), with *-i- retained after a heavy stem.

dernico (Abrogans K 59.11) ‘secretly’ ← *darnīgō

ferti (Otfrid 2.5.25) ‘journey (DAT SG)’ ← *fardī

kreftiger (Otfrid 3.2.18) ‘powerful (MASC NOM SG)’ ← *kraftīga-

2.2.c.2 *j Trigger

The common story is that *j is lost in the postconsonantal environment in all old West Germanic languages except Old Saxon, which regularly preserves it (cf. OHG (Otfrid) *zellen* and Old English *tellan* but OS *tellian* ← WGmc *talljan). This may work as a rule of thumb but the facts—at least in the Old High German sources—are more complicated. It is true that we can observe the loss of *j in this position in many instances, e.g.:

zellu (Otfrid 3.6.1) ‘I tell’ ← *tallju

nennent (Otfrid 3.6.6) ‘they name’ ← *namnjand

arlasken (Abrogans Pa 126b) ‘to extinguish’ ← *-laskjan

ende (Abrogans K 11.12) ‘end (DAT SG)’ ← *andjē

archannenti (Abrogans Pa 130b) ‘knowing, expert’ ← *-kannjand-

But tokens that preserve postconsonantal *j are in fact easy to find.

In those instances when the semivowel is preserved in the postconsonantal environment and manifested in the orthography, it is frequently written with <i>:

piuuerfio (Abrogans K 91.8) ‘I cause to turn around’ ← *bi-warbju

biuuerie (Otfrid 4.7.60) ‘may oppose’ ← *bi-warjē

Following the methodology of the present study, such tokens are deemed to display the umlaut trigger *j orthographically and as such are assigned a TRUE value for the trigger-presence data point.

However, the reflex of postconsonantal *j—whatever its precise phonological or phonetic status in these cases—also frequently takes the form <e> in the orthography:

alpeon (Abrogans Pa 131.2.c) ‘Alps (DAT PL)’ ← *albjōm

This is particularly salient in the jan-stem nouns (n-stem (“weak”) nouns that additionally have *j before the full-grade vowel of the stem suffix):

recheo (Abrogans K 107.13) ‘warrior, exile (cf. MHG *recke*)’ ← *wrakkjō

pikenkeo (Abrogans K 107.18) ‘curator, caretaker’ ← *bi-gangjō

arbeo (Abrogans Pa 131.b) ‘heir’ ← *arbjō

Given such a writing, it is difficult to tell what exactly we are to conclude regarding the phonetic and phonological nature of the semivowel as it functioned in the dialect of the scribe at hand.

This <e> may represent nothing more than a variant of the spelling with <i> (as in, e.g. *piuuerfio* above), where we can more confidently ascribe the phonetics of the semivowel [j] to this segment and thereby classify it as a potential umlaut trigger. At the same time, there is no guarantee that this spelling of postconsonantal [j] with <e> does not actually indicate some kind of *phonetically reduced* trigger, weakened to the point that it may no longer operate as a successful vowel mutator.

In response to this ambiguity, the tack elected for the purposes of the present dissertation is to assume that orthographic <e> *does* reflect the umlaut-triggering semivowel [j] *if* it occurs in sequence with another orthographic vowel, as <eo> in *arbeo* above (but not the <e> in *nennent* above). The logic underlying this decision is that it is preferable to erroneously assign the value TRUE to the few instances of orthographic <e> that may represent a weakened version of the umlaut-causing semivowel [j] than to erroneously assign the value FALSE to instances of <e> that might very well represent the trigger [j]. The occurrence of umlaut in conjunction with trigger

loss (a FALSE value for this metric) is a more surprising result than umlaut occurring alongside a still-present trigger (a TRUE value), and so to minimize the likelihood of false-positives in the tally of post-trigger-loss umlaut, we should set a high standard for what actually constitutes orthographic evidence of trigger loss.

2.2.d Consonant(s) Intervening Between Target Vowel and Trigger Vowel

The most significant bifurcation in the history of umlaut of short *a, as well as the earliest to be described in the scholarly literature, is that between *a → e in most environments (“primary umlaut”) and *a → æ (“secondary umlaut”) when the intervening consonant cluster takes the form *h+consonant or *l+consonant.

More recent scholarship (Boutillier, Howell, Iverson, & Salmons forthcoming) has suggested that primary umlaut itself, the mutation of *a → e in environments besides *hC and *lC, may not have been a monolithic shift. It was probably more restricted in its earlier stages with regard to what kind of consonantal environments facilitated or inhibited vowel mutation when occurring between target and trigger, and over the course of time broadened its scope to include different intervening consonants and clusters, eventually even h+C and l+C (even if the quality of the output vowel had changed by this time). For this reason, this project makes careful note of what consonants intervene between umlaut trigger and umlaut target, in accordance with the hypothesis that earlier texts will show a significant correlation between occurrence of umlaut and certain consonantal environments (besides *hC and *lC alone).

For the sake of consistency across texts and across the temporal and geographic domain of Old High German, the consonantal environment intervening between umlaut target and umlaut trigger are taken specifically from the reconstructed West Germanic form (as outlined in **2.2.a**), regardless of the grapheme(s) used in the text or the consonant expected given the text’s

dialectal origin. For example, the following are various attested forms of the infinitive of West Germanic *(ga-)laggjan ‘to put down, put forth’:

kalacken (Abrogans Pa 130c) ← *ga-laggjan

kileken (Abrogans K 112.2) ← *ga-laggjan

leggen (Otfrid 4.35.8) ← *laggjan

While it may very well be true that West Germanic *g has been devoiced to *[k] in the dialects of the two Abrogans manuscripts, which we can understand as a result of the Second Consonant Shift, which in southern dialects generally extends to labial and velar consonants as well as coronal consonants. In the analyses of the data presented by individual texts themselves, I will take into consideration—to as great a degree as is possible—the fact that many of these intervening consonants participated in this important chain shift between the stage represented by the West Germanic reconstructed and the attested Old High German. These considerations will be made on a dialect-by-dialect basis. But in the data-gathering stage of this project, I drew the intervening consonants directly from the reconstructed form for the sake of preserving the ability to compare these across dialects that have undergone the Second Consonant Shift to different degrees. So, in all three of the above examples, I have written <gg>—for West Germanic *gg, following the gemination of this consonant after Proto-Germanic *lagjana— as the consonant cluster intervening between target and trigger, as opposed to orthographic <ck> or <k>, as used by the Abrogans scribes, or <kk> to better approximate the post-Second Consonant Shift geminate consonant.

The purpose of this metric is to test the hypothesis that umlaut of short *a began in certain phonological environments and then spread to others. It has been well-established already that the cluster *hC as well as *lC and, probably, *rC functioned as a “blocking” environment

that delayed i-mutation of short *a. However, the aim of this study is to show that the stage leading up to this “secondary” umlaut was also not a monolithic process. In **1** I restated the suggestion that “primary umlaut” historically represents an extension of the West Germanic Vowel Harmony rule, which itself can be viewed as an extension of the raising of pre-PGmc *e → *i before a coda nasal consonant, e.g.:

early Proto-Gmc *bendanan → *bindanaꝥ ‘to tie, bind’

but

early Proto-Gmc *werþanan → *werþanaꝥ ‘to turn, become.’

Intervening consonants even play a crucial role in the West Germanic harmony rule itself, with coda nasals blocking the lowering of *u → *o in the participle of some Class 3 Strong verbs

Gmc *bundana- → WGmc *bundan ‘having been bound’ (from *bindanaꝥ)

that otherwise affects this and other conjugational classes:

Gmc *wurdana- → WGmc *wordan ‘having become’ (from *werþanaꝥ),

thereby triggering a fundamental split in the Class 3 Strong verbs. It is not unlikely that coda consonants such as nasals might have played a similar role in the earliest stages of i-mutation. A meaningful finding would be that orthographic presence or absence of umlaut (see **2.2.b**) correlates with particular classes of consonants or consonant clusters—labials or nasals, singleton consonants or geminates—in this metric.

2.2.e Morphological Relationship of Umlaut Trigger to Umlaut Target

We have seen in **2.1.b** that the umlaut target (short *a) must occur in a syllable with primary or secondary word-stress in order to be a candidate for umlauting. When we take this point

- (1) umlaut target is in syllable with word-stress

together with the facts that

(2) Germanic has fixed first-syllable stress (excepting certain prefixes such as *bi-, *ga-, etc.);

(3) Germanic morphology branches rightwards (in other words, conjugation, declension, and derivation are effected through suffixes and not prefixes);

it becomes the case almost universally that the umlaut trigger is the nuclear vowel of the first (or only) syllable of the *word root*.

The umlaut trigger *i(:) or *j, then, finds its place somewhere later in the word—perhaps in the second syllable of a disyllabic root, but more likely in something that is synchronically an inflectional or derivational affix, e.g.:

Gmc	*far-	i-		di	→ <i>ferit</i> (Otfrid 5.14.10)
	go	[conjugational marker]		3SG	
Gmc	*and-	ij-		ō	→ [<i>worolt</i>]endi (Otfrid 5.16.20)
	end	[ja-stem marker]		NEUT.PL	
Gmc	*hard-	ir-		ō	→ <i>hardiro</i> (Abrogans K 7.12)
	hard	[comparative marker]		MASC.NOM.SG.DEF	
Gmc	*-kraft-	īg-		az	→ <i>khacrefdic</i> (Abrogans K 147.1)
	power	[adjectivizing suffix]		MASC.NOM.SG	

What is noteworthy about this diversity of morphological environments in which the umlaut-triggering close-front vowel or semivowel may occur is that, depending on the morphological category that contains the trigger, the trigger may be present in a greater or lesser part of the conjugational or declensional paradigm. This is relevant when we consider the fact that not only

phonological factors but also intraparadigmatic analogy (leveling) may be playing a role in the distribution of orthographic umlaut as attested in the grammars of our source texts.

For example, in a word like

Gmc *falīs- as → *felises* (Abrogans 44.1),
stone MASC.GEN.SG

in which the umlaut trigger *i appears in the noun root *falīs-/*faliz- itself, there are zero parts of the noun paradigm in which we do not expect umlaut. The trigger is not in a suffix that marks case or number, but originates in the root along with the target vowel *a so that, even historically speaking, the two belong to the same morpheme. Insofar as we can trust the orthography, then, whether we find *felises* or **falises* is entirely determined by phonological factors. There is really no conceivable way that <e> in *felises* represents analogy to something else rather than the output of the umlaut rule. Likewise, if the text had instead given us **falises* with <a>, it would be difficult to make the claim that the word *was* initially umlauted but then un-umlauted on analogy to something else; all parts of the paradigm of Proto-Germanic *falīsa- offer an identical phonological environment as regards umlaut.

We encounter a similar ubiquity of the trigger in inflectional classes that are classified by the infix *i or *j: namely, the ja- and jō-stem nouns (as well as their n-stem counterparts, what I am calling the jan- and jōn-stems) and the Class 1 Weak verbs. Nouns and verbs belonging to these categories contain the umlaut trigger *j throughout their paradigm in West Germanic. (An exception is the heavy-stem verbs which can undergo syncope of the conjugation-marker *i in the preterite tense and participle.) This in theory means that the entire paradigm undergoes umlaut at once, with no possibility afterwards for a fractionally umlauted paradigm to correct

itself through leveling in one direction or the other. Looking specifically at a neuter ja-stem noun like

Gmc *wabja → WGmc *wabbja → *uuappi* ‘fabric, web’ (Abrogans K 31.10),

we can observe when presented with its full inflectional paradigm that there are no places where the basic criteria for umlaut laid out in 2.1 are not fulfilled:

Proto-Germanic paradigm for *wabja- ‘web’:

	SG		PL
NOM/ACC	*wabja		*wabjō
GEN	*wabjas		*wabjō̅
DAT	*wabjai		*wabjamaz
INST	*wabjō		*wabjamiz

If the sources have this word without orthographic umlaut, then, as in the instance cited above, we may be confident to a high degree that the reasons for this lie in the phonological environment rather than in any intraparadigmatic analogy that has taken place.

This ubiquity of the trigger is not the case for other inflectional classes, whose paradigms may exhibit the potential for umlaut only to a fractional degree. Already in 2.1.c we have seen that the apocope of final short *i in a stage prior to the Old High German period (and, apparently, prior to the period in which umlaut became operational) has left us with an i-stem noun paradigm that, for all intents and purposes, cannot exhibit umlaut in the nominative and accusative singular. In the source texts, other parts of the i-stem paradigm usually undergo umlaut reliably, e.g.:

scefti ‘shafts (NOM PL)’ (Abrogans K 125.7) ← WGmc *skaftī

esti ‘branches (NOM PL)’ (Abrogans K 130.17) ← *astī

spenstin ‘temptations, attractions (DAT PL)’ (Otfrid 4.37.27) ← *spanstim

uuicsteti ‘battlefield (DAT SG)’ (Muspilli 46a) ← *-stadī

hensti ‘grace (GEN SG)’ (MH 3.3.c) ← *anstī.

However, due to the fact that these all have unumlauted nominative/accusative-singular forms, when we do encounter a declined i-stem form that does *not* exhibit umlaut, such as

stati ‘place (DAT SG)’ (Abrogans K 117.1) ← WGmc *stadī

asti ‘branches (NOM PL)’ (Abrogans Pa 131b) ← *astī,

it is no longer a trivial matter to say whether or not leveling from the nominative singular (*stat* and *ast* here) has played a role.

Strong Class 6 and 7 verbs conjugated in the present tense offer a parallel dilemma. Since the Germanic strong verb present paradigm continues the root-thematic verb class of Proto-Indo-European, it becomes the case after unstressed *e → *i in Proto-Germanic that only the 2SG and 3SG of present-tense indicative strong verbs exhibit a potentially umlauting environment:

Historical paradigm of Strong Class 6 verb PGmc *faranaǵ ‘to go’:

		PIE	Gmc	WGmc
SG	1	*-oH	*-ō	*faru
	2	*-e-si	*-i-zi	*faris
	3	*-e-ti	*-i-di	*farid (-þ ¹⁹)
PL	1	*-o-mos	*-a-maz	*faram
	2	*-e-te	*-i-di	*farid → *farad ²⁰

¹⁹ The 3SG ending *-þ and the 3PL ending in *-nþ are borrowed from the weak verbs, in which the stress on the stem extension prevented Verner’s Law from causing *þ → *d here as in the strong verbs.

²⁰ Although some older Alemannic texts reflect the historical ending *-id for the 2PL, Franconian and Bavarian show *-et* and *-at*, apparently exhibiting a leveling within the plural number of the vowel of 1PL *-am and 3PL *-and. This leveling anticipates the situation found in modern standard German. As Braune (2004) points out, “Die Formen auf *-it* ... sind auch insofern bemerkenswert, als sie den Vokal der Stammsilbe entsprechend verändern und demnach

	3	*-o-nti	*-a-ndi	*farand (-anþ)
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This fractioning of the paradigm in terms of ability to undergo umlaut limits the degree to which we expect to find umlauting forms in the 2SG and 3SG present indicative of such verbs.

There are lexemes that have umlautable forms in even more remote parts of their paradigm than this. We can consider monosyllabic adjectives with nuclear vowel *a that have comparative and superlative forms in *-iz- → *-ir- and *-ist- respectively, e.g.:

altiom ‘older (DAT PL)’ (Abrogans Pa 128f) ← WGmc *ald-ir-um.

In this particular example, which does not exhibit orthographic umlaut, we find not only one of the traditional “blocking environments” (with coda */l/) between umlaut target and trigger, but also that the trigger *i is in the comparative suffix WGmc *-ir-. Even if the phonological environment were more facilitative of umlaut in this word, it would still be well within the realm of possibility that the absence of orthographic umlaut points to an analogical un-umlauting on the basis of the non-comparative form of the word, exactly as modern English *older* has done, replacing i-mutated *elder*. This interests us because, if umlauting or non-umlauting correlates significantly with what kind of morpheme the umlaut trigger arises in, this would strongly indicate that i-mutation of short *a, where it does occur, has been internalized in the grammar of a particular scribe (i.e. become “grammaticalized”) and is no longer a merely phonologically conditioned phenomenon.²¹

ganz zur 3.Sg. stimmen: *quidit*, *gasiht* (statt *quëdet*, *gasëhet*), und mit Umlaut *ferit* (statt *faret*)” (§308). Since the source texts for the present study do not exhibit any of the forms reflecting *-id, I am considering the pre-umlaut viz. the West Germanic ending to be *-ad for all intents and purposes. Weak 1 verbs in those same dialects similarly have 2PL forms that reflect *-jaþ, which has obviously replaced inherited *-īþ (after heavy stems, e.g. PGmc *dōmīþ ‘you judge’ ← *-eyéte) and *-īþ (after light stems, e.g. PGmc *lagīþ ‘you lay, cause to lie’ ← *-yéte) on the model of 1PL *-jam and 3PL *-janþ.

²¹ An example of analogical leveling of the output of (post-primary) umlaut at a later date is the state of the *Rückumlaut* class of Weak 1 verbs in modern standard German. Whereas in Middle High German we find infinitive and preterite pairs like *wānen~wānte* (← WGmc *wānidā) ‘to hope, believe,’ *hāren~hōrte* (← WGmc *hauridā) ‘to hear,’ *hūeten~huote* (← WGmc *hōdidā) ‘to take care of,’ in which the preterite shows us the expected post-

The *null hypothesis* here is that grammaticalization of umlaut has not yet occurred in the dialects of the source texts. This would be supported by the absence of a significant correlation between success of umlaut and the morphological relationship between the trigger and target phonemes, and would imply that umlaut is still phonetically or phonologically conditioned. On the other hand, if the texts reveal a significant correlation between success of umlaut and a closer morphological proximity of trigger to target (i.e. the highest degree of orthographic umlaut in words where the trigger and target are in the same morpheme, followed by a lesser degree of umlaut when the trigger appears in a stem extension or conjugational/declensional ending, and the lowest success rate of umlaut when the trigger is part of a derivational suffix), we can confidently surmise that the mutated vowel has become grammaticalized, i.e. a mutable feature of the grammar itself and no longer a product of the phonological environment.²²

syncope non-umlauted form, the modern language has *wähnen~wähnte*, *hören~hörte*, and *hüten~hütete* with innovated umlauted (and, in the last case, un-syncoated) preterite forms.

²² Exemplified by modern standard German *fahren~fährt* 'to go' vs. *wahren~wahrt* 'to preserve'; from a synchronic viewpoint, whether the tonic vowel /a:/ alternates to /ɛ:/ (written <äh>) in the 3SG is entirely a result of the conjugational class to which *fahren* and *wahren* respectively happen to belong, and nothing to do with the phonological environment (which are identical here, apart from /f/ vs. /v/ in the onset).

A Morphological Typology of Umlaut of Short *a in Old High German:

A: root trigger		<i>engil</i> < *angila- ‘angel’ <i>megin</i> < *magina- ‘strength’
B: stem trigger	B1: ja(n)/jō(n)-stem	B1a: heavy <i>arbi</i> < *arbja- ‘inheritance’
		B1b: historically light, with gemination <i>betti</i> < *baddja- ‘bed’
		B1c: light (i.e. roots in *-r) <i>heri</i> < *harja- ‘army’
	B2: īn-stem <i>strengi</i> < *strengī- ‘strength’	
	B3: i-stem; former u-stems; cons. stems <i>steti</i> < *stadī ‘place (DAT)’	
	B4: n-stem <i>nemin</i> < *namin ‘name (DAT)’	
	B5: W1 verbs	B5a: heavy <i>ganemnit</i> < *namnid- ‘named’
		B5b: historically light, with gemination <i>zellando</i> < *talljand- ‘telling’
B5c: light (i.e. roots in *-r) <i>nerien</i> < *narjan ‘save’		
B6: S6/S7 *-j- infix verbs <i>hebben</i> < *hafjan ‘lift’		
C: inflectional trigger	C1: weak adjectives <i>aldin</i> < *ald-in- ‘old’	
	C2: strong (S6 and S7) verb 2sg and 3sg present indicative <i>ferit</i> < *farid ‘goes’	
	C3: preterite opt. after syncope (W1) <i>taldi</i> < *tal(i)dī ‘might tell’	
	C4: pret.-pres. subj.	C4a: present <i>megi</i> < *magī ‘may’
		C4b: preterite <i>mahti</i> < *mahtī ‘might’
	C5: comparative/superlative ending <i>lengiro</i> < *langir-	
C6: pronominal -iu (fem nom sg + neut nom/acc pl) <i>elliu</i> < *all-iu		
D: derivational trigger	D1: *-īpō- (feminine ō-stem abstract nouns: German <i>-te</i>) <i>angida</i> < *ang-īpō- ‘narrowness’	
	D2: *-īga- (adjectivizing suffix: German <i>-ig</i>) <i>mahtig</i> < *maht-īga- ‘powerful’	
	D3: *-līka- (adjectivizing suffix: German <i>-lich</i>) <i>pidarblihchor</i> < *p̄arb-līka- ‘more usefully’	
	D4: *-inga- (nominalizing suffix: German <i>-ing</i>) <i>samahefti[n]cum</i> < *sama-haft-inga- ‘continuously’	
	D5: *-ilīna-, *-ilan- (diminutive suffixes: German <i>-lein/-el</i>) <i>sakhilin</i> < *sakkilīna- ‘satchel’ <i>lihamilo</i> < *līka-ham-ilan- ‘corpusculum’	
	D6: *-nisja-/*nisjō- (abstract noun suffix: German <i>-nis</i>) <i>fīrstandnisse</i> < *stand-nisja- ‘understanding’	
	D7: *-iska- (adjectivizing suffix: German <i>-(i)sch</i>) <i>menisclih</i> < *mann-isk-līka- ‘human (adj)’	
	D8: *-injō- (feminine agentive suffix: German <i>-in</i>) <i>forasagin</i> < *saginjō- ‘prophetess’	
E: clitic trigger (only in Otfrid) <i>meg iz</i> < *mag iz		

In the remainder of this subsection I will expand on all the possible morphological levels that can possibly trigger umlaut. The four basic levels of morphological proximity in which the trigger phoneme can occur are as follows:

- A. Trigger in word root
- B. Trigger in stem affix
- C. Trigger in inflectional affix
- D. Trigger in derivational suffix

Although A—for the most part—applies only to idiosyncratic disyllabic morphemes that happen to contain both *a and *i, what I have delineated as levels B and C contain a large degree of diversity, and in the following paragraphs I will go through each sublevel of these and explain my reasoning for classifying tokens in a certain way. The D level likewise has sublevels, but each corresponds to a different derivational suffix.

Note that the order in which the *sublevels* of B, C, and D are represented is based on the order in which these various morphological topics are likely to be described in a handbook, with nouns followed by adjectives followed by verbs; of course the implicit hypothesis is that the larger groups A through D exhibit umlaut in decreasing frequency (if grammaticalization has occurred or is in the process of occurring), but there is no reason to expect that, e.g., the B1 sublevel (ja(n)- and jō(n)-stem substantives) should exhibit umlaut more than the B2 sublevel (īn-stems, such as *aldī(n) ‘age’). I have tried to give some logical structure to the ordering of the sublevels within the larger groups, but this ordering has nothing to do with their hypothesized relative propensity for umlauting. Sublevel C6, for example—the umlauting effect of the neuter singular and feminine nominative singular adjective ending *-iu*—is ordered last in the C class

because it was an afterthought. Likewise, the sublevels of D essentially assume the order in which I came across them in the sources.

The letters A, B, C, and D are how I refer to these four fundamental groups in the dataset, and the sublevels (e.g., B1a, C3) are likewise the same codes that I employ in the dataset itself.

A: Root Trigger

This group is rather self-explanatory, and I have already given some examples, but here I will go into more detail as well as explore possible concerns and how I decided to deal with them in my dataset.

Since morphemes in Proto-Indo-European are generally monosyllabic, there are very few instances where Proto-Germanic *a and *i cooccur in a root inherited from a single Proto-Indo-European morpheme. We do find some in the dataset, e.g.:

felises ‘stone (GEN SG)’ (Abrogans 44.1) ← PGmc *falīs-a- ← PIE *pel(i)s- ‘cliff’²³

But a large group of the root-trigger lexemes are Indo-European compositions with affixes that are no longer productive in Germanic.

emmizen ‘always’ (Otrifrid 2.14.104) ← adverbial use of the dative plural of PGmc

*amita- ‘always’ ← *h₃emh₃- ‘establish; swear’²⁴ with fossilized adjectival *-tós

mekinu ‘strength (INST SG)’ (Abrogans K 242.8) ← PGmc *mag-ina-, a derivation of *meg^h- ‘be able’

uuartil ‘watcher’ (Muspilli 66b) ← PGmc *ward-ila-, from *warduz ‘a guard’

cremizze ‘furious (NOM PL)’ (MH 19.5a) ← PGmc *gram-itja-²⁵

²³ Cf. Gk πέλλα and Skt pāṣī-, both ‘stone,’ and OIr *ail* ‘cliff’; also Old Norse *fjall* from the variant *falzaz ← *pelsó-.

²⁴ Cf. Gk ὄμνομι ‘swear’ and Skt *ámīti* ‘lays hold of, grasps; swears’ (Mallory & Adams 277).

²⁵ Cf. many verbs built with this suffix; not only *gremmizen* (Weak 1) and *gremizzōn* (Weak 2), both ‘to rage, be furious,’ but also *spīuizzōn* ‘to spit out,’ *lougizzēn* ‘to blaze,’ *trepizzēn* ‘to gallop,’ *rūnizzōn* ‘to whisper, grumble,’ etc.

It is difficult to make a judgment call on whether the root of each of these lexemes, if they survived into Germanic outside of the above compositional forms, would have been recognized for what it is by native speakers of West Germanic. Surely OHG *mekin/megin* ‘strength’ is transparently connected to the verb *magan* ‘to be able,’ as is *uuartil* to the verb *uuartēn* ‘to watch, perceive, beware’ and the noun *uuart* ‘a guard.’ Likewise, the connection between *gremizzi* ‘furious’ and *gram* ‘furious; gloomy’ was probably obvious synchronically. But on the other hand, *emizēn* ‘always’ and a handful of other terms derived from Germanic *amita- (*emizīg* ‘persistent,’ whence modern German *emsig*; *emizzī* ‘persistence’; *emizzigōn* ‘to conserve’) exist independently of any cognates that did not acquire the umlaut trigger; all Germanic words from *h₃emh₃- ‘grasp, establish’ that could possibly be perceived synchronically as connected to *emizēn*, etc., are built from Proto-Germanic *amitaz, which itself contains the umlaut trigger *i.

Faced with the choice of deciding for each lexeme whether (or to what extent) native speakers would have been able to recognize the no longer productive roots of these derived terms, or otherwise to take them all as a single category with the true non-composite morphemes like *felis*, I have opted to go with the latter. Firstly, a per-lexeme judgment about derivation transparency among native OHG speakers is difficult or impossible to make from a modern perspective. Secondly, treating this entire sub-group of fossilized compounds as collectively suspect or less useful than “true” non-composite roots is also problematic because there would still be a large degree of variety with regard to how easily individual lexemes could be analogically reshaped on the model of similar or related lexemes, and there would still be no way

to measure or control for this. The simplest option here is to take them together with “true” compounds like *felis*.²⁶

In addition to fossilized derivational suffixes, like the above examples, the Old High German lexicon offers abundant examples of obsolete inflectional morphology that have been fossilized in one form or another. The most common example of this is the Indo-European os/es-stem nouns (which are mostly neuter), wherein the e-grade of the ablauting stem extension *-(o/e)s-, after raising to *i in this unstressed syllable, can cause i-mutation in the tonic vowel of the noun. The distribution of the *-(o/e)s- element throughout the paradigm of these nouns differs not only across the different Germanic daughter languages, but also from lexeme to lexeme; *bant* ‘bond, strap’ (Gmc *band-az, oblique *band-iz-) and *lamb* ‘lamb’ (Gmc *lamb-az, oblique *lamb-iz-) are two examples that in German exhibit the s-stem ending only in the plural: *die Bänder, die Lämmer*; but *ahir* or *ehir* ‘ear [of corn]’ (Gmc *ah-az, oblique *ah-iz-) is one whose oblique form with *-iz- has apparently been generalized as the new root.

	PIE	Gmc	OHG
NOM/ACC SG	*-os	*-az	[<i>pant</i>], [<i>lamb</i>], [<i>ehir</i>]
DAT SG	*-es-i	*-iz-i	
GEN SG	*-es-os	*-iz-as	
...			
NOM/ACC PL	*-es-ǵ₂	*-iz-a	<i>pentir</i> (MH 1.12c), <i>lambir</i> (Otfrid 5.15.20)
DAT PL	*-es-mos	*-iz-(u)maz?	<i>pantirun</i> (MH 24.6c)
GEN PL	*-es-oHom	*-iz-ǵ̄	<i>ahiro</i> (Abrogans Pa 127b)

²⁶ Even etymological non-compounds like WGmc *angila- can be problematic; see my footnote to *aengil* in Isidor in 2.2.b above. Realistically speaking, etymological non-compounds possess no special immunity to analogical restructuring (even if just in the orthography).

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Since forms like *lambir*, *pentir*, *ahiro*, etc., are so rare in the source texts, and since *-ir* is in OHG still an anomaly of the plural forms of this small class of neuter nouns and has not been expanded greatly to include many other nouns (e.g. *die Länder*, as *das Land* is historically an a-stem and not an s-stem), I have decided to class them as A-types together with *uuartil* and *emizzēn* above whose derivational components are no longer productive in the OHG period. Nouns of the form *lamb~lambir* and *pant~pentir* behave in OHG just like neuter a-stems with a suppletive stem in the plural, and *ahir* is likewise an a-stem with the **-iz-* form having been reanalyzed as part of the root. Other nouns that formerly belong to this type have been reanalyzed as belonging to other declensions, such as

ekiso ‘fear’ (Abrogans K 146.12) ← PGmc **agis-an-* ← **h₂ég^h-os*, oblique **h₂ég^h-es*²⁷

which is now an n-stem. The element *egis-* (like *em(m)iz-* above), historically the fossilized oblique stem of the obsolete s-stem declension, is found in many other Old High German lexemes, e.g.,

egislih ‘horrible, dreadful’ (Otfrid 2.6.44),

thus further justifying the classification of former s-stem nouns (in whatever form they take in OHG) as A-types in this schema, whose purpose is to house lexemes where whatever compositional relationship between the umlaut trigger and token might have existed is no longer productive or transparent for the native speaker.

A final source of a handful of “root-trigger” tokens is, of course, loanwords. Even compounds that are transparent in the language of their origin will usually not be transparent when loaned into a different language (except in the case of calques. The source texts offer us

²⁷ Cf. Gk ἄχος, genitive -ους (← -ε(h)ος ← **-esos*) ‘pain, distress.’

several important Latin loans into West Germanic that exhibit the potential to undergo umlaut, e.g.:

engil ‘angel’ (Otfrid 1.14.5) ← *angila- ← Latin *angelus*

ketinu ‘chain (DAT SG)’ (Otfrid 1.5.58) ← *kadinō- ← Latin *catena*

It is, however, sometimes the case that a loanword will be remodeled via folk etymology, e.g.:

maricreozza ‘pearl’ (Abrogans K 248.3) ← *mari-greotō- ← Latin *margarita*

and the derived pseudo-participle:

kimericreozzod ‘adorned with pearls’ (Abrogans K 45.10) ← *-mari-greotōda-,

in which the segments of *margarita* have been altered somewhat to conform both to West Germanic phonology but also to the imagined definition of a pearl as a *grain of sand* (WGmc *greotō⁻²⁸) of the *sea* (WGmc *mari-).

B: Stem Trigger

The next broad category contains morphological delineations where a stem ending—historically, a morpheme not in the root itself but preceding any nominal or verbal inflectional endings—carries an umlaut trigger *i(:) or *j. This category is further divided into sublevels that need to be kept apart; if analogy is working to promote or inhibit umlaut across one paradigm (such as ja-stem nouns like WGmc *badd-ja- ‘bed’ or n-stem nouns like *han-in- ‘rooster’), we ought not to assume that the same is happening at equal rates in other paradigms.

B1: ja(n)/jō(n)-stem Nouns and Adjectives

An important historical delineation of morphology in which an umlaut trigger—in this case, *j—is pervasive throughout the paradigm is the substantives built from a root followed by PGmc *-jaz, *-jō, *-ja (PIE *-yos, *-yeh₂, *-yom). From an Indo-European perspective, these do

²⁸ OHG *grioz*; cf. OE *grēot* ‘sand, dust, gravel’; modern English *grit*.

not comprise a separate declension from the masculine/neuter *o-* and feminine *eh₂* (or *ā*)-stems; in Germanic, however, the additional semivowel **j* before the stem vowel causes enough complications for handbooks of OHG, OS, Gothic, etc., to treat this group of substantives with their own paragraphs or even pages.

This inserted **j* can also be found in many *n*-stem (“weak”) nouns and adjectives. These will be referred to as *jan-* and *jōn-*stem substantives.

For the purposes of this study, the distinctive behavior of the *ja(n)-* and *jō(n)-*stems can be broken down into two features: the induction of gemination in a preceding root final consonant, e.g.

Gmc **badjā* ‘plot, resting-place’ → WGmc **baddja-* ‘bed, couch, cushion, etc.,’
and then, in the individual daughter languages, *i*-mutation of the root’s nuclear vowel:

WGmc **baddja-* → OE *bed(d)*; OS *bed, beddi*; OHG *betti*.

We can break this declensional class down further:

B1a: Historically Heavy (Bimoraic) Roots

With certain intriguing exceptions, we do not observe gemination before **j* following a long vowel (although *i*-mutation of long vowels does not fall into the domain of this study, anyway). However, by the same token, there is no gemination in *ja-* and *jō-*stems of consonant clusters, e.g.,

erbe ‘inheritance (ACC SG)’ (Otfrid 1.22.54) ← **arbja*.

enti ‘end (ACC SG)’ (Otfrid 1.5.10) ← **andja*

garauuu ‘ready (FEM NOM SG)’ (1.5.70) ← **garwjō-*

The *n*-stems with the same **j* infix—which include “weak” (definite) *ja-/jō-*stem adjectives—play by the same rules, e.g.:

erpeo ‘heir’ (Abrogans K 144.7) ← *arbjan-

khenfun ‘combatants, fighters’ (Muspilli 40a) ← *kampjan-

herten ‘hard (GEN PL DEF)’ (Otfrid 1.1.90) ← *hardjan-

Important to note is that these ja(n)- and jō(n)-stem substantives have, in West Germanic, the umlaut trigger *j throughout their entire singular and plural paradigms (at least prior to the loss of postconsonantal *j, a separate process that occurred at different times in different regions). Theoretically, then, a noun like *enti* ‘end’ ← *andja- has no expected paradigmatic means of analogically de-umlauting itself (as opposed the i-stem nouns where we do not expect umlaut in the nominative and accusative singular; see the B3 type below).

B1b: Historically Light (Monomoraic) Roots with Gemination

The distinction between the B1a and B1b types of substantives that can undergo umlaut is less significant than that between B5a and B5b types of verbs below, since the former have the semivowel *j all throughout their paradigm in West Germanic and therefore are expected to geminate all throughout their paradigm (and therefore should have no means to analogically de-umlaut) whereas the latter, being the Weak 1 verbs, have *i and *i: instead of *j in some parts of their paradigm. But for consistency’s sake I am breaking down the B1 type in parallel with the B5 type.

Since we expect all ja(n)- and jō(n)-stems with historically light roots (except for those ending in *-r; see B1c below) to undergo gemination of the root-final consonant all across the paradigm, the B1b-type substantives wind up with an identical shape to the B1a-types, which are historically heavy:

denni ‘barn floor, threshing floor’ (Otfrid 1.27.65) ← WGmc *dannjō- ← PGmc *danjō

ketti ‘grave, crypt’ (Otfrid 3.24.82) ← WGmc *kaddja- ← PGmc *kadja

hellono ‘hells (GEN PL)’ (Otfrid 3.24.100) ← WGmc *halljō- ← PGmc *haljō-

A great many lexemes from the n-stem variety of this type are agent nouns built from strong and weak verbs:

thagchio ‘a roofer, thatcher’ (Abrogans K 19.13) ← WGmc *þakkjan- ← PGmc *þakjō
(cf. *þakjanaŋ ‘to cover, bedeck’)

gisezzo ‘a sitting person’ (Otfrid 4.12.31) ← WGmc *-sattjan- ← PGmc *satjō (cf.
*sitjanaŋ ‘to sit’)

scapheo ‘a creator, maker’ (Abrogans Pa 126f) ← WGmc *skappjan- ← PGmc *skapjō
(cf. *skapjanaŋ ‘to create, shape’)

The present study does not track these two subsets of ja(n)/jō(n)-stems—deverbal and non-deverbal—separately, although a finer distinction like this would be appropriate for a future investigation of these or similar data.

B1c: Light Roots in *-r (No Gemination)

The remaining logical subset of ja(n)- and jō(n)-stem substantives is those which historically have a light (monomoraic) stem and *retain* a light stem following the operation of the gemination rule. The only scenario in which this occurs is when the root-final consonant is *r, whose tendency to remain unaffected by West Germanic gemination is well-attested.

It so happens that almost all tokens of this type are instances of the lexeme *heri* ‘army, host’ ← PGmc *harja-, whether as a word of its own—

heri ‘army’ (Otfrid 3.6.35)

herie ‘army (DAT SG)’ (Otfrid 4.17.7)

heries ‘army (GEN SG)’ (Otfrid 4.12.59)

herio ‘armies (GEN PL)’ (Muspilli 75b)

—or as the first element of a compound, e.g.,

herizohen ‘duke, military leader (GEN SG)’ (Otfrid 4.16.11) ← PGmc *harja-tugō

hariscapf ‘army, host, military body’ (Otfrid 4.17.15) ← PGmc *harja-skapiz

herimanno ‘soldiers (GEN PL)’ (Abrogans K 68.15) ← PGmc *harja-mann-.

In the source texts analyzed, only three (of 44) tokens of the B1c type represent other lexemes:

merikerte ‘the earth(?), the sky(?)’²⁹ (ACC SG)’ (Abrogans K 162.10) ← PGmc *marja-gardjō

merikerte ‘id.’ (Abrogans Pa 132b)

peri ‘berry (DAT SG)’ (Abrogans K 273.2) ← PGmc *barja

meres ‘sea (GEN SG)’ (MH 21.1c) ← PGmc *marjas

B2: īn-stem Nouns

Nouns belonging to this class, all of which are feminine and most of which represent abstract nominalizations of various adjectives (cf. modern German *die Höhe, die Länge, die Stärke, die Nähe*, etc.), are originally feminine n-stems with the vowel *-ī- rather than *-ō- that in Old High German have for the most part generalized the nominative singular form in -i to all other parts of the paradigm. Historically, they probably follow historically from the PIE nouns in *-ih₂ → *-ī—sometimes called the *devī* declension on the basis of a Sanskrit noun typifying them—which are themselves a variation of the zero-grade *-iḥ₂ → *-īa of the *-ieh₂ → *-īā group that otherwise yield the Germanic jō-stem nouns. These abstract nouns are abundant in Old High German, e.g.:

alti ‘age, oldness’ (Abrogans K 22.8) ← *aldīn-

unsemfdi ‘difficulty,’ (Abrogans K 84.10) ← *-sanftīn-

²⁹ The semantics of *marja-gardjō are apparently ‘girt by the sea,’ but the word glosses *in etherium* in both K and Pa MSs.

uuerino ‘protection, defenses (GEN PL)’ (Abrogans K 163.11) ← *warīn-

garauui ‘readiness (ACC SG)’ (Isidor 13.92) ← *garwīn-

B3: i-stem (etc.) Nouns

We have already explored above, in **2.1.c**, why the masculine and feminine singular of Old High German i-stem nouns are not good candidates for umlaut, regardless of their historical structure. The apocope of final short *-i in heavy- and light-stem nouns of the i-declension—whether this was entirely a phonological rule or merely the analogical extension into the light-stem nouns of a rule that phonologically only affected heavy-stems—means that the i-stem paradigm, in the period in which umlaut is operational, contained at least one reliable non-umlauting form from which the rest of the paradigm could theoretically generalize /a/ back into umlauted /e/.

That said, the umlaut trigger *-ī (or, in the genitive plural, *-j-) is present throughout most of the paradigm:

Historical Paradigm of *gast* ‘guest’ (i-stem noun):

	WGmc (pre-apocope)	pre-OHG (post-apocope)
NOM/ACC SG	*gasti	*gast
GEN/DAT/LOC SG	*gastī	*gasti
NOM/ACC PL	*gastī	*gasti
GEN PL	*gastjō	*gastjo
DAT/LOC PL	*gastim	*gastim

Although I am nominally describing the B3 type as referring to i-stem nouns, this type will also include historical u-stem nouns with heavy stems, which tend to behave like i-stems in Old High German and ought to manifest umlaut similarly. This incorporation of u-stems with

heavy roots into the i-declension is likely attributable to the superficial identity between the two after High Vowel Deletion takes place in forms like the nominative singular: OHG *hant* ‘hand’ ← *handu- vs. OHG *gast* ‘guest’ ← *gasti-.

A lexeme for which we have abundant examples in the source texts is Proto-Germanic *handuz ‘hand’ (cf. Gothic *handus*, Old Norse *hǫnd* with u-mutation):

Historical Paradigm of *hant* ‘hand’ (former u-stem noun):

		Proto-Germanic	West Germanic	Old High German
SG	NOM	*handuz	*handu	[<i>hant</i>]
	ACC	*handu	*handu	[<i>hant</i>]
	GEN	*handauz	*handō	→ <i>henti</i> (Otfrid 1.7.13); cf. <i>gesti</i>
	DAT	*handiwi	*handiwi	→ <i>henti</i> (Otfrid 1.4.74); cf. <i>gesti</i>
PL	NOM	*handiwiz	*handiwi	→ <i>henti</i> (Otfrid 4.16.56); cf. <i>gesti</i>
	ACC	*handunz	*handū	→ <i>henti</i> (Otfrid 1.4.16); cf. <i>gesti</i>
	GEN	*handiwō	*handiwō	(*handjō; N/A in these sources)
	DAT	*handumaz	*handum	→ <i>hentin</i> (Otfrid 1.11.61); cf. <i>gestim</i> ; occurs alongside inherited <i>hanton</i> (Otfrid 4.23.43)

Due to this partial absorption of the u-stem nouns into the i-declension, former u-stems like *handuz ‘hand’ can be expected to exhibit umlaut at rates comparable to historical i-stems. The only exception worth noting is that the dative plural sometimes preserves the historical u-stem form, which does not contain the umlaut trigger *i.

Another declension that sometimes patterns like i-stems in the OHG sources, in which cases it will be grouped in together with the i-stems for the purposes of this study, is the

consonant-stem nouns. Like the heavy-stem nouns of the u-declension, many consonant-stem nouns—such as *burg* ‘hill-fort,’ *naht* ‘night’—in certain texts have given up their historical morphology in favor of that of the i-declension.³⁰ The two most frequent consonant-stem nouns encountered (apart from nd-stem participles and n-stem nouns) within the corpus of this dissertation are *naht* ‘night,’ with all three of its i-declension-like attestations coming from the *Murbacher Hymnen*, and *zan(t)* ‘tooth’ (Gmc and WGmc *tanþ-):

Historical Paradigm of *naht* ‘night’ and *zan(t)* ‘tooth’:

		PGmc	WGmc	Old High German
SG	NOM	*nahts	*naht	[<i>naht</i>]
	ACC	*nahtu	*nahtu	[<i>naht</i>]
	GEN	*nahtiz	*nahti	*naht → <i>nahti</i> (MH 1.1a) *tan(þ) → <i>zeni</i> ³¹ (Abrogans K 162.9); cf. <i>gesti</i>
	DAT	*nahti	*nahti	*naht → <i>nahti</i> (MH 25.2d); cf. <i>gesti</i>
PL	NOM	*nahtiz	*nahti	(N/A in these sources)
	ACC	*nahtunz	*nahti (?)	(N/A)
	GEN	*nahtō	*nahtō	*tan(þ)ō → <i>zaneō</i> (Abrogans Pa 132b); cf. <i>gestio</i>
	DAT	*nahtum	*nahtum	*nahtum → <i>nahtim</i> (MH 5.1b) *tan(þ)um → <i>zenim</i> (Abrogans K 134.12); cf. <i>gestim</i>

³⁰ Braune writes the following on the masculine consonant-stems: “Von einsilbigen Maskulina ist im Ahd. nur noch das Wort *man* ‘Mensch’ bei der alten Flexion geblieben. Die übrigen, die nach dem Zeugnis der anderen germ. Sprachen früher konsonantisch deklinierten, wie *zand*, *zan* ‘Zahn,’ *fuoz* ‘Fuß’ u.a., sind in die *i*-Deklination übergetreten.” [Of the monosyllabic masculines, only the word *man* has remained with the original inflection in OHG. The remaining words that formerly decline as consonant-stems as attested by the other Germanic languages, like *zand*, *zan* ‘tooth,’ *fuoz* ‘foot,’ among others, have crossed over into the i-declension.] (2004, § 238).

On the feminine consonant-stems: “Die Mehrzahl der früher hierher gehörenden Wörter ist im Ahd. in die *i*-Dekl. übergetreten.” [The majority of words formerly belonging here have crossed over into the i-declension in OHG.] (id., § 240).

³¹ This token, clearly a singular form, glosses genitive plural *dentium*.

Note that the West Germanic forms in short *-i (exactly like the heavy nominative/accusative singular i-stems, and their light-stem counterparts, too, by analogy) cannot account for the attested OHG forms in *-i* because we expect short *-i to be lost due to the High Vowel Deletion rule after heavy stems. Forms like *nahti* are accounted for by the fact that these monosyllabic consonant-stem nouns essentially behave like i-stems in Old High German and assumed, in the pre-OHG period, endings that reflect West Germanic long *-ī found in parts of the i-declension paradigm. For this reason these consonant-stem nouns and some former u-stem nouns with heavy stems are classified as B3-type tokens alongside the i-stems.

B4: n-stem Nouns

The masculine and neuter n-declension of Indo-European, characterized by a stem extension with *-n- preceded by either an e-grade or o-grade ablaut, alternating with a zero-grade in parts of the paradigm, is continued by a single paradigm in West Germanic reflecting both e- and o-grades. The historical Germanic pattern of the WGmc paradigm can be observed in Gothic masculine n-stems such as *hana* ‘rooster’:

		pre-PGmc	Proto-Germanic	Gothic
SG	NOM	*-on-s ~ *[-ō]	*hanō	<i>hana</i>
	ACC	*-on-ŋ	*hananŋ	<i>hanan</i>
	GEN	*-en-es	*haniniz	<i>hanins</i>
	DAT	*-en-ej	*hanini	<i>hanin</i>
PL	NOM	*-on-es	*hananiz	<i>hanans</i>
	ACC	*-on-ŋs	*hananunz	<i>hanans</i>
	GEN	*-ŋ-oHom	*hananō	<i>hananē</i> ³²

³² The Gothic genitive plural ending in *-ē* instead of expected *-ō has not been sufficiently explained.

	DAT	*-ŋ-mos	*hanammaz	<i>hanam</i>
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Although Old High German seems to be in the process of leveling this paradigm out in favor of the o-ablaut (the vocalization /a/ in OHG), many forms with the stem vocalization /i/ (continuing the e-grade) can be found in early OHG sources, and this vowel in its position directly following the noun root allows for the possibility of umlaut.

namin ‘name (DAT SG)’ (Abrogans K 77.6) ← *namō, oblique *-nam(a/i)n-

nemin ‘name (DAT SG)’ (Isidor 19.151)

forasagin ‘prophet (GEN SG)’ (Isidor 51.462) ← *-sagō, oblique *-sag(a/i)n-

lichamin ‘body (DAT SG)’ (MH 2.8d) ← *līka-hamō, oblique *-ham(a/i)n-

henin ‘rooster (DAT SG)’ (MH 25.6a) ← *hanō, oblique *han(a/i)n-

Since even at a stage prior to the leveling out of the e-grade ablaut (i.e. /i/) the stem containing umlaut-triggering /i/ occurs only in a limited part of the n-stem paradigm, the B4 type is significantly more open to leveling out of umlaut (that is, replacing *lautgesetzlich* **nemin* with *namin* on the basis of acc. sg. *naman* or nom. sg. *namo*) than types B1, B2, and B3.

B5: Class 1 Weak Verbs

The class 1 Weak (W1) verbs are characterized in earlier Germanic by the infix *j in the present tense which corresponds to the linking vowel short *i before the preterite marker *-d- in the past-tense forms. From a phonological perspective, the present-tense forms of the W1 verbs have much in common with the ja- and jō-stem substantives: they are easily classified into three subordinate groups depending on their phonological shape in Proto-Germanic, which has important implications for how the verb stem will look following the operation of West Germanic gemination before the *j that characterizes these verbs.

However, unlike the relatively simple situation with the ja-/jō-stems—whereby, after the WGmc gemination rule, original light-stems become prosodically identical to etymological heavy-stems (except for those with roots ending in *-r that resists gemination)—the W1 verbs have the added dimension of a preterite form in which gemination cannot naturally occur, since the full vowel /i/ does not cause gemination. What precipitates the greatest difference among these three subgroups of B5 is the syncope rule, which in theory affects only verbs with historically heavy stems, e.g.

irfaltos ‘you destroyed’ (Otfrid 1.22.45) ← WGmc *ur-fallidōs (deverbal *falljan from PGmc Strong Class 7 *fallanaǵ ‘to fall’),
but by analogy also comes to affect verbs that undergo gemination in parts of their present-tense paradigm, as from a syllable-weight perspective they become indistinguishable to the former type, e.g.

gidualtos ‘you remained, persisted’ (Otfrid 1.22.45) ← WGmc *ga-dwalidōs (*dwalljan ← PGmc *dwaljanaǵ)

zaltun ‘they told’ (Otfrid 3.2.27) ← WGmc *talidun (*talljan ← PGmc *taljanaǵ),
even though the inherited non-syncoated forms of these cooccur in the source texts:

zelitun ‘they told’ (Otfrid 3.7.56) ← WGmc *talidun.

In the following paragraphs I will go into more detail on the three subdivisions of the B5 type and explain why they must be kept apart from each other if we intend on controlling for the intraparadigmatic frequency of an umlaut-friendly environment.

B5a: Weak 1 Verbs with Historically Heavy Stems

Although it seems near-impossible and lies outside the scope of this dissertation to *quantify* the extent to which the different subcategories of Weak 1 verbs—or, really, any

morphophonological delineation—favor or disfavor umlaut within their conjugational paradigms, we can confidently make the *qualitative* statement that Weak 1 verbs whose stems are historically heavy (even prior to West Germanic gemination), to which I am assigning the label B5a, have a less umlaut-friendly paradigm than verbs with historically light stems, and a far less umlaut-friendly paradigm than light-stem verbs with stems ending in *-r. This is because of the syncope rule that deletes non-word-final short vowels following a heavy syllable:

santun ‘sent (3PL)’ (Otfrid 1.27.9) ← *sandidun

ginanta ‘named, gave as a name’ (Otfrid 1.27.25) ← *namnidā

When the non-umlauting vowel in question is short *a, as in the above examples, the modern standard language has in most cases adopted the non-umlauted form, as opposed to one that has undergone umlaut by analogy (e.g. *hören~hörte*; cf. Middle High German *hæren~hôrte* with non-umlauted preterite and participle). These form the class known as the *Rückumlaut* verbs which I have already expounded upon in a few places above (e.g. 2.1.c) and will not devote more space to here.

It is, however, worth noting that even the most basic class of *Rückumlaut* verb—those with *e* in the present stem and *a* in the past—was not ubiquitous across the Old High German dialects, since the syncope rule did not affect all regions in the OHG dialect continuum at the same time or even to the same degree. Counterexamples to the above tendency are not difficult to find:

sendida ‘sent (3SG)’ (Isidor 37.323) ← *sandidā

sendidon ‘sent (3PL)’ (Isidor 37.325) ← *sandidun.

This is an important reason why umlaut data from various OHG source texts need to be analyzed independently and cannot be taken as evidence of the state of umlaut in some common Old High German language.

The situation is more straightforward in the present-tense paradigm of these verbs. Owing to the ubiquity of the *-j- element (sometimes realized as *i or *i:) that characterizes the W1 verbs, there are no parts of the indicative, optative, or imperative conjugations that ought not undergo umlaut (at least prior to the postconsonantal loss of *j). Below is the present paradigm for WGmc *namnjan ‘to name’ (completed with tokens from other lexemes where necessary):

Proto-Germanic		West Germanic	Old High German	
IND	SG	*namnijō	*namnju	<i>nemniu</i> (Isidor 19.160)
		*namnīsi	*namnis	<i>nennist</i> (Otfrid 5.8.30)
		*namnīþi	*namniþ, -d ³³	[<i>ki</i>]nennit (Abrogans K 120.2)
	PL	*namnijamaz	*namnjam	<i>nennen</i> (Otfrid 2.14.8)
		*namnīþ	*namniþ → *namnjaþ, - d ³⁴	<i>nennet</i> (Otfrid 3.18.44)
		*namnijanþi	*namnjanþ, -nd	<i>nennent</i> (Otfrid 4.19.40)
OPT	SG	*namnijau	*namnjē	[<i>giuuenke</i> ‘I may falter’ (Otfrid 4.13.27)]
		*namnijais	*namnjēs	<i>nennes</i> (Otfrid 4.21.35)
		*namnijai	*namnjē	[<i>gi</i>]nenne (Otfrid 1.1.39)

³³ The voiced variant, resulting from Verner’s Law, is in OHG borrowed into the weak verbs from the strong-verb paradigm. In Old English the opposite takes place, with *-þ being generalized from the weak verbs into the strong verbs.

³⁴ For this analogical restructuring of the 2PL (in the indicative and imperative, which were identical) which occurred in many parts of the Old High German region, see the relevant footnote in 2.2.e.

	PL	*namnijaim	*namnjēm	[<i>hengen</i> ‘we may agree’ (Otfrid 3.25.10)]
		*namnijaip	*namnjēp, -d	[<i>irkennet</i> ‘you may recognize’ (Otfrid 3.22.63)]
		*namnijain	*namnjēn	[<i>menden</i> ‘they may rejoice’ (Otfrid 3.26.67)]
IMP	SG	*namnī	*namni	[<i>uuenti</i> ‘turn!’ (Otfrid 1.5.18)]
	PL	*namnīp	*namniþ → *namnjaþ, -d	[<i>bithenket</i> ‘consider!’ (Otfrid 3.25.23)]
INF		*namnijana	*namnjan	[<i>gi</i>]nennen (Otfrid 1.1.12)
PARTICIPLE		*namnijand-	*namnjand-	[<i>mententi</i> ‘rejoicing’ (Otfrid 5.25.100)]

B5b: Weak 1 Verbs with Historically Light Stems with Gemination

As has been discussed above, the noteworthy feature of W1 verbs that have light (monomoraic) stems in earlier Germanic—e.g. *taljana ‘to tell, count,’ *hradjana ‘to save, rescue,’ *frawjana ‘to rejoice,’ *satjana ‘to set, cause to sit’—is that their root-final consonants undergo gemination in some parts of the present-tense paradigm (wherever the conjugation-defining *-j- infix ← PIE *-(e)y(ó/é)- is not realized as *i or *i:). Below is the portion of the paradigm of *taljana ‘to tell’ that is built on the present-tense stem *tal-j-/*tal-i-:

Proto-Germanic		West Germanic	Old High German	
IND	SG	*taljō	*tallju	<i>zellu</i> (Otfrid 1.2.21)
		*talisi	*talis	[<i>er</i>]zelist (Otfrid 2.9.22)
		*talipi	*talip	<i>zelit</i> (Otfrid 1.19.28)

	PL	*taljamaz	*talljam	<i>zellen</i> (Otfrid 3.18.14)
		*talip	*talip → *talljaþ, -d	<i>zellet</i> (Otfrid 4.20.10)
		*taljandi	*talljand	<i>zellent</i> (Otfrid 1.3.2)
OPT	SG	*taljaų	*talljē	<i>[gi]zelle</i> (Otfrid 4.1.25)
		*taljais	*talljēs	<i>zelles</i> (Otfrid 3.18.36)
		*taljai	*talljē	<i>[gi]zelle</i> (Otfrid 3.18.4)
	PL	*taljaim	*talljēm	<i>zellen</i> (Otfrid 3.18.14)
		*taljaip	*talljēþ, -d	<i>[gi]zellet</i> (Otfrid 1.17.28)
		*taljain	*talljēn	<i>zellen</i> (Otfrid 1.1.108)
IMP	SG	*tali	*tali	<i>zeli</i> (Otfrid 1.3.36)
	PL	*talip	*talip → *talljaþ, -d	<i>[gi]zellet</i> (Otfrid 3.12.7)
INF		*taljanaų	*talljan	<i>zellen</i> (Otfrid 4.5.1)
PARTICIPLE		*taljand-	*talljand-	<i>zellando</i> (Isidor 47.432)

We can observe, in fact, that the only parts of the paradigm for this verb in which root-final *l does *not* undergo gemination are WGmc 2SG *talis and 3SG *talip in the indicative and WGmc 2SG *tali in the imperative.³⁵

But the preterite stem (*talid-, to continue to use this verb as an example) contains no semivowel *j and as such does not exhibit a geminate *l in the indicative, optative, or participle. The *lautgesetzlich* expected base is *zelit-*, which we find abundantly in Otfrid; however, the stem *zalt-* for both finite verb and participle is common as well. Preterite forms like

³⁵ For the analogical reshaping of the 2PL indicative and imperative from non-geminating *talip to geminated *talljaþ, see the relevant footnotes in the B5a type and also section 2.2.e above. Braune (2004) confirms this: “Auch im Präs. gibt es drei Formen, die kein *j* hatten, nämlich die 2. 3.Sg. Ind. auf *-is*, *-it* und die 2.Sg. Imp. auf *-i*” [In the present as well there are three forms that lack *j*, namely the 2SG and 3SG indicative in *-is*, *-it*, and the 2SG imperative in *-i*.] (§358).

zaltun ‘told (PL)’ (Otfrid 1.17.28) ← *talidun

sazta ‘set, established (SG)’ (Otfrid 2.4.53) ← *satiđā

dualta ‘remained (SG)’ (Otfrid 2.3.16) ← *dwalidā

quatta ‘greeted (SG)’ (Otfrid 1.11.14) ← *k^wadidā (*k^wadjanā built from *k^weþanā ‘to say’)

and the past participles that are built from the same stems generally do not exhibit umlaut because they have been constructed analogically as though they were from historically heavy-stems such as WGmc *talljanā, *sattjanā, etc.

A final consequence of gemination in parts of the paradigm of these verbs that make up what I am calling the B5b subgroup is that singleton and geminate consonants yield very different output in the Second Consonant Shift (or “High German Consonant Shift” or *Zweite Lautverschiebung*; I will abbreviate it as “2LV”). The 2LV is famously heterogeneous across the Continental West Germanic dialect continuum as far as how many degrees of this chain shift are reached (and, occasionally, as a function of neighboring consonants as well)—and for this reason needs to be taken into consideration on a scribe-to-scribe basis, as I will do in the following chapters—but one aspect of the 2LV which all texts in the corpus of this dissertation attest is the shift of single /t/ and geminate /t.t/ to the geminate fricative /ʒ.ʒ/ and affricate /t.tʃ/, respectively.³⁶ This has important ramifications for the W1 verbs. For example, whereas a verb like WGmc *talljan above, with geminated /ll/ for example in the 1SG but ungeminated /l/ in the 2SG and 3SG, is immune to the effects of 2LV, *sattjan ‘to set, place’ is left with an even more

³⁶ I am using the square under the letter to notate the voiceless alveolar laminal sibilant [ʒ] ← *t which was a distinct phoneme from its apically articulated counterpart [s] ← *s for many centuries following the period of 2LV’s operation.

irregular paradigm than it had post-gemination. However, what we actually observe in 2SG and 3SG is not what we expect:

	Gmc	After gemination	After 2LV	OHG (expected)	OHG (attested)
1SG PRES IND	*satjō	*sattju	*sattʒju	/set.tʒju/	/set.tʒju/
2SG PRES IND	*satisi	*satis	*saʒ.ʒis	*/seʒ.ʒis/	/set.tʒis/
3SG PRES IND	*satiþi	*satiþ	*saʒ.ʒiþ, -d	*/seʒ.ʒit/	/set.tʒit/

In short, we find the affricate (which *lautgesetzlich* can only arise from a geminate consonant) extended from 1SG into 2SG and 3SG. As Braune (2004) writes, “Nur die auf *pf*, *zz* (*tz*), und *ck* (*cch*) ausgehenden Verba haben die Geminat, die bei ihnen auch die Lautqualität veränderte (Affrikata statt Frikativ), auch in die 2. 3.Sg. Ind. und 2.Sg. Imp. übertragen” (§358)³⁷.

When reconstructing the West Germanic predecessor of analogically syncopated past forms like *zaltun* and *sazta* and analogically affricated present forms like *sezzit* */set.tʒit/—as well as when recording the consonant(s) historically intervening between umlaut target and umlaut trigger—I have elected to note the unetymological second consonant in parentheses, e.g.:

zalta ‘told (SG)’ ← *tal(l)idā

sazta ‘set, made to sit (SG)’ */satʒ.ta/ ← *sat(t)idā

thagta ‘covered (SG)’ (Otfrid 1.11.40) ← *þak(k)idā

sezzit ‘sets, makes to sit (SG)’ (Otfrid 5.20.55) ← *sat(t)id

scaphit ‘makes (SG)’ (Abrogans Pa 131.c) ← *skap(p)id

irrehit ‘explains (SG)’ (Otfrid 2.14.77) ← *-rak(k)id

The point of this is not to imply that geminated yet non-syncopated forms like *tallidā, *sattidā, etc., ever actually existed for such verbs; the point is only to differentiate these unetymologically

³⁷ [Only the verbs ending in *pf*, *zz* (*tz*), *ck* (*cch*) have borrowed gemination—which in these verbs also altered the manner of articulation (affricate instead of fricative)—into the 2SG and 3SG indicative and the 2SG imperative.]

syncopated B5b verbs *both* from B5b verbs that preserve their expected singleton consonants in these parts of the paradigm, e.g. *zelita*, *bithekitaz* ‘covered’ (Otfid 5.25.86), and from B5a verbs like *kannta* ← *kannidā, *santa* ← *sandidā, that have heavy stems (ending in double consonants or clusters of different consonants) etymologically. In this way I keep these special data separate while avoiding making an unnecessary judgment call on whether umlaut occurred in these words before or after the root-final consonant was artificially geminated or affricated.

B5c: Weak 1 Verbs with Historically Light Stems in *-r

The remaining class of W1 verbs is characterized by a single *-r as the root-final consonant, which theoretically does not undergo gemination even when followed by the *-j- that manifests itself in many parts of this conjugational paradigm. By far the lexemes encountered most frequently are *uuerien* ‘to ward off, resist’ and *nerien* ‘to heal, cause to survive.’

Proto-Germanic		West Germanic	Old High German	
IND	SG	*warjō	*warju	[N/A]
		*warisi	*waris	[N/A]
		*warīþi	*warīþ, -d	<i>uuerit</i> (Otfid 4.17.11)
	PL	*warjamaz	*warjam	[N/A]
		*warīþ	*warīþ → *warjaþ, -d	[N/A]
		*warjanþi	*warjanþ, -nd	[N/A]
OPT	SG	*warjaų	*warjē	<i>[bi]uuerie</i> (Otfid 4.21.24)
		*warjais	*warjēs	[N/A]
		*warjai	*warjē	<i>uuerie</i> (Otfid 2.19.7)
	PL	*warjaim	*warjēm	<i>uuerien</i> (Otfid 4.14.18)
		*warjaiþ	*warjēþ	[N/A]

		*warjain	*warjēn	<i>uuerien</i> (Otfrid 1.1.104)
IMP	SG	*wari	*wari	[N/A]
	PL	*wariþ	*wariþ → *warjaþ, -d	[N/A]
INF		*warjana	*warjan	<i>uueren</i> (Otfrid 2.8.34)
PARTICIPLE		*warjand-	*warjand-	<i>[pi]uuariantem</i> (Abrogans K 19.5)

The past forms of B5c verbs work in exactly the same way as the B5b verbs that lack analogical gemination or syncope. In other words, e.g. *warid- is found throughout the paradigm and syncope is neither expected nor encountered.

There remains a special note to be made concerning the West Germanic B5c-type verbs as they are manifested in the Old High German *Isidor* manuscript. The dialect of the *Isidor* scribe is unique among the source texts of this dissertation in that the would-be B5c-type verbs—W1 verb whose roots end in single *-r in Proto-Germanic—regularly show gemination in this text. For example, we have

nerrendin ‘saving’ (Isidor 27.225) as if ← WGmc *narrjand- and various other forms of present participle of the same verb. Although it is always difficult to know exactly what to conclude from historical orthographical evidence, I have deemed it best in these cases where the *Isidor* scribe has opted for double <rr> (and, it should be noted, never an orthographic indication that the semivowel has survived, e.g. *<rri>) to class these tokens as B5b, i.e. W1 verbs that do undergo gemination, taking the orthography at face value and assuming that *Isidor* presents a true “exception to the exception to the rule” about PGmc *r resisting gemination before *j.

B6: Strong Classes 6 and 7 Verbs with Present-tense *j Infix

Mirroring the B5-type W1 verbs are these strong verbs that have a phonologically identical (though historically disparate) infix *j following the verb root in West Germanic. This *j infix is only found in the present-tense and these verbs behave identically to other strong verbs in the preterite and past-participle forms. It affects a handful of extremely common verbs in Class 5 such as *setjana → WGmc *sittjan ‘to sit,’ *bedjana → WGmc *biddjan ‘to ask, pray,’ *legjana → WGmc *liggjan ‘to lie (down),’ but no umlaut results from this since Strong Class 5, like Classes 1 through 4, all³⁸ feature PGmc *e as their present-tense ablaut vowel. Classes 6 and 7, on the other hand, have the potential umlaut target *a as their present-tense ablaut vowel.

Although Strong Class 7 verbs (parallel to the B5a class above) are not widely attested with this infix³⁹—I have allowed for the possibility of them in describing the B6 type even though none occur in the corpus texts—the sources attest a fair number of Class 6 verbs with this infix. Some undergo gemination in parts of the present paradigm due to this *j (parallel to the B5b class of weak verbs, above) and some have roots ending in single *-r that resists gemination (parallel to the B5c class above).

heffen ‘to lift, raise’ (Otfrid 1.4.16) ← WGmc *haffjan

scefphe ‘might make, create (3SG)’ (Otfrid 2.4.33) ← WGmc *skappjē

suarit ‘swears (3SG)’ (Abrogans Pa 130.a) ← WGmc *swarid

scaphentem ‘maker, creator’ (Abrogans Pa 130.e) ← WGmc *skappjand-

sceffento ‘maker, creator’ (MH 8.2a) ← WGmc *skappjand-

arheuit ‘raises up (3SG)’ (Muspilli) ← WGmc *-hafid

³⁸ With exceptions made for Class 2 verbs with long *ū (instead of *eu), which probably were lengthened from zero-grade presents on analogy to Class 1 verbs with *ī ← pre-PGmc *ei; as well as some true remaining zero-grade presents (sometimes called “aorist presents”) like Class 1 *digana ‘to knead’ and Class 2 *trudana ‘to tread.’

³⁹ Old Saxon *uuōpian* and Old English *wēpan* ‘to weep’ (preterite stem *wēop*) ← PGmc *wōpjana are one example, albeit not one with short *a as the root vowel; as Gothic *wopjan* and Old High German *uuuofen* this lexeme has been reclassified as Weak 1.

firsuerie ‘may forswear, commit perjury’ (Otfrid 2.19.7) ← WGmc *-swarjē

kinozsceffendi ‘society, socializing’ (Abrogans K 187.11) ← *ga-nauta-skappjandīn-⁴⁰

It should be noted that, as for the B5b-type verbs that exhibit affrication where they etymologically ought not to, I am putting the would-be geminate consonant in parentheses in my database, etc. *scaphit* ‘creates (SG)’ (Abrogans Pa 131.c), assuming */skap.pfit/ (as opposed to expected */skaf.fit/) has the West Germanic reconstruction “*skap(p)id” in the data, and the intervening consonant is given as “p(p),” as it is unclear whether the affricate was leveled into this 3SG form before or after primary umlaut would have taken place, and it is not the place of this dissertation to make a statement on this one way or the other prior to analyzing the relevant data.

C: Inflectional Trigger

The subgroups of C describe various situations where the phonological segment causing umlaut arises in a piece of inflectional morphology that is not historically specific to a particular declension or conjugation (as the *j of Weak 1 verbs, or *i and *ī of the i-stem paradigm, in B above).

C1: Weak Adjectives (n-stem Inflection)

Although other Indo-European languages exhibit the possibility of assigning n-stem inflection to an o-stem adjective in order to imply particularization or uniqueness (notably seen in the Latin name *Catō* ‘the wise one’ from *catus* ‘wise’; Greek Ἀγαθών ‘the good one’ from ἀγαθός ‘good; etc.), the Germanic languages incorporated this alternative method of declension into the grammatical system to differentiate between indefinite (a/ō- and ja/jō-stem) and definite (n-stem, including jan/jōn-stem) adjectives. This means that any parts of the nominal n-stem

⁴⁰ A feminine īn-stem noun formed from the present participle of the Strong 6 verb.

paradigm (cf. the B4 type above) that enable umlaut will do the same for definite (“weak”) adjectives. Theoretically, this means that any *definite* instance of monosyllabic adjectives with nuclear vowel short *a—such as *alt* ‘old,’ *kalt* ‘cold,’ *uuarm* ‘warm’—should have the ending *-in* in the genitive and dative singular, which contains an umlaut trigger.

However, what the data actually show is that, even as early as these Old High German texts, the o-grade part of the n-stem paradigm (OHG *-an*) is being leveled out into those parts of the paradigm that historically exhibited the reflex of the e-grade (OHG *-in*). The result is that, from all the source texts that fall within the scope of this dissertation, only two tokens occur of potentially umlauting weak adjectives with orthographic *-in*:

aldin ‘old (MASC GEN SG DEF)’ (Isidor 29.252) ← PGmc *ald-inz

aldin ‘old (MASC DAT SG DEG)’ (Isidor 31.262) ← PGmc *ald-ini

The fact that the adjective *ald* ← *aldaz ends in the cluster l+C means that we would not expect to find primary umlaut in such a word anyway, so that these meager data tell us essentially nothing about umlaut.

C2: 2SG and 3SG Present Indicative of Strong Verbs (S6 and S7)

The present-tense indicative paradigm of strong verbs contains the umlaut trigger *-i- in the second- and third-persons singular, which in Strong Classes 6 and 7 (which are characterized by *a as the present-tense ablaut vowel as opposed to the *e found in Classes 1 through 5) enables primary umlaut. S6 is defined as having the root shape (C)(C)aC-, ending in a single consonant, with several exceptions:

- a few verbs with final clusters, such as *waskaŋa ‘to wash’ and *wahasana ‘to grow’

- the verb *standana ‘to stand,’ which is assigned to this class because it historically represents a root *stad-/*stōd-⁴¹ (cf. its preterite OE *stōd*, OHG *stout*) with the Indo-European present-tense marker *n infixed.

with S7 historically defined as having retained Indo-European reduplication in the preterite stem, exhibited in Gothic, but secondarily characterized by the shape (C)(C) \bar{V} (C), where \bar{V} stands for any long vowel besides *ī (S1) and *ū (S2), or otherwise (C)(C)aCC, ending in a consonant cluster. It is the latter shape, the only kind of S7 verb featuring short *a as present-tense ablaut vowel in Proto-Germanic, that concerns us with regard to primary umlaut.

In S6 and S7 verbs that have short *a in the present tense, we find umlaut-favoring environments in the part of the indicative verb paradigm where the unstressed PIE full-grade *e has yielded PGmc *i, e.g.:

	Pre-WGmc	WGmc	Old High German
S6	2SG *-izi → *-isi ⁴²	*faris	*sakis → <i>sahis</i> ‘litigate’ (Abrogans Pa 125.c) *faris þu → <i>feristu</i> ‘you go’ (Otfrid 1.27.45) *fra-dragis → <i>firdregist</i> ‘take away’ (Otfrid 3.19.38)
	3SG *-idi	*farid	*grabid → <i>grebit</i> ‘digs’ (Otfrid 1.1.69) *fra-sakid → <i>farsahchit</i> ‘abandons’ (Abrogans K 4.19) *þwahid → <i>thouuahit</i> ‘washes’ (Abrogans K 5.10)
S7	2SG *-izi → *-isi	*gangis	*waldis → <i>uueltis</i> ‘control’ (Otfrid 1.2.34) *tō-gangis → <i>zuacangis</i> ‘go to’ (Abrogans K 14.18) *gangis → <i>gengist</i> ‘go’ (Otfrid 3.8.33)

⁴¹ PIE *steh₂- ‘to stand’ with a stem extension -t-.

⁴² On analogy to weak verbs where post-root stress prevented the operation of Verner’s Law on these inflectional endings. Contrast with North Germanic 2SG -r ← *-z, where the endings have leveled in the other direction.

	3SG *-idi	*gangid	*waldid → <i>uueltit</i> ‘controls’ (Otfrid 1.1.104) *up-gangid → <i>ufgangit</i> ‘goes up’ (Abrogans Pa 125.d) *bi-haldid → <i>pihaltit</i> ‘keeps’ (Abrogans Pa 127.a)
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An umlaut-favoring environment is not found in any other part of the paradigm of these verbs.

C3: Preterite Optative (Weak 1 Verbs)

Weak Class 1 verbs with heavy stems, such as *namnjan ‘to name, call by a name,’ and some of those with etymologically light stems whose final consonants have since undergone gemination, such as *talljan ← *taljaną ‘to tell,’ tend to have past-tense stems in both the finite preterite (indicative and optative) forms and the past participle that undergo syncope and become monosyllabic.

*namnidā → *namnīdā → *nanta* ‘s/he named’ (e.g. Otfrid 3.22.55)

*talidā → *tallīdā (by analogy) → *zalta* ‘s/he told’ (e.g. Otfrid 3.25.34)

We have seen in the descriptions of umlaut types B5a and B5b above that this syncope of the umlaut trigger *i accounts for the *Rückumlaut* verbs, whose past stems contain unumlauted *a* as the tonic vowel next to unumlauted *e* in the present.

But if primary umlaut was operational *after* this syncope took place, as the *Rückumlaut* situation seems to suggest for a majority of dialects, this would imply that the *preterite optative* ending *-ī-, which is positioned directly after the preterite stem, moves into the ideal umlaut-trigger position after syncope, e.g.:

*namnidī → *namnīdī → *nanti* ‘s/he might name’ (e.g. Otfrid 1.9.10)

*talidī → *tallīdī (by analogy) → *zalti* (e.g. Otfrid 2.11.66)

The failure of umlaut in preterite optative forms such as *nanti* and *zalti* has been an enduring issue in OHG morphophonology.⁴³

C4: Optative of Preterite-present Verbs

Following closely on the heels of the preterite optative of heavy-stem Weak 1 verbs is the present (C4a type) and preterite (C4b type) optative of those preterite-present verbs that feature short *a as their present-tense ablaut vowel.

C4a: Present Optative of Preterite-present Verbs

The Germanic preterite-present verbs are that set of lexical items whose perfect stems and perfect morphology (which in pre-Germanic would have had stative semantics) became grammaticalized as conveying present-tense meaning and are thus identical to the *preterite* stems of normal Germanic strong verbs. For this reason we are able to match up the Germanic preterite-present verbs with the corresponding strong verb classes that have the same shape (using a sample verb from each class to illustrate this comparison):

	Present stem	Pret. sg. stem	Pret. pl. stem	Preterite-present verbs
S1: *-eiC-	*bītaną ‘bite’	*bait	*bit-	*wait ‘know’; *lais ‘know’; *aih ‘to have’
S2: *-euC-	*keusaną ‘choose’	*kaus	*kuz-	*dauh ‘to be useful’
S3a: *-eNC- ⁴⁴	*bindaną ‘tie’	*band	*bund-	*kann ‘know how’; *ann ‘grant’
S3b:	*werþaną ‘become’	*warþ	*wurd-	*dars ‘dare’; *þarf ‘need’

⁴³ See especially Robinson (1980) and Holsinger & Salmons (1999) for more on this topic.

⁴⁴ N refers to either nasal consonant, *m or *n (including */n/ - *[ŋ]).

*-eLC- ⁴⁵				
S4: *-eN- or *-eL-	*nemaŋ ‘take’ *beraŋ ‘carry’	*nam *bar	*nēm- ⁴⁶ *bēr-	*man ‘remember’ *skal ‘be obligated to’
S5: *-eC- ⁴⁷	*lesanaŋ ‘gather’	*las	*lēs- ⁴⁸	*mag ‘be able’
S6: *-aC-	*sakaŋ ‘argue’	*sōk	*sōk-	*mōt ‘be allowed to’
S7: *-aCC- or *-V̄C- ⁴⁹	*waldanaŋ ‘control’	*wewald	*wewald-	N/A

Since the preterite optative of regular strong verbs is formed from the preterite plural stem, even in the singular (e.g. *warþ ‘I became’ vs. *wurd-ī ‘I might become’), we expect the present optative of *preterite-present* verbs, whose present morphology theoretically mirrors the preterite morphology of other verbs, to base its present optative on the preterite plural (historically, zero-grade) stem as well. This is indeed what we find for the majority of these verbs, e.g.:

uuzi ‘may know (SG)’ (Otfrid 2.8.39) ← *wit-ī

sculi ‘should not (SG)’ (Otfrid 5.12.38) ← *skul-ī

⁴⁵ L refers to either liquid consonant, *l or *r.

⁴⁶ Historically, zero-grades *num- ← *nŋ- and *bur- ← *b^hr-.

⁴⁷ In this case, C refers to any non-sonorant consonant.

⁴⁸ Historically, zero-grade *ls-.

⁴⁹ V̄ refers to any long vowel besides *ī or *ū.

However, *mag ‘be able’ unusually exhibits present optative forms reflecting both *mugī- and *magī- in Old High German in both the singular and plural. The latter almost always exhibits orthographic umlaut, e.g.:

megi (3SG) (Muspilli 94b) ← *magī

mekis (2SG) (Abrogans K 231.7) ← *magī-s

megin (1PL) (Otfrid 5.12.17) ← *magī-m

megit (2PL) (Otfrid 1.23.41) ← *magī-d

But not always:

magis (2SG) (Abrogans Pa 128.a) ← *magī-s

C4b: Preterite Optative of Preterite-present Verbs

The preterite stem of most preterite-present verbs can take a number of different forms depending on period and dialect. The preterite stem, used for both the preterite indicative and preterite optative of these verbs, almost always is built with the historical *zero-grade* of the root with the suffix PIE *-t- → Germanic *-þ-/-d-, e.g. *konda* ‘s/he was able, could’ ← *kunn-þ- (cf. Old English *cūþe*). In a well-attested sound change, this suffix *-t-⁵⁰ combines with a preceding *d^h or *d or *t in pre-Germanic, yielding *ss (which in Germanic is simplified to *s after a long vowel or diphthong), giving us forms such as OHG *wissa*, *wessa* ‘s/he knew.’ In some cases, this resulting /ss/ has been partially repaired through the addition of another dental stop, e.g. *wista*, *westa* ‘s/he knew’ (Ringe 2006 p. 88).⁵¹

⁵⁰ Probably identical to PIE *-tó- used to form deverbative adjectives or participles. These have sometimes been incorporated into the paradigm of a verb, e.g. Latin *factum* ‘done’ from *facio*; Old Irish *carthae* ‘loved’ (Proto-Celtic *-ā-t-īos, where passive participles have been assigned īo-stem inflection) from *caraid*; Vedic *śrutá-* ‘heard’ (PIE *k̑lu-tó-) from *śrnoti*; and sometimes not, e.g. Greek βροτός ‘mortal’ (*mr̥-tó-s).

⁵¹ The 2SG present indicative form *weist* ‘you know’ exhibits the same phenomenon, with analogically repaired *waist ← *wais(s) ← PIE *[wójssa] = */wójd-th₂e/ ‘you have seen’; the Greek cognate οἶσθα ‘you know’ also exhibits partial repair of *ss (cf. οἶδα ‘I know’).

As with the present optative of the preterite-present class of verbs, however, one lexeme frequently shows a-grade (IE o-grade) ablaut in these parts of the paradigm where we would expect a zero-grade, namely *mag ‘be able,’ whose attested OHG preterite indicative takes both forms *mahta* ← *mahtā and *mohta*, as if from *muhtā. Perhaps it is this verb’s status as the only preterite-present verb with a Strong Class 5 shape that makes it the outlier in these cases; the only zero-grade form that would have been pronounceable in Proto-Germanic would have been *umg- ← *m̥gʰ-, which does not pattern well at all alongside Class 4-like stems like *þurb- ‘need’ ← *t̥r̥p- and *skul- ← *skl̥- ‘owe,’ and it is easy to understand the extension of the o-grade stem *mag- into traditionally zero-grade parts of the paradigm at a relatively early date.

It is for this reason that we find the following two preterite optative forms in the source texts of this study:

mahti (Isidor 15.109) ‘might be able (3SG)’ ← *maht-ī

mahti (Isidor 23.192) ‘might be able (3SG)’ ← *maht-ī

The consonantal environment, with the classic blocking cluster *ht intervening between trigger *a and target *ī, suggests that primary umlaut is very unlikely here on a phonological level, even beside the question of analogy within the paradigm.

C5: Comparative and Superlative Suffix

Proto-Germanic is reconstructed as having two different sets of stem endings to build the comparative and superlative degrees of adjectives: *-iz- (comp.) and *-is-t- (sup.), which were historically used for adjectival semantics, and *-ōz- (comp.) and *-ōs-t- (sup.), which were adverbial. Whereas the latter set was eventually generalized in much of the Ingvæonic-speaking area (with some relics as exceptions, e.g. English *elder* ← *ald-iz- vs. *older* ← *ald-ōz-), the former are well-attested in High German. At any rate, we do not need to worry about

disambiguating between these two sets in the OHG data because the quality of OHG unstressed vowels is regularly preserved to the extent that it is clear from the orthography whether a given form follows the *i-* or *ō-*variant.

Comparative forms in Proto-West Germanic contain the umlaut trigger in every part of inflection, since they essentially represent derived a/*ō-* (when indefinite) and an/*ōn-*stem (when definite) adjectives:

bezista ‘best (NEUT NOM SG DEF)’ (Otfrid 1.13.10) ← WGmc *bat-ist-an-

hardiro ‘harder (MASC NOM SG DEF)’ (Abrogans K 7.12) ← *hard-ir-an-

pezzirom ‘better (DAT PL)’ (Abrogans K 188.9) ← *bat-ir-an-

starchistin ‘strongest (NEUT DAT SG DEF)’ (MH 21.3) ← *stark-ist-an-

altist ‘oldest, eldest (MASC NOM SG INDEF)’ (*ald-ist-a-)

Syncope of this short *i is not normally a concern even after a heavy root like *hard-, *stark-, or *ald-; however, two examples occur in the corpus:

allibesten ‘best of all (ADV)’ (Otfrid 2.13.33) ← *-bat-ist-um (an adverbial usage of the dative plural adjective)

althrom ‘parents (DAT PL)’ (Abrogans K 82.17) ← *ald-ir-um.

C6: Adjectival -iu

The only parts of the *strong* adjective declension (particularly, the a/*ō-*declension) that can regularly undergo umlaut due to an inflectional ending are in the feminine nominative singular and neuter nominative and accusative plural, where the ending *-iu* has been borrowed from the corresponding pronouns in the same way that the inflectional ending *on*, e.g., *altēr* ‘old (MASC NOM SG INDEF)’ was borrowed from the pronoun *thēr* to replace inherited *-∅* ← PGmc *-az, and how the ending of *altaz* ‘old (NEUT NOM/ACC SG DEF)’ was borrowed from *thaz* to replace

-∅ ← PGmc *-a. These originally pronominal endings do not always occur in the strong adjective inflection—sometimes the inherited morphology prevails, e.g. *alt*—but when *-iu* is used, it may theoretically trigger umlaut whenever short *a occurs in the preceding syllable. However, this is seldom the case. Braune (2004) explains this as analogy on the model of the rest of the paradigm:

“Die Endung *-iu* sollte vorhergehendes *a* eigentlich umlauten; doch ist der Umlaut (unter Einwirkung der übrigen Formen) nicht eingetreten. Nur bei *al* ist frk. *elliu*, *ellu* die regelmäßige Form (T[atian], O[tfrid], Will[iram]) gegen obd. *alliu* (doch vereinzelt auch obd. *elliu*).”⁵² (§248 Note 6)

Otfrid’s *Evangelienbuch* is the only source in the present corpus that regularly has *elliu* or *ellu* for *all* ‘all’ in these parts of the paradigm, e.g.:

ellu ‘all (FEM NOM SG)’ (Otfrid 2.1.4) ← *all-iu

ellu ‘all (NEUT NOM PL)’ (Otfrid 3.13.32) ← *all-iu

ellu ‘all (NEUT ACC PL)’ (Otfrid 3.14.52) ← *all-iu

The diphthong *-iu* in this bit of morphology is the only umlaut trigger that does not take the form of a simple vowel *i(:) or semivowel *j. The precise phonetic nature of this *-iu* is uncertain.

Because diphthongal OHG /iu/ = <iu> generally follows from PGmc *eu (with full-grade ablaut) that has been subjected to height harmony (e.g., WGmc *kiusid ‘chooses’ ← PGmc *keusidi), unstressed *iu* rarely occurs, and diphthongal *iu* is not a traditional umlaut trigger. It could even, perhaps, represent front-rounded [y:]. Another consideration is that this attachment of

⁵² [The ending *-iu* should actually umlaut preceding *a*; however, umlaut (by the influence of the remaining forms) does not occur. It is only in *al* that the regular form is Franconian *elliu*, *ellu* (Tatian, Otfrid, Williram) as opposed to *alliu* (although scattered instances of *elliu* occur in Upper German).]

pronominal *-iu* to strong adjectives is not a general West Germanic phenomenon, and thus could theoretically post-date umlaut in part, which could account for the severely limited scope in which it is observed to effect umlaut in OHG.

D: Derivational Trigger

Under various sublevels of type D I have classed all derivational suffixes containing an umlaut trigger **i(:)* or **j* as their first vowel. The order of the sublevels (with each suffix—or in some cases family of suffixes—receiving its own sublevel) is nothing more than the order in which I encountered these in the source texts as I went through them. Since these are mostly self-explanatory I will just list them here and provide one example from the dataset of each:

D1: **-iþō-* (a feminine *ō*-stem substantivizing suffix, especially for abstract nouns)

angidha ‘tightness, anxiety’ (Abrogans K 6.13) ← **ang-iþō-*, from PGmc **anguz* ‘narrow’

D2: **-īga-/īgō-* (an adjectivizing suffix)

mahtig ‘powerful, mighty’ (Otfrid 5.9.25) ← **maht-iþō-*, from PGmc **mahtiz* ‘power’ (cf. **mag* ‘be able’)

D3: **-līka-/līkō-* (an adjectivizing suffix from **līka* ‘body, shape’)

baldlichō ‘soon, quickly (ADV)’ (Otfrid 1.27.40) ← **bald-līkō*

D4: **-inga-* (a nominalizing suffix)

pfantinc ‘penny’ (Abrogans Pa 129.e) ← **pand-inga-* (from Latin *pondus* ‘a weight, pound’)

D5: **-ilīna-/īlan-* (diminutive suffixes)

uualthilin ‘forests (NEUT PL)’ (Abrogans K 204.8) ← **wald-ilīna-*, from PGmc **walduz* ‘forest’

D6: *-nisja-/*-nisjō- (a nominalizing suffix)

firstantnisse ‘understanding’ (Otfrid 1.1.40) ← *-stand-nisja-, from PGmc *fra-standana
‘to understand’

D7: *-iska-/*-iskō- (an adjectivizing suffix)

frenkisgon ‘Frankish, Franconian (FEM DAT SG DEF)’ (Otfrid 1.1.34) ← *frank-isk-an-

D8: *-injō- (femininizing suffix; historically a jō-stem noun built onto the oblique grade of a masculine n-stem noun)

forasagin ‘prophetess (NOM SG)’ (Otfrid 1.16.3) *-saginjō-; cf. OHG n-stem *forasago*
‘(male) prophet’

My intention has been to draw a distinction between the historically composite nouns, adjectives, and verbs of the A type from these derived forms in D through the requirement that type-D words contain the umlaut trigger in a suffix that is *still productive* in the Old High German period and still a separate morpheme as perceived by a native speaker. Not having native speakers to survey in order to determine for sure which derivational element belongs in A or D, I have decided to make these judgments about how productive a derivational suffix is based on the attested quantity of different roots to which each suffix is attached. Derivational suffixes, or what were historically derivational suffixes, belonging in the A type (such as *megin* ‘power’ ← *mag-in-a) occur only in a small handful of nouns in the attested language, whereas those classified in D are abundant in OHG texts.

E: Clitic Trigger (Otfrid only)

Otfrid’s *Evangelienbuch* has the remarkable feature that short *a can successfully undergo umlaut if the umlaut trigger *i is contained in the same *prosodic* word, and does not necessarily need to be the same lexical word. In other words: a pronoun such as *ih* ‘I’ or *iz* ‘it,’

when directly following a monosyllabic word with *a (always a finite verb) may trigger umlaut in that word. Within the scope of the present corpus, this E-type of umlaut is peculiar to Otfrid.⁵³ There are a total of 20 successful instances of umlaut over word boundaries in the Vienna MS (Otfrid V), which can be found in 3.3, the section containing a morphology-based analysis of Otfrid.

The clitic trigger is also the only class of primary umlaut trigger for which the present study does *not* take into consideration tokens of *unsuccessful* umlaut. In other words, an instance like

Otfrid 2.14.89: “*Scal iz krist sîn, frô mîn? ih sprichu bî thên uuânin*”

“Is it supposed to be Christ, my lord? I am speaking in fantasies,”

in which primary umlaut triggered by the vowel of the clitic pronoun is theoretically possible but happens not to occur here, is not entered as a token into the dataset. It cannot be guaranteed to convey meaningful information about umlaut across *l since type-E umlaut is infrequent to begin with. Successful type-E tokens, on the other hand, are matriculated because they offer meaningful phonological data (e.g. *meg ih* “I am able” (Otfrid V 1.4.55) showing umlaut across intervening *g*).

2.2.f Miscellaneous Grammatical Information

In addition to the preceding data on potentially umlaut-friendly tokens, my dataset keeps track of all possibly relevant grammatical information about each token. These categories are as follows:

⁵³ A handful of other instances of umlaut across word boundaries can be observed, in the Bavarian Psalm 138 and in the OHG *Tatian*. Furthermore, Otfrid exhibits phonological phenomena caused by clitics in other ways, e.g., *theih* ‘that I ...; dass ich ...’ (Otfrid 1.23.64) ← *þat ik; these are explored in detail by Somers Wicka (2009; especially Chapter 3). Similar clitic phenomena are found all throughout West Germanic; cf. also Middle Dutch *eest = is het* ‘is it,’ exhibiting open-syllable lengthening and lowering; Middle High German *deist = daz ist* ‘that is.’

- “Type”—the part of speech.
 - Noun—with a substantive class, case, number, person, and gender.
 - Adjective—with a substantive class, case, number, person, and gender.
 - Adverb—nothing further is recorded.
 - Verb—meaning a finite verb, belonging to a verb class (see below), conjugated for number, person, tense, and mood.
 - Participle—with a verb class and a “tense,” but no mood or person; whether the participle (either an *nd*-stem adjective, if present, or an *a/ō*-stem adjective, if past, strictly speaking) is declined in a particular case or number is irrelevant for umlaut purposes and is not recorded.
 - Infinitive—with a verb class only.

- “Gender”
 - Masculine
 - Feminine
 - Neuter

For adjectives independent of agreeing nouns for which the gender is ambiguous, e.g. *mahdic* ‘powerful’ (Abrogans K 41.9) glossing *potens* (which could be masculine or feminine nominative singular, or neuter singular nominative or accusative), the masculine is assumed by default.

- Class of Substantive
 - *a/ō*-stem
 - *ja/jō*-stem
 - *i*-stem

- īn-stem
- n-stem
- jan/jōn-stem
- s-stem

- Case of Substantive

- Nominative
- Accusative
- Genitive
- Dative

For adjectives independent of agreeing nouns for which the case is ambiguous, e.g. *salauui* ‘dark’ (Abrogans K 10.10) glossing *atrum* (which could be masculine accusative singular, or neuter singular nominative or accusative), the nominative is assumed by default.

- Number of Substantive

- Singular
- Plural

- “Degree”—if comparative or superlative

- Comparative
- Superlative

There is no “positive” degree; this category is left blank for any adjective that is not explicitly comparative or superlative.

- Class of Verb; only the following occur exhibiting primary umlaut in some form:

- “S3”: Strong Class 3 verbs

- “S6”: Strong Class 6 verbs
- “S7”: Strong Class 7 verbs
- “W1”: Weak Class 1 verbs
- “W2”: Weak Class 2 verbs
- “PP”: Preterite-present verbs
- Tense of Verb
 - present tense
 - past tense
- Mood of Verb
 - IND: indicative mood
 - OPT: optative (“subjunctive”) mood
 - IMP: imperative mood
- Person of Verb
 - “1”: first-person subject
 - “2”: second-person subject
 - “3”: third-person subject
- Number of Verb
 - SG: singular subject
 - PL: plural subject

Chapter 3: Otfrid

3.1 Otfrid V: Background Information

The *Evangelienbuch* of Otfrid von Weißenburg is a poetic harmony of the gospel stories on the life of Christ⁵⁴ in 7,104 rhyming couplets—an original composition from the South Rhenish Franconian dialect area. It exists, to varying degrees of completeness, in four different manuscripts. “Of these the Vienna manuscript (V) is complete; its text is the best, and from it all the other manuscripts were copied” (Bostock 1955 p. 169). The manuscript referred to is Codex Vindobonensis 2687 and is the one from which the data of the present study are gathered, via Kleiber and Hellgardt’s (2004a) faithful transcription of the entire manuscript text. It is this “V” MS (via that edition) that I will refer to in the following as “Otfrid V” or simply “Otfrid.”

This is a good point to note that I also made extensive use of Piper’s (1882) edition (with occasional modification of the V text but, more importantly, comprehensive punctuation and marking of vowel length, which assisted me greatly in reading the text) and also his accompanying glossary (Piper 1887), without which I would have had great difficulty identifying many words and their function in the sentence.

The *Evangelienbuch* of Otfrid and all of its known MSs originate in the last third of the 9th century. Of the V MS, Bostock writes that

“five scribes can be distinguished, of whom the third wrote only a few lines but corrected the whole text after the completion of the work, altering, adding, and deleting letters, and adding as aids to the reader the accents and dots” (p. 169).

⁵⁴ Though not, in a strict sense, a harmony of the gospel text itself (like the *Tatian*), a distinction made by Bostock (p. 174).

However, since this dissertation has a broad focus on Old High German i-mutation as a whole, in analyzing the Otfrid V data I do not go to this level of detail in keeping all five of these scribes separate. A further study specifically on i-mutation in V could easily be performed on the data gathered for this dissertation. The idea has apparently been circulated that this emending scribe is identical to the author, Otfrid, himself; but this is a “a pleasant but unproven surmise” (ibid.).

This makes Otfrid V the latest by a significant interval of all the Old High German texts used in the corpus of this dissertation. It is also the longest by far, and—unlike the two Abrogans MSs and the Murbacher Hymnen, which are OHG glosses of a Latin original—is an original German composition. Its capacity as the latest member of the present corpus, as well as its provenance near the geographical center of the Continental West Germanic-speaking area, mean that we expect its phonology to conform most closely to that of modern dialects and especially to the modern standard variety. Otfrid’s unique purpose in this corpus is therefore twofold,

- (1) to afford a broad look at the situation of umlaut in a northern dialect of OHG, from which—owing to the sheer vastness of the text—we will be able to make relatively confident conclusions; and
- (2) to serve as a late-OHG “control” in a dissertation whose professed aim is to look at the primary umlaut situation in earlier texts.

In other words, the idiosyncrasies of earlier texts will be all the more salient when compared to the data in Otfrid.

3.2 Otfrid V: Phonological Analysis

Otfrid V contains a total of 2,008 tokens that could—owing to their historical phonological structure—potentially undergo umlaut of short *a. The most basic statistic about these tokens is the success rate of umlaut. In other words: in what percent of these 2,008 tokens

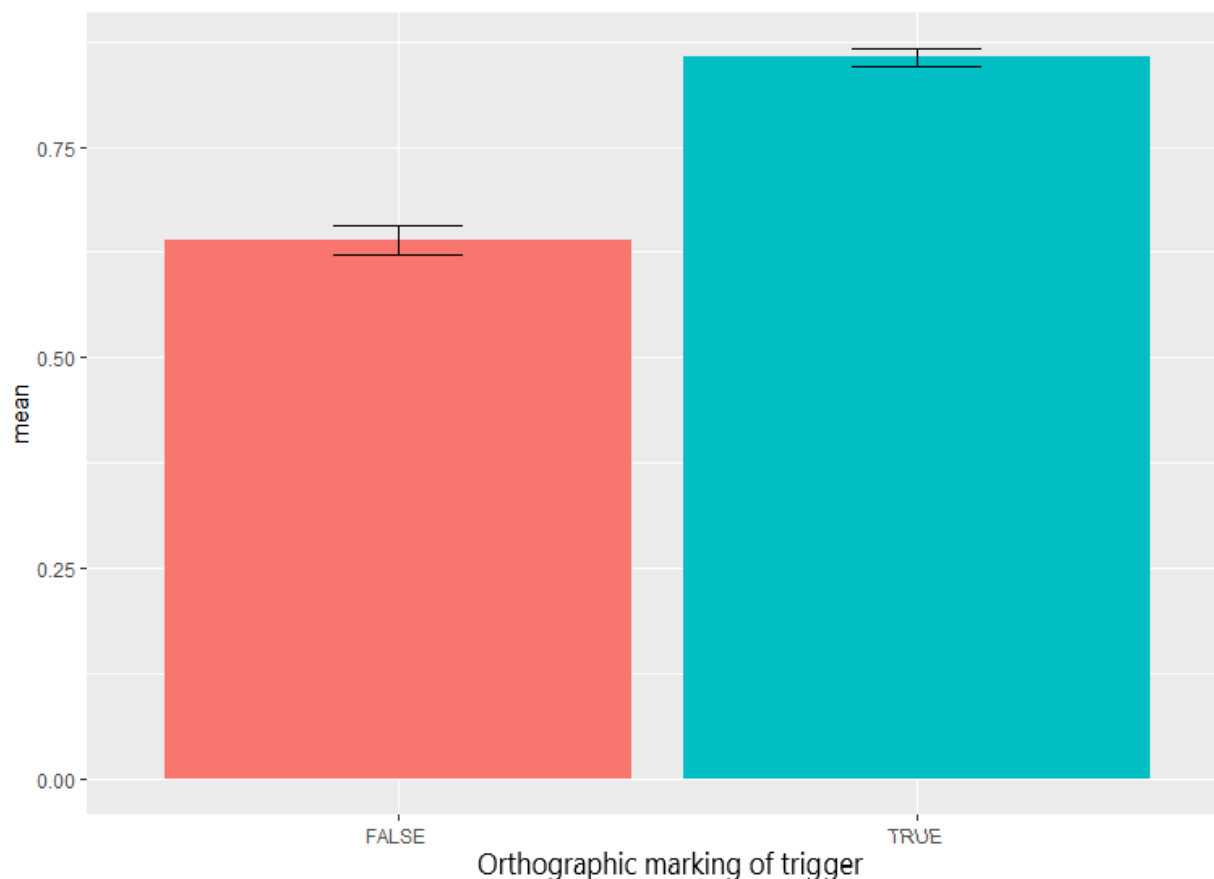
is orthographic umlaut shown as <e> or something similar (umlaut = TRUE) as opposed to the historical pre-umlaut sound, written <a> (umlaut = FALSE)?

Orthographic umlaut	Number of tokens	Percentage of tokens
FALSE	456	22.71%
TRUE	1552	77.29%

So, primary umlaut is successful (at least orthographically) in more than three-quarters of potentially umlautable tokens in the V MS of Otfrid's *Evangelienbuch*.

3.2.1 Otfrid V: Phonological Analysis—Orthographic Trigger

The first variable we will apply to the above breakdown of umlauting vs. non-umlauting tokens is the Boolean variable of whether the trigger segment, historically */i(:)/ or */j/, is written as <i> (or similar; see **2.2.c**) in the source text (trigger = TRUE) or if it is absent (trigger = FALSE). We observe the following:



Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
FALSE	775	64.00 % \pm 1.73
TRUE	1233	85.64 % \pm 1.00

An umlaut token is considerably more likely to exhibit successful umlaut orthographically if the trigger is also orthographically recorded.

From a certain viewpoint, this finding is counter-intuitive; we may have assumed that loss of post-consonantal *j would precipitate the phonologization process of primary umlaut (as Twaddell (1938) claims about the phonologization of umlaut in general). The reality of the situation is that, while that may very well be one of the general principles by which phonologization works, a great many of the tokens that are classified as FALSE with respect to orthographic trigger are missing <i> not because of a sound change that hastened the

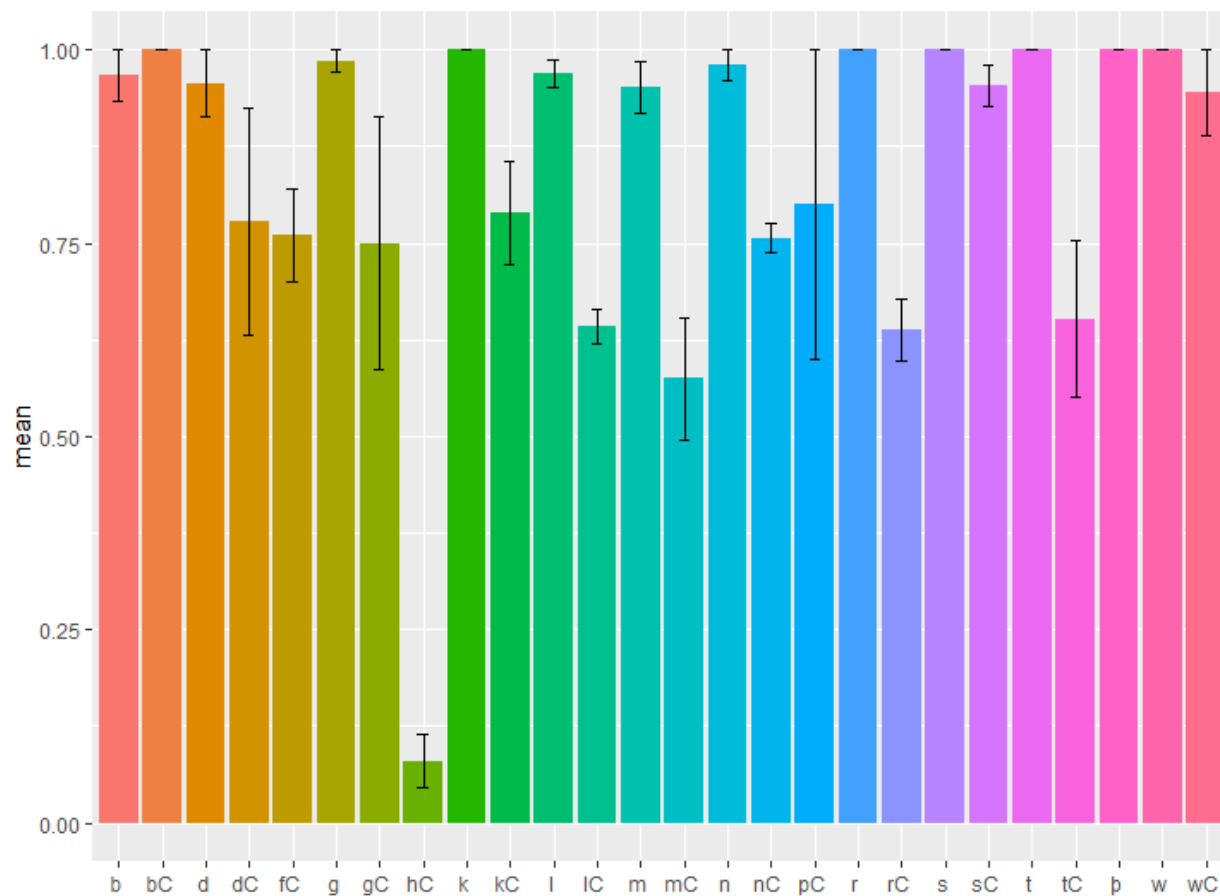
phonologization of umlaut but rather of one that mostly *preceded* umlaut: the syncope of short *i, especially in the past stem (in *-id-) of Class 1 Weak verbs. To get a better look at the role in phonologization played by other sound changes, such as loss of post-consonantal *j,⁵⁵ we would need to go a step further than this dissertation has been built to go, and control for the various types of trigger loss. It would be much more meaningful to interpret these data after *excluding* tokens with obviously syncopated umlaut trigger (e.g. the *Rückumlaut* verbs in the preterite or past participle).

For this reason—that is, since tokens with missing triggers can frequently represent tokens whose short *i was lost to syncope even before the umlaut period began—I will perform some of the following analyses twice: the first time with all tokens, and the second time *only* with tokens whose trigger segment is still orthographically marked as <i> (of which there are plenty). This is most reliable way in which I can proceed to interpret the data and confidently make assertions about tokens whose trigger phoneme was still present at the time of the operation of umlaut (since it is still present at the time of writing).

3.2.2 Otfrid V: Phonological Analysis—Intervening Consonant(s)

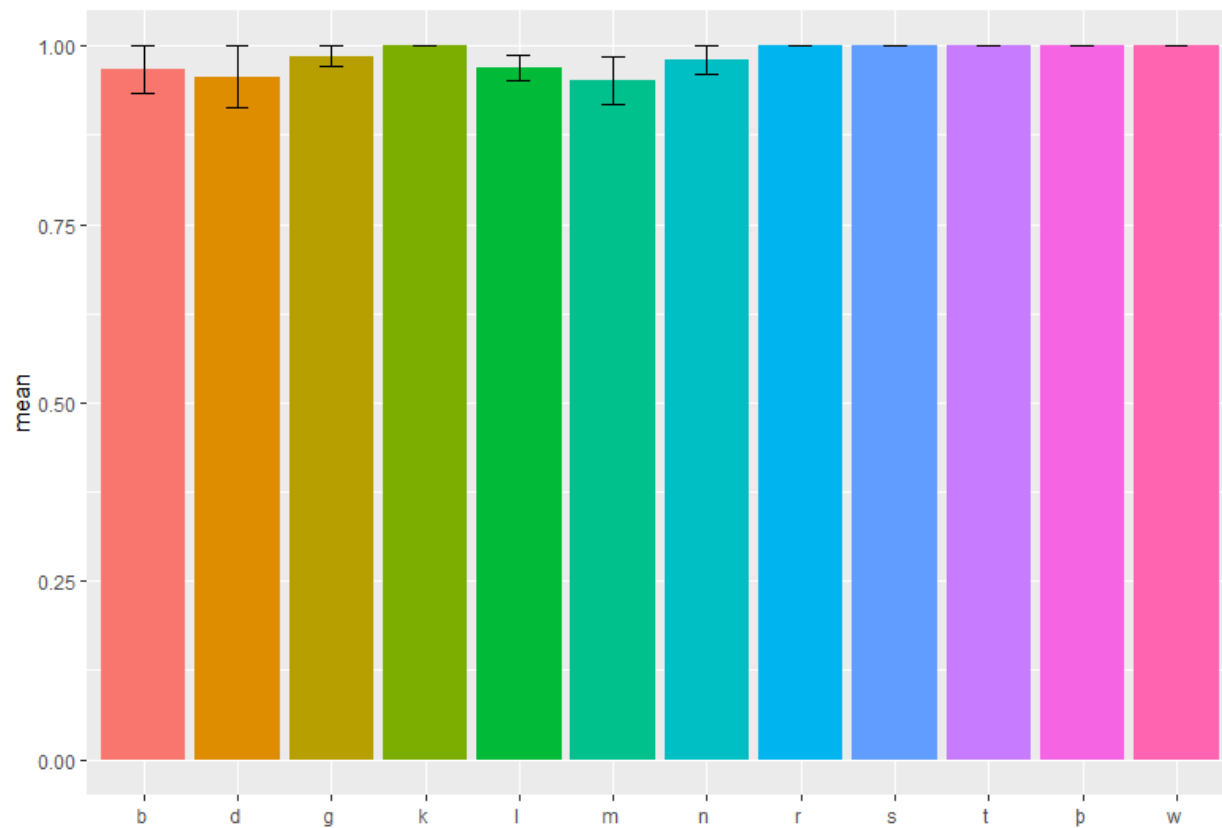
The next step is to look at percentage of umlaut success as a function of the phonological environment (i.e. the consonant or consonant clusters intervening between trigger *i(:) or *j and target *a). We are encountered first by the following result:

⁵⁵ Twaddell is primarily concerned with the merging of the unstressed vowels OHG /i/ and /a/ into MHG /ə/; and, while the theoretical grounds underlying this are sound, primary and even secondary umlaut had probably evolved from phonological to grammatical rules well before this.



The feature of Otfrid’s umlaut that this graphic most immediately conveys is the extreme rarity of umlaut across *-hC-*, the classic “blocking environment” for primary umlaut. Looking closer at the individual data, it turns out that there are only 6 such tokens that umlaut across **hC*, all of which belong to either the *maht* ‘power’ lexeme (or something derived from it) or the *uuahsan* ‘to grow’ lexeme. It looks like there may be other patterns, so let us rearrange the data by separating singleton consonants from consonant clusters.

Singleton consonants intervening between trigger and target:

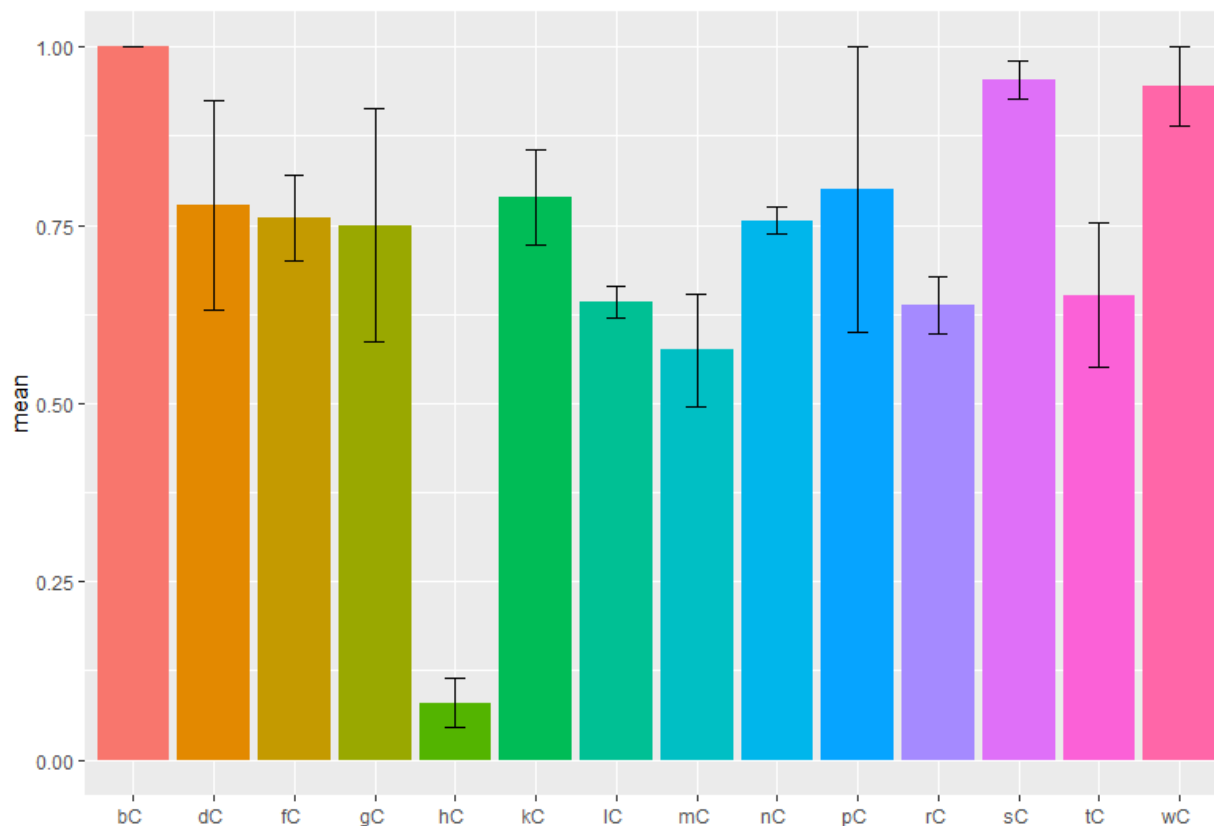


Single consonants (WGmc)	# of tokens	Success of umlaut ± S.E.
b	30	96.67 % ± 3.33
d	23	95.65 % ± 4.35
g	70	98.51 % ± 1.43
k	12	100 % ± 0.00
l	96	96.88 % ± 1.79
m	42	95.24 % ± 3.33
n	51	98.04 % ± 1.96
r	88	100 % ± 0.00
s	3	100 % ± 0.00

t	10	100 % ± 0.00
þ	131	100 % ± 0.00
w	32	100 % ± 0.00

Consonant clusters intervening between trigger and target, listed by first coda consonant

of the target-vowel syllable:

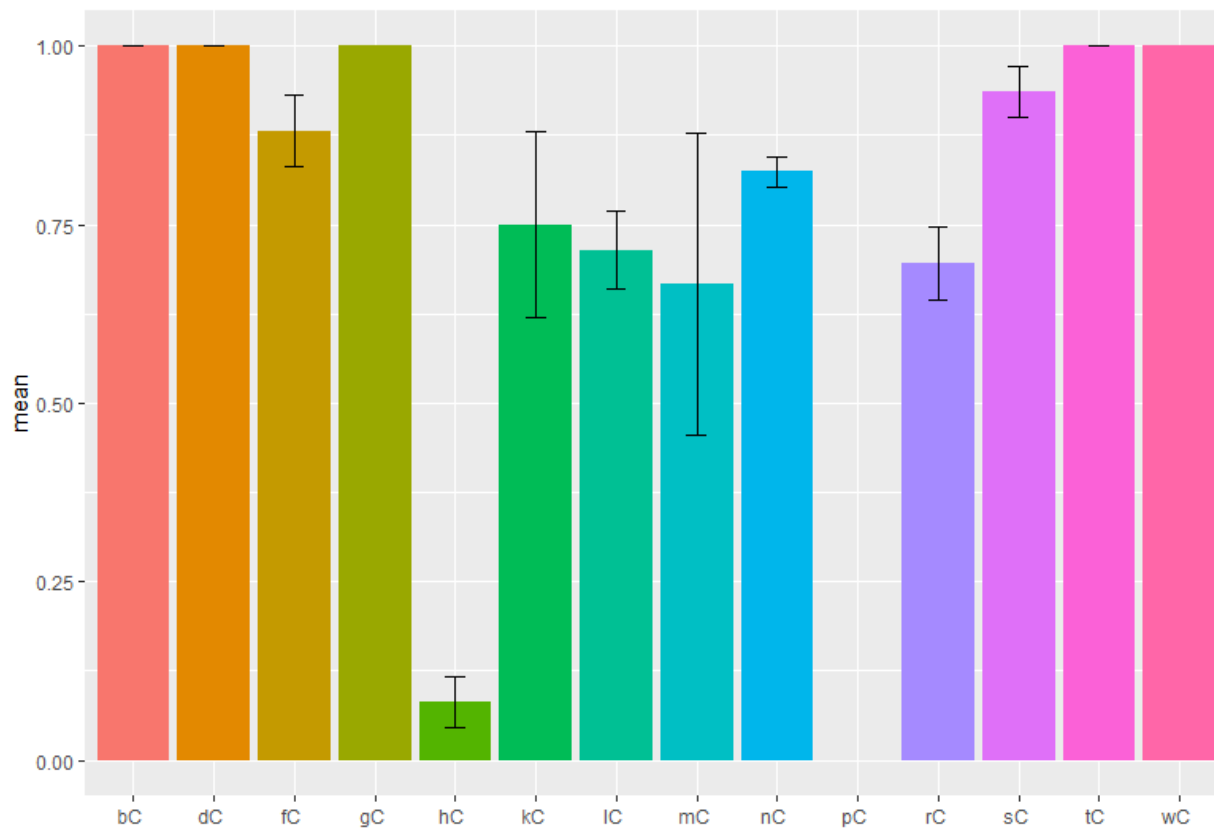


Single consonants	# of tokens	Success of umlaut ± S.E.
bC	4	100 % ± 0.00
dC	9	77.78 % ± 14.70
fC	50	76.00 % ± 6.10
gC	8	75.00 % ± 16.37
hC	63	7.94 % ± 3.43

kC	38	78.95 % ± 6.70
lC	447	64.21 % ± 2.27
mC	40	57.50 % ± 7.92
nC	512	75.59 % ± 1.90
pC	5	80.00 % ± 20.00
rC	138	63.77 % ± 4.11
sC	65	95.38 % ± 2.62
tC	23	65.22 % ± 10.15
wC	18	94.44 % ± 5.56

With these data we can substantiate a clear pattern in Otfrid that umlaut across consonant clusters tends to be less successful than umlaut across a single consonant. Another way of looking at this, judging by the extreme rarity with which single consonants follow an orthographically non-umlauted vowel, is that there is a strong correlation between the umlauting syllable containing at least one coda consonant and its vowel not undergoing umlaut.

There is one issue with the above data: the success rate for umlaut across multiple consonants, in addition to being lower on average than the same metric across a single consonant, tends to have a much greater margin of error. Suspecting that the low confidence level in these averages (i.e. their high variability) might be the result of the fact that this analysis is inclusive of those many heavy-stem Class Weak 1 verbs that have undergone syncope of the vowel *-i- in the past stem, I decided to acquire the same data excluding tokens in which orthographic trigger is absent:



Single consonants	# of tokens	Success of umlaut \pm S.E.
bC	2	100 % \pm N/A
dC	6	100 % \pm 0.00
fC	42	88.10 % \pm 5.06
gC	1	0.00 % \pm 0.00
hC	61	8.20 % \pm 3.54
kC	12	75.00 % \pm 13.06
lC	70	71.43 % \pm 5.44
mC	6	66.67 % \pm 21.08
nC	319	82.45 % \pm 2.13
pC	1	0.00 % \pm N/A

rC	82	69.51 % ± 5.12
sC	47	93.62 % ± 3.60
tC	9	100 % ± 0.00
wC	1	100 % ± N/A

In fact, this does not seem to change the average error appreciably.

As mentioned above, the clearest pattern in the phonological data from Otfrid is that orthographic umlaut is extremely likely to occur across anything reconstructed as a *single* consonant in West Germanic. Note that this includes the output of the High German Consonant shift: the labial *ff* *[ff] ← *p, the coronal *zz* *[ʒʒ] ← *t, and even the velar *hh* *[xx] ← *k do not appear to inhibit primary umlaut in Otfrid V any more than true singleton consonants such as *m* *[m] and *l* *[l] and *d* *[d] ← *p.

On the other hand, umlaut is clearly inhibited to a considerable degree that correlates with intervening *clusters*, or—put differently—with a non-empty coda of the syllable containing the trigger vowel *a. Some coda consonants like *b and *d appear not to inhibit umlaut, although there are relatively very few tokens for these (2 and 6, respectively) so it is important not to read too far into this. The cluster *hC fulfills its role as a “blocking environment” and appears to inhibit umlaut more than any other consonant or cluster.⁵⁶ Other clusters, however, seem to show blocking as well, albeit less dramatically: *mC (though with only 6 tokens, if we are looking only at data with orthographic trigger), *rC, *lC, and *kC.

⁵⁶ Interesting though it would be to compare the umlaut-inhibiting effects of *hC (or coda *h in the umlauting syllable), such a comparison is not possible because single *h* ← WGmc *h never occurs between umlaut trigger and umlaut target in Otfrid. It does in some of the other texts in the present corpus, almost always in the verb *slahan* ‘to hit, smite, kill’ or one of its compounds; but neither *slahan* nor its intensive *ir-slahan* occur in Otfrid in the 2SG or 3SG present indicative, the only parts of the Strong Class VI paradigm in which umlaut of short *a is possible.

When we look at the individual tokens for these, we find that all of the umlaut-resisting examples of *mC and *kC, e.g.,

nanti ‘might name (SG)’ (Otfrid 1.9.10) ← *namnidī

thaktin ‘might cover (PL)’ (Otfrid 4.5.29) ← *þakidīn,

have in common a particular morphological construction: the W1 preterite optative. This will be treated in more detail in **3.3.a** below, but we should take it into consideration now as a caveat against concluding anything about *mC or *kC as umlaut blockers in Otfrid.

On the other hand, some examples of umlaut blocking across *lC and *rC—e.g.,

baldi ‘haste’ (Otfrid 4.13.30) ← *bald-īn-

sarphidu ‘sharpness’ (Otfrid 3.17.34) ← *skarp-īþō-

—appear to be totally phonologically motivated.

3.3 Otfrid V: Morphological Analysis

We now turn to the typology of umlaut triggers laid out in **2.2.e** above to test whether reduced paradigmatic presence of the trigger segment patterns with reduced success rate of orthographic umlaut. Put another way: if a lexeme contains an umlaut trigger in only some of its forms (e.g. comparative adjectives, WGmc *ald-ir-an- ‘older’ as opposed to *ald-a- ‘old’; or inflected strong verbs, *grab-id ‘digs (3SG)’ as opposed to *grab-u ‘dig (1SG)’), will these opportunities for umlaut be less successful than lexemes containing an umlaut trigger throughout the paradigm (e.g. ja/jō-stems, *baddja- ‘bed’; or lexemes with an umlaut trigger in the root, *angil-a- ‘angel’)?

A quick note on the E level (trigger in a postclitic pronoun): as I said above in **2.2.e** when defining the E-type—all of whose successful instances in this corpus occur in Otfrid—this is the only trigger type for which I only collected instances of umlaut success and no instances of

umlaut failure. This is because the number of successful instances is so low, and the number of unsuccessful instances so high (and so likely to be “corrected” by a pedantic scribe), that—for the purposes of this dissertation—the clitic umlaut trigger is more a curiosity offered by Otfrid (and occasionally in other texts not in this corpus, such as in the OHG *Tatian* and the Bavarian Psalm 138) than a full-fledged fifth category presenting enough tokens to make a statistically meaningful statement. As it happens, there are 20 successful instances of clitic umlaut in Otfrid, and more information on them and on cliticization in Otfrid in general can be found in Somers Wicka (2009).

It is therefore by design that the E-type in the table and graph below is portrayed to have 100% success. If we took into consideration the many instances in Otfrid where the scribe has the option of writing clitic-based umlaut but does not, e.g.

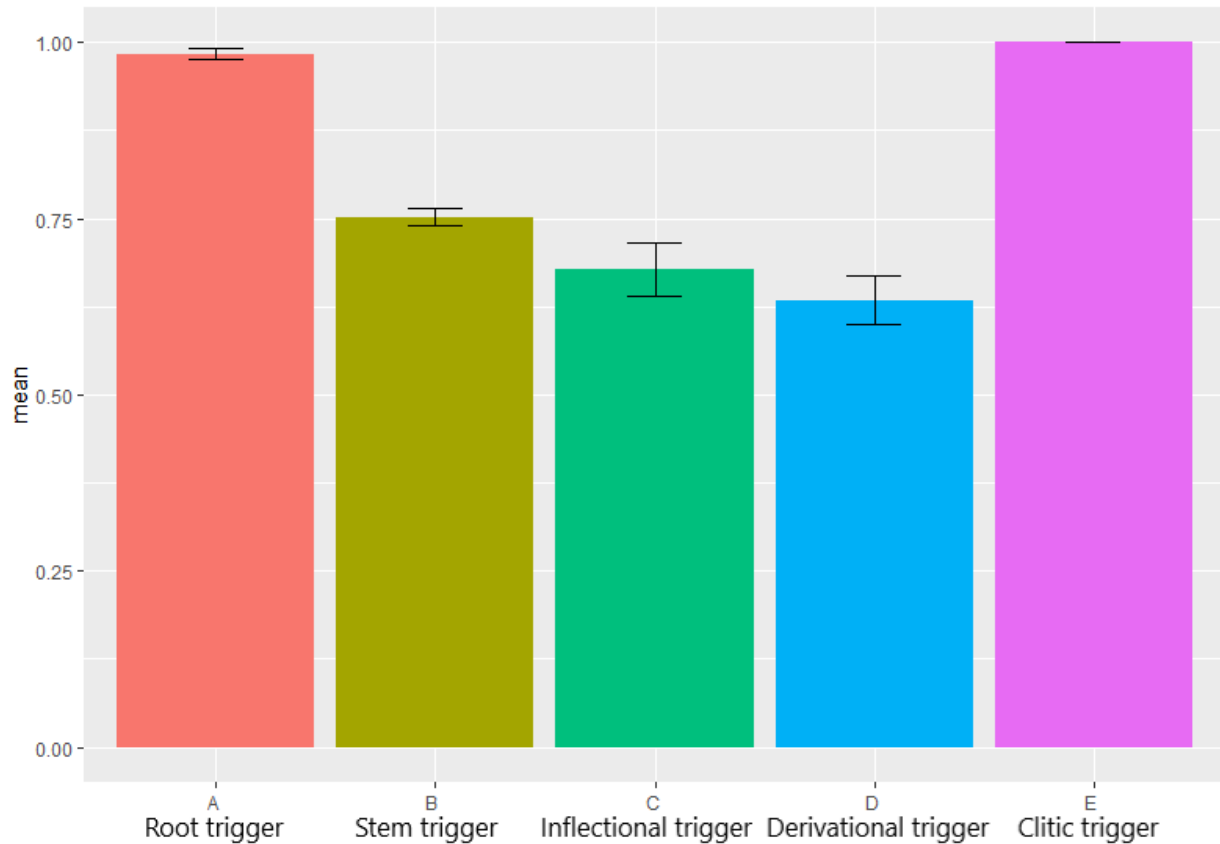
Otfrid 2.14.89: “*Scal iz krist sîn, frô mîn? ih sprichu bî thên uuânin*”

“Is it supposed to be Christ, my lord? I am speaking in fantasies,”

the success rate of the E-type would shrink dramatically. It would be a difficult task to make a judgment on whether each potential token in fact contained a clitic pronoun, or if the pronoun might actually carry its own stress,⁵⁷ since it is circular to say that all tokens with *e* show cliticization and tokens with *a* do not umlaut because, for whatever reason, they are not true examples of cliticization. But since the scope of the present project is a broad sweep of Old High German texts, especially earlier texts, combing through Otfrid V to obtain a precise statistic on how many failures of clitic umlaut there are is not part of this dissertation, and so the 100% rate of umlaut success in the following graph and table is intended as a dummy indicator to remind

⁵⁷ Again, any such undertaking should refer to Somers Wicka (2009) for the groundwork on how to go about that.

the reader of the presence of clitic umlaut and not as any kind of accurate statistic on the success of Type E umlaut in Otfrid.



Level	# of tokens	Success of umlaut \pm S.E.
A (root)	302	98.34 % \pm 0.74
B (stem)	1348	75.22 % \pm 1.18
C (inflection)	152	67.76 % \pm 3.80
D (derivation)	186	63.44 % \pm 2.54
E (clitic)	20	100 % \pm 0.00

Even from a first glance it is clear that the umlaut success rate decreases appreciably from A (trigger in the root itself) to B (trigger in a stem ending) to C (trigger in an inflectional ending not specific to a particular declensional or conjugational class) to D (trigger in a

derivational suffix). Close to 100% of root-trigger tokens in Otfrid exhibit orthographic umlaut.

There are only 5 that do not. They are the following:

palinza (Otfrid 1.5.9) ← WGmc *pal(a/i)ntjō- (?) ← Latin *palātium* ‘palace’

namiti (Otfrid 1.9.14) ← WGmc *nam(a/i)dīn- (?); related to PGmc *namō̄, oblique
*nam(a/i)n- ‘name’

gatingon (Otfrid 1.22.21) ← WGmc *gad(a/i)-linga- (?) ‘relative, kinsman’ ← PIE
*g^hed^h- ‘to join, unite, bind’

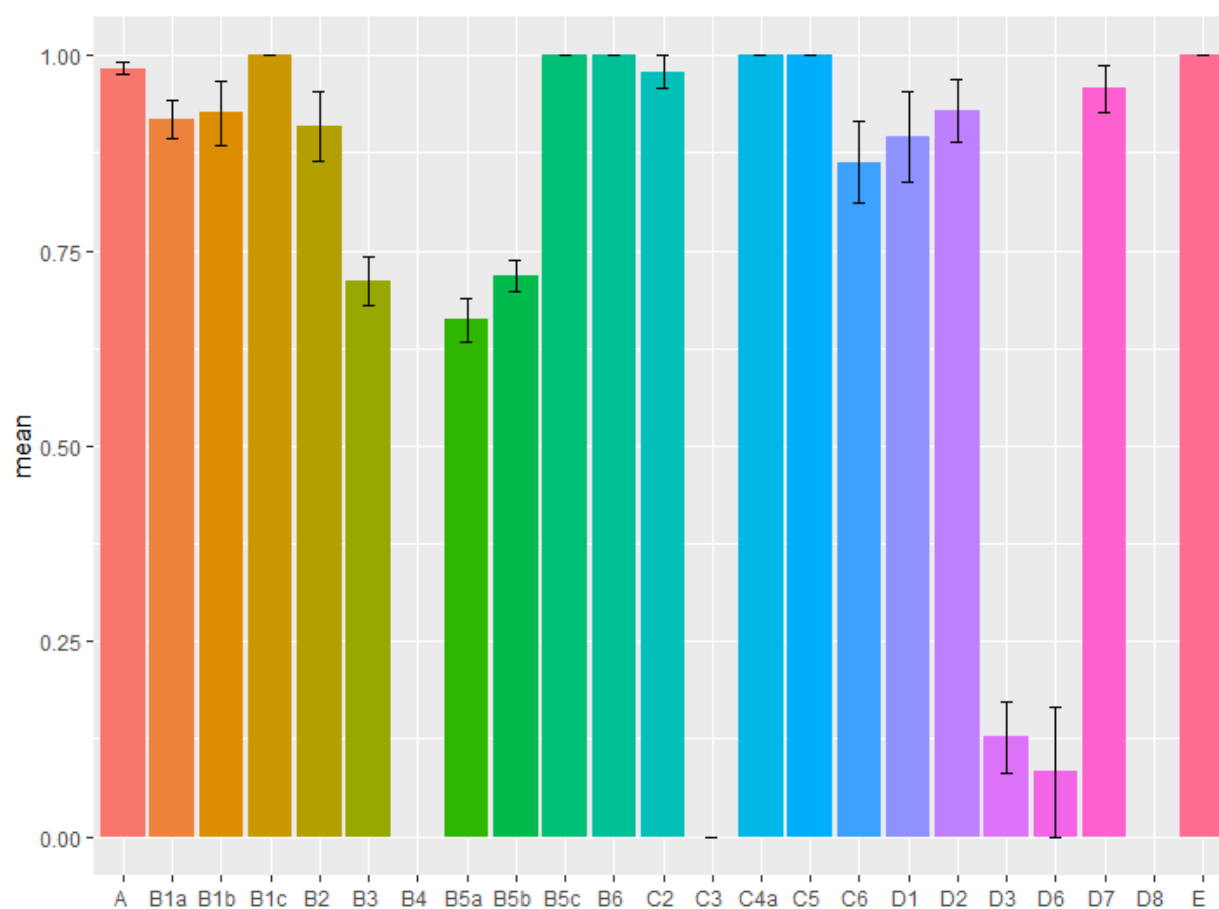
gabissa (Otfrid 1.27.66) ← WGmc *gabisjō- (?) ‘husk, chaff’

namati (Otfrid 2.23.26) ← WGmc *nam(a/i)dīn- (?); related to PGmc *namō̄, oblique
*nam(a/i)n- ‘name’

Interestingly, four of these tokens have a tenuously reconstructed second-syllable vowel for West Germanic or Germanic; *palinza* is a loanword and shows plenty of variety in its shape across Continental West Germanic; *namiti*, or *namati*, is an abstract feminine ī-stem noun constructed from the n-stem *naman-/namin-* and likewise exhibits variation (even within Otfrid) with respect to which vowel is generalized after the tonic syllable; and the second vowel of *gatingon* ‘relatives (DAT PL)’ could either reflect disagreement in the historical linking vowel (Gmc *a vs. *i ← PIE *o vs. *e) or possibly an unhistorical epenthetic vowel introduced between /d/ and /l/. The etymology of *gabissa* is entirely unknown; I have reconstructed a tentative West Germanic form as a jō-stem based on its feminine gender and orthographic double *ss*, but this reconstruction—especially the quality of the post-tonic vowel—remains unverified. The fact that all five of Otfrid’s non-umlauting A-type tokens have etymologically dubious post-tonic vowels meshes with our expectation that as few tokens as possible avoid undergoing primary umlaut in type A (root trigger).

3.3.a Otfrid V: Morphological Analysis—Umlaut by Morphological Sublevel

At this point we can sort by morphological “sublevel” to tease apart the umlaut success rates in Otfrid from the many different subtypes of B, C, and D (while A and E, having no subdivisions, remain unchanged):



Sublevel		# of tokens	Success of umlaut \pm S.E.
B (stem trigger)	B1a: ja/jō heavy stem	123	91.87 % \pm 2.47
	B1b: ja/jō light stem	41	92.68 % \pm 4.12
	B1c: ja/jō root in *-r	23	100 % \pm 0.00
	B2: ĩn-stem	44	90.91 % \pm 4.38
	B3: i-stem, etc.	212	71.23 % \pm 3.12

	B4: n-stem	1	0.00 % ± N/A
	B5a: W1 heavy stem	307	66.12 % ± 2.71
	B5b: W1 light stem	536	71.83 % ± 1.94
	B5c: W1 root in *-r	51	100 % ± 0.00
	B6: S6/S7 *-j- infix	10	100 % ± 0.00
C (inflectional trigger)	C2: S6/S7 pres. ind.	47	97.87 % ± 2.13
	C3: W1 pret. opt. w. syncope	42	0.00 % ± 0.00
	C4a: PP present opt.	11	100 % ± 0.00
	C5: comp/sup adjectives	8	100 % ± 0.00
	C6: pronominal <i>-iu</i>	44	86.36 % ± 5.23
D (derivational trigger)	D1: *-īpō-	29	89.66 % ± 5.76
	D2: *-īga-	42	92.86 % ± 4.02
	D3: *-līka-	55	12.72 % ± 4.54
	D6: *-nisja-/*-nisjō-	12	8.33 % ± 8.33
	D7: *-iska-	47	95.74 % ± 2.98
	D8: *-injō-	1	0.00 % ± N/A

An immediately salient outcome in the above is that, unlike some of the other derivational suffixes containing an umlaut trigger, *-līka- (type D3) and *-nisja-/*-nisjō- (type D6), trigger umlaut at low rates of success. These are also the only umlaut-causing derivational suffixes arising in Otfrid that begin with a consonant rather than the trigger *i or *ī itself, and perhaps this can help account for the low success of umlaut here. In a token such as

armlichun (Otfrid 3.14.120) ‘wicked, godless (MASC PL DEF)’

we may be tempted to reconstruct the masculine nominative singular indefinite (a-stem) as *arm-*līk* in West Germanic, based on the fact that PGmc *armaz as an independent adjective is not attested in West Germanic with its historical theme vowel (cf. even Old Norse *-r* and Gothic *-s*). However, it is possible that such a compound retained its declensional theme vowel, e.g. WGmc *arma-*līk*, which would likely have blocked umlaut.

Even within Otfrid it is unclear how the phonology of the word—and particularly any vowel in the middle of the word—should be reconstructed, since the MS actually offers us not only the spelling *armlich-* for this word but also

armilichun (Otfrid 3.14.120)

with linking vowel *i* and

armalichen (Otfrid 4.23.2)

with linking vowel *a*. Although the scribes are inconsistent regarding the quality and even the existence of this additional vowel, which could be an epenthetic innovation between /m/ and /l/ or a retention of linking *-a- from Proto-Germanic (in which case its orthographic inconsistency is presumably attributable to its being unstressed), there is clearly something going on in this adjective and others with *-līka- that produces a pattern of umlaut inhibition.

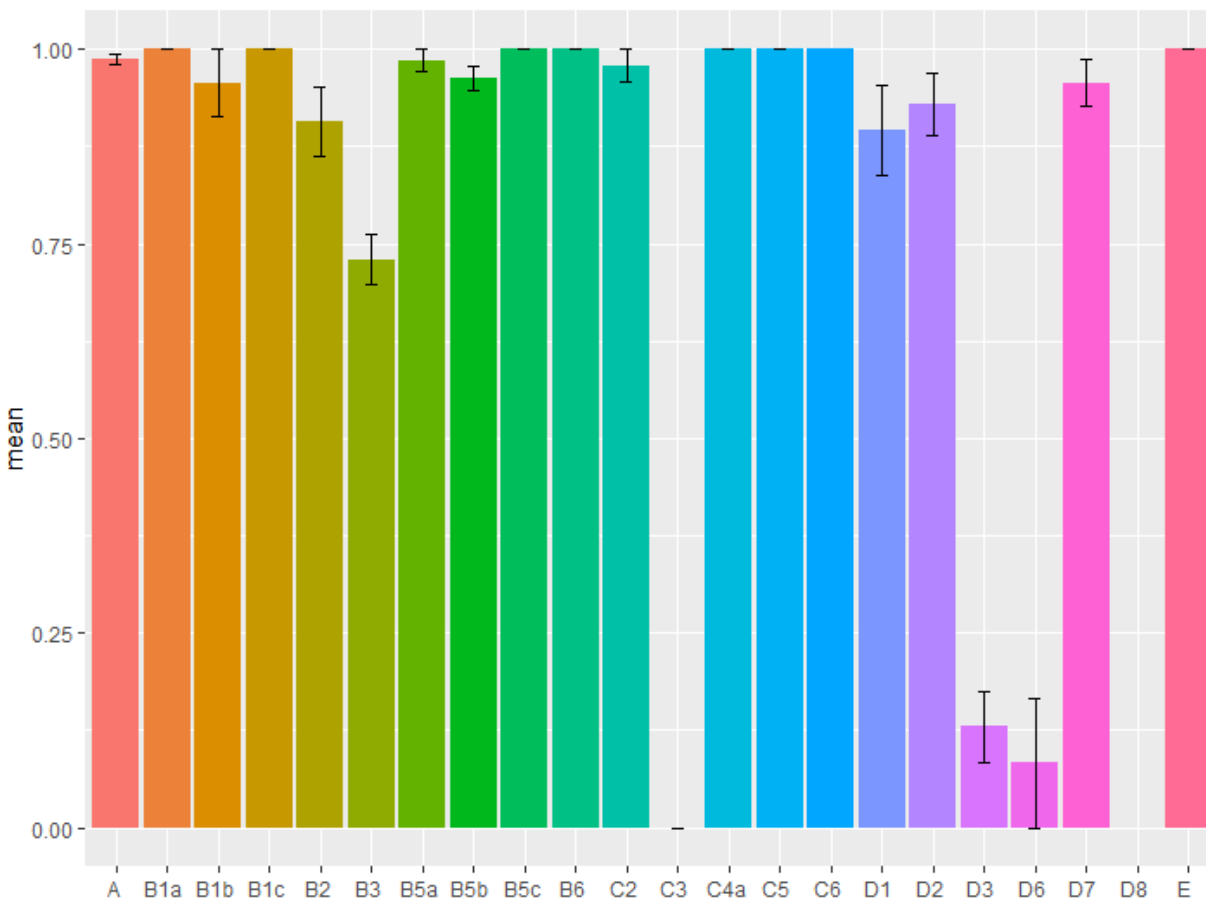
Another important finding is that, out of 42 instances, there are zero successes for the preterite optative of W1 verbs that have lost their thematic *-i- due either to syncope (type C3), if they are etymological heavy stems (e.g. *nanta* ← *namnid- ‘named’), or on analogy to those that underwent syncope, if they are etymological light stems that underwent gemination in parts of the present paradigm (e.g. *zalta* ← *talid- ‘told’). I explored in 2.2.e how such post-syncope forms as *nanti* ‘might name (3SG)’ ← *namnidī or *zalti* ‘might tell (3SG)’ ← *talidī present the perfect opportunity for primary umlaut to take place (even though an intermediate cluster like

*lC is historically tantamount to a “blocking environment”); and yet, there is not a single umlauting token in Otfrid. This is an important finding, especially in comparison with the statistics for the same type in older texts. Since Otfrid represents a relatively late OHG text, it is possible that the South Rhenish Franconian dialect of Otfrid V historically underwent umlaut in this part of the strong verb paradigm (e.g. **nenti* ← **namnidī*) but later leveled the umlauted vowel out for *a* to better resemble the rest of the preterite paradigm.

Umlaut triggered by the theme vowel of the i-stem nouns (B3) has an appreciably lower success rate than the other B-types. When we look at the data, we find that a great number of B3-type tokens are inflected instances of *maht* ← **mahti-* ‘power,’ which contains *hC, the classic blocking environment for primary umlaut. It is no wonder, therefore, that this number is so low.

To account for a similarly low umlaut success rate in the B5a (heavy-stem W1 verbs) and B5b (originally light-stem W1 verbs that undergo gemination before *j⁵⁸) types, it is necessary to examine the same data when we remove tokens in which the umlaut trigger is not marked orthographically. This is because these two classes constitute the *Rückumlaut* verbs, whose preterite stems are defined by an absence of the W1 vowel *-i-, which in verbs of the B5a type is lost due to syncope and in verbs of the B5b type is lost due to analogy to the B5a type.

⁵⁸ I.e., whose roots do not end in a single *-r, which resists gemination due to *j.



Sublevel	# of tokens	Success of umlaut \pm S.E.
B5a: W1 heavy stem	68	98.53 % \pm 1.47
B5b: W1 light stem	136	96.32 % \pm 1.62

It is clear that if we control for triggers lost to syncope by looking only at a subset of the data in which the trigger is marked explicitly in the orthography, the B5a and B5b types do in fact reliably show umlaut. This effectively means that we are excluding almost all B5a forms built on the preterite stem (past-tense forms and the participle), and all preterite-stem B5b forms except those like *zelita* ‘told (3G)’ that do not analogically delete their post-tonic vowel (e.g. *zalta*).

3.4 Otfrid V: Conclusions

The primary umlaut data presented by Otfrid V in large part conform to the state of things in many dialects of modern German. There are really no blocking environments, phonologically speaking, other than *hC. There is, however, a solid trend in general that consonant clusters disfavor umlaut more than do singleton consonants (which show no umlaut-inhibiting properties at all). This finding is hardly surprising considering that some parallel phenomena are observed to follow the same rule; e.g., velar umlaut in Old English generally only operates across a single consonant intervening between the target and trigger segments (Campbell 1959). Note that, from the perspective of syllable structure, saying that umlaut is more likely to operate across singleton consonants than across clusters in Otfrid is synonymous with saying that umlaut is more likely to occur when the syllable containing a potentially umlauting vowel has an empty coda, i.e. ends with the short vowel *a itself. We could therefore make the statement that Otfrid is far more likely to exhibit umlaut when *a is followed by an empty syllable coda than when that coda is filled by one or more consonants.

On the morphological side of things, primary umlaut takes place where we expect it to across the board (once we control for phenomena such as verbs with *Rückumlaut*) except, perhaps, in the derivational-suffix types D3 (*-līka-) and D6 (*-nisja-/*-nisjō-). At least the former suffix is sometimes directly preceded by an additional unstressed vowel -a- or -i-, which on a phonological level could certainly play a role in blocking umlaut here, even though the exact phonetic realization of a token like *armalichen* is unclear. It may be that the Otfrid data reflect an analogical un-umlauting of words derived from these suffixes,⁵⁹ which would indicate that umlaut, i.e. the alternation between *a* and *e* in different parts of a paradigm or in various derived forms, has already been grammaticalized by the scribes of Otfrid V. Indicative of the

⁵⁹ Contrary to modern standard German, where the suffixes *-lich* and *-nis* trigger umlaut as a grammatical rule.

same thing is the total absence of W1 preterite optative forms that have undergone umlaut triggered by the past optative marker *-ī (type C3). Umlaut in such a case is expected etymologically, and the fact that it occurs in zero out of 43 instances suggests that a grammatical rule restoring *a* has already been established. Therefore it is probably reasonable to consider Otfrid V representative of an OHG dialect in which umlaut is no longer conditioned phonologically (although phonetic effects of vowel harmony may persist) but rather grammatically. This may even explain the instances of successful umlaut across the blocking cluster *hC, e.g.

uuehsit (Otfrid 1.8.24) ‘grows (3SG)’ ← *wahsid;

even as late as Otfrid, *hC clearly is a statistically strong umlaut blocker, but in this token and its other instances there may already be a grammatical rule that Strong Classes 6 and 7 exhibit tonic vowel *e* in 2SG and 3SG (what I have labeled the C3 type; cf. modern *du wächst, er/sie/es wächst*), regardless of the phonological environment.

Before concluding this chapter I would like to bring to the reader’s attention a handful of tokens that appear to show an umlauted writing not of short *a → *e* but of long *ō (or, its diphthongized reflex OHG *ua* = *[uā]):

syah ‘seek (1SG)’ (Otfrid 3.18.19) ← WGmc *sōkju; the ending is apocopated before the subject pronoun (*ni syah ih* “I do not seek”)

gimyatu ‘joyful (NEUT PL)’ (Otfrid 3.22.37) ← WGmc *ga-mōdju

suechet ‘seek (2PL)’ (Otfrid 5.4.41) ← WGmc *sōkjad ~ *sōkid

fuelen ‘feel (1PL)’ (Otfrid 5.23.103) ← WGmc *fōljam

It seems that the scribes responsible for these aberrant spellings may be attempting to depict an i-mutated diphthong (something like *[yā] or [yǣ]) with the orthographical tools at their disposal.

The preference for <ya> in Book III as opposed to <ue> in Book V could be explainable as the choices of different scribes. This list is not supposed to be exhaustive, and a more comprehensive and systematic survey of potential writings of secondary umlaut in Otfrid is necessary to go further in this direction. But I include these here, while also pointing out the absence of an orthographic trigger <i> in any of these tokens, as a reminder that far more is going on with i-mutation in Old High German, especially in a text as late as Otfrid's *Evangelienbuch*, than the orthography is easily able to convey. Scribal tradition perhaps also works against umlaut of vowels besides short *a coming to light.

An illuminating foray into relatively early (mid-9th century) attestations of umlaut of *u, *ō, and *ū in place-names is made by Gütter (2011), who demonstrates with examples like <puirron> 'Büren' ← *būrjō- (from St. Gallen in 827) that umlaut of back non-open vowels was well underway prior to the time of Notker (11th century) to which it had once been dated (e.g., Weinhold 1883). Examples like Gütter's and mine above, exhibiting no orthographic trigger, are crucial for showing that umlaut of long *ā and back vowels such as *u(:), *o:, and *au had in many places likely completed their phase as subphonemic attraction and had already become phonemes in their own right as early as the 9th century. Further study in secondary umlaut ought to work concomitantly with research in primary umlaut to help build a deeper understanding of the spread of these related phenomena across Continental West Germanic.

Chapter 4: Abrogans

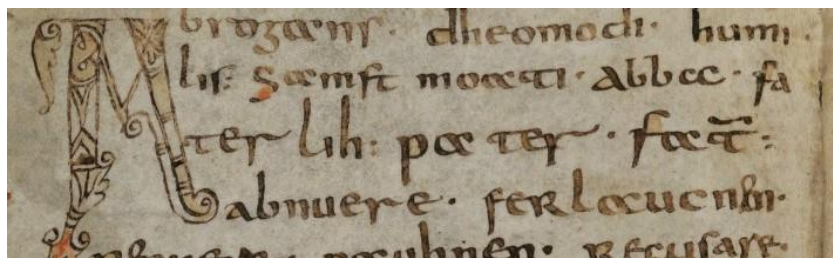
4.1 Abrogans K and Pa: Background Information

The various Latin-Old High German glossary manuscripts to which the name *Abrogans* has been given, owing to the first Latin entry in each—*abrogans* ‘humble’ = *dheomodi* (Abrogans K), *aotmot* (Abrogans Pa)—belong to a larger manuscript family of Latin glossaries that has been called *die Keronisch-Hrabanische Sippe*, or the Kero-Hrabanus Family. There are three comprehensive MSs containing variants of the Abrogans glossary (the K, Pa, and Ra MSs, of which I will be dealing with the first two in this chapter), and a number of fragmentary MSs beyond this.

On the name “Kero-Hrabanus” Bostock writes that

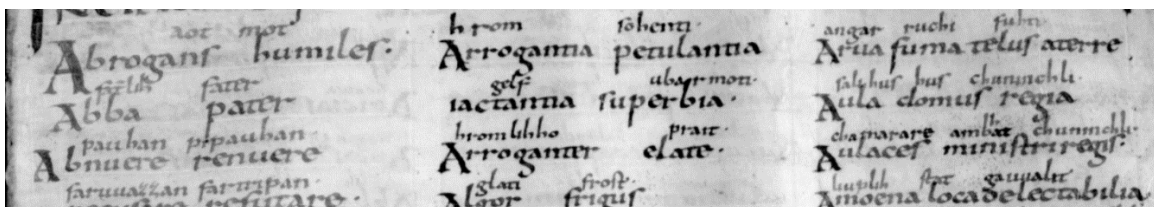
“the titles have no historical justification. It was a common practice of medieval scribes to affix a well-known name to any odd passage they were copying, so a scribe appropriated the name of the famous teacher Hrabanus Maurus for the shorter text, unaware or regardless of the fact that Hrabanus was born about the date when the glossary was being compiled” (Bostock 81–82).

Likewise the name Kero specifically hearkens back to a historical Benedictine monk by that name, whose legacy at some point became confounded with one of the Abrogans MSs, specifically the one that is found in the Stiftsbibliothek St. Gallen. This MS, Codex Sangallensis 911, is therefore frequently called the *K* manuscript (for Kero), and I refer to it in this chapter as “(Abrogans) K.” This MS contains, in folios 4–289, the complete glossary in alternating Latin and German terms in the same line (as opposed to interlinearly with the German filled in between the lines above the Latin).



The K MS dates to the late 8th century (Bostock p. 84). The dialect it presents is Alemannic with the occasional scribal influence of Franconian; the considerable degree to which the Second Consonant Shift has advanced in the dialect of the scribe is obvious from tokens showing, e.g., affrication of initial *k (*chunni* (K 43.8) *[kx-] ← *kunnija- ‘kind, family’ for *genus*), a feature of only the southernmost dialects. Alemannic can further be distinguished from Bavarian with the writing of the digraph *ua* (rather than *uo*) for the diphthongized reflex of WGmc *ō in stressed syllables, e.g., *nist moazzic* (K 74.7) ← WGmc *mōt-īg ‘is not idle (cf. *müßig*)’ = ‘abstains from something’ for *caret*.

The second Abrogans MS that belongs to the corpus of the present dissertation is Abrogans Pa, or Codex Parisinus 7640 of the Bibliothèque Nationale in Paris (referred to in this chapter as “(Abrogans Pa).” This version of the same glossary, unlike K, is interlinear; the Latin content is glossed above in a smaller hand in German.



The German-glossed text spans 20 folios and the glossary in fact cuts off after the bottom of 132r, while still in the *Is*. Although the Pa was copied in a later Carolingian minuscule datable to the first quarter of the 9th century, “some of the forms of the German language are much older, probably dating as far back as 765, so the text is clearly a careful copy” (Bostock p. 83). Many

archaic spellings can be found in the text, such as reflexes of WGmc *ai and *au that had apparently not yet fully monophthongized before dental consonants in the original text:

laera (Pa 124.c) ‘teaching’ ← WGmc *lairō for *rudimenta* ‘first principles, rudiments’

ganaotit (Pa 124.b) ‘compelled’ ← *-naud-ida- for *coartor* ‘I am constrained’

The dialect of Pa is Bavarian—like K, it exhibits an advanced state of the Second Consonant Shift—although non-Bavarian and even non-High German orthographic tendencies are occasionally identifiable. Among other things, Pa contains a handful of spellings towards the beginning of the section containing German text that almost appear to show Anglo-Saxon influence:

unse[ft]⁶⁰ ‘difficult, uneasy’ (Pa 124.b) ← *un-samftja- for *difficilis*, with loss of the nasal before *f; cf. OE *sēfte* ‘soft’;

analecgende ‘attacking’ (Pa 124.c) ← *-laggjand- for *abincruentes*⁶¹, with <cg> for the reflex of geminated *gg;

piuuargentem ‘warding off (DAT PL)’ (Pa 125.b) ← *-warjand- for *prohibentibus*, a token that uses <g> for the semivowel /j/. These spellings are anomalous and do not conform to overarching patterns that characterize the MS. Perhaps they could have something to say about the place of Pa in the MS family; but this goes beyond the scope of this dissertation.

Although there is a third “complete”⁶² Abrogans MS, namely the “Abrogans Ra” (Cod. Aug. CXI, in the Landesbibliothek Karlsruhe), I decided to focus only on the K and Pa for the sake of this project. Even though an in-depth phonological survey of all Abrogans MSs,

⁶⁰ MS *unsest*.

⁶¹ This ought to be *abingruentes*.

⁶² I am reluctant to use the word because all of these daughter MSs have inherited different features from the original—whatever that may have looked like, exactly—and in many ways innovated and expanded on it (or the opposite, as in the case of Pa, which ends suddenly in the “I” section. But I say “complete” to distinguish from the truly fragmentary MSs that also exist.

including the fragments, could certainly help shed more light on how the manuscript family ought to be reconstructed, my intent here is to take two prominent texts from this family—one (K) a older copy but showing more dialectal innovation, the other (Pa) a later copy but more faithful to its predecessors—in order to furnish the umlaut corpus with extensive data from the southern part of the OHG-speaking area. Abrogans makes for a particularly fascinating case because we are able to compare many of the same tokens from one MS to the next. The following analyses of the phonological and morphological conditions for primary umlaut in Abrogans K and Pa were presented together as a two-MS case study at the 24th Germanic Linguistics Annual Conference (GLAC) in May 2018. At that conference I presented only those tokens from K and Pa that glossed the same Latin word in a way that was virtually morphologically identical,⁶³ e.g.:

thouuahit ‘washes (3SG)’ (K 5.10) ← *þwahid

duahit ‘washes (3SG)’ (Pa 124.a) ← *þwahid

In the present study, however, in order to produce statistical results that are as meaningful as possible, I am taking into consideration even those tokens which occur only in one Abrogans MS or the other, or are otherwise translated from the Latin with different OHG words.

As a reference for these two MSs I primarily used Steinmeyer & Sievers’ (1879) compendium of OHG glosses, of which Volume 1 largely features the main MSs of Abrogans. However, for further detail in the Codex Parisinus 7640 I used Baesecke’s (1931) facsimile of the MS and additionally consulted the interactive scan of the text at the website of the Bibliothèque Nationale de France (Gallica). Likewise, I made constant use of Bischoff et al.’s

⁶³ Glossary items occasionally differ with each other between MSs even in the Latin, especially items that are not alphabetized entries themselves but either grammatically depend on one or are supposed to be synonymous with one, such as *Indicia signa* ‘prophecies; signs,’ = *foraquidi zaihan* in Pa 132.a but simply *Indicia* = *foraquidi* K 157.11.

(1977) facsimile and transcription of the Codex Sangallensis 911 as well as the interactive version on the website of the Université de Fribourg (E-Codices).

4.2 Abrogans K and Pa: Phonological Analysis

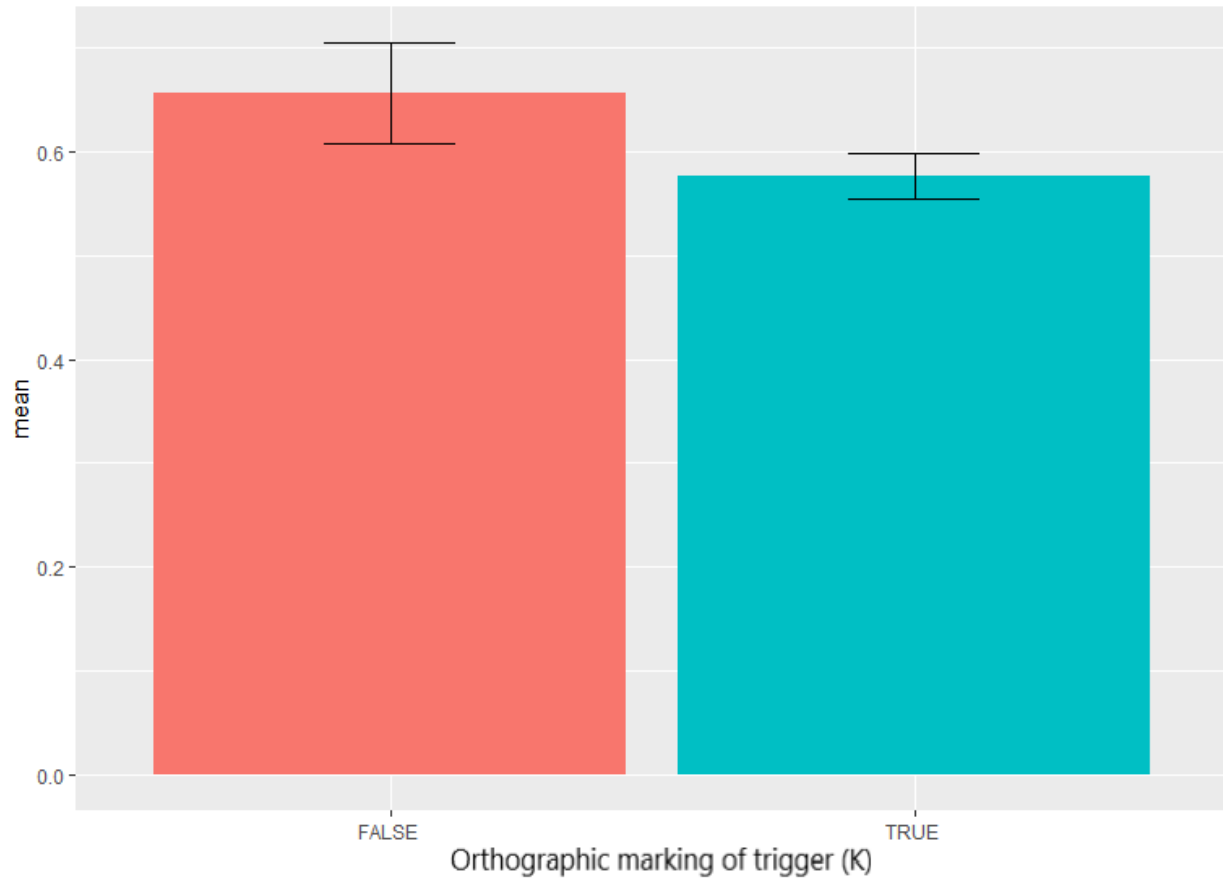
Abrogans K contains a total of 637 potentially umlauting tokens, while Pa has only 421 (a result of this glossary ending prematurely). As in the analysis on Otfrid V, we begin with the most basic question we can ask of these potentially umlauting tokens, which is: how many of them actually show umlaut (*a → e) orthographically?

Orthographic umlaut	Abrogans MS	Number of tokens	Percentage of tokens
FALSE	K	262	41.13 %
	Pa	371	88.12 %
TRUE	K	375	58.87 %
	Pa	50	11.88 %

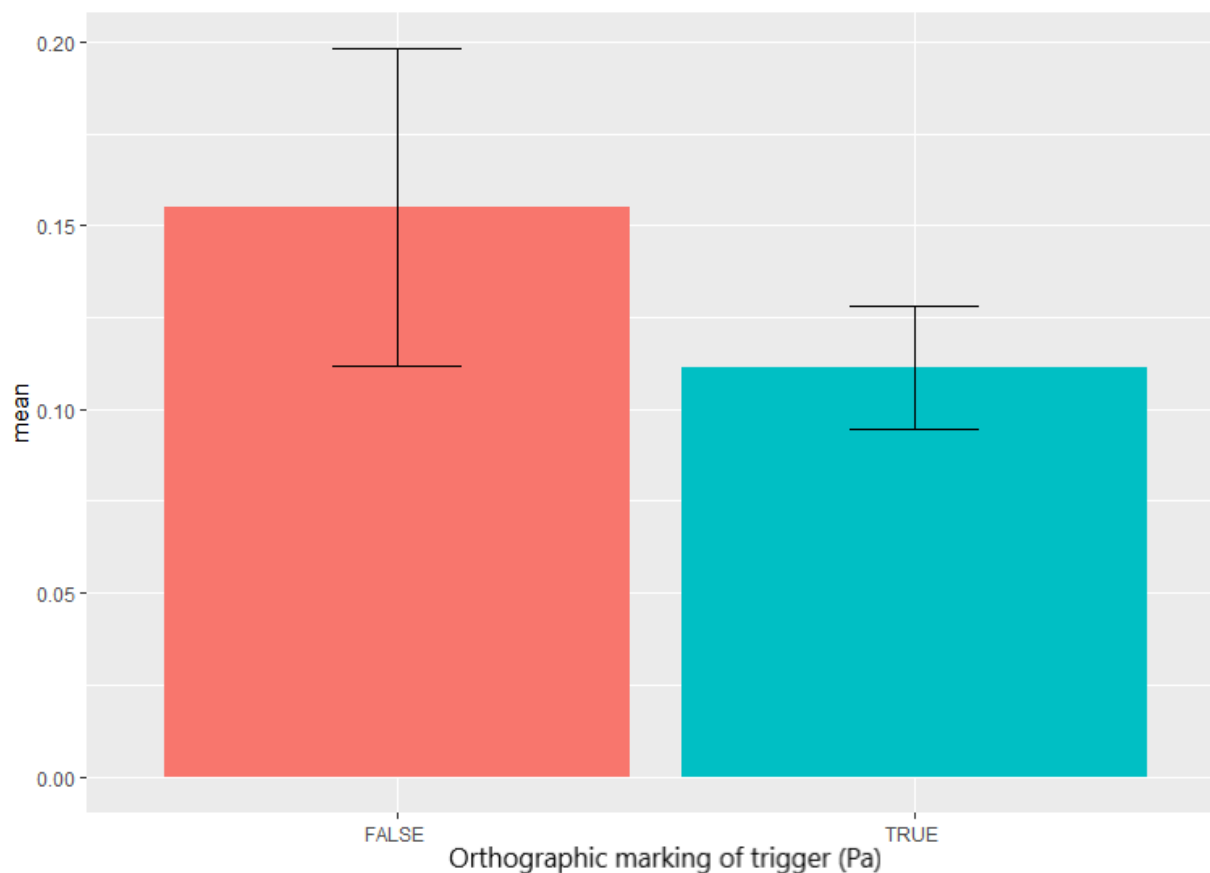
Even at this early point it is obvious that there is a dramatic difference not only between how these two MSs from the same family express umlaut (or do not) but also between both Abrogans MSs (late 8th century to early 9th century) and Otfrid (late 9th century). Abrogans K clearly shows much innovation in the way of umlauting, whereas Pa, in spite of its later dating relative to K, preserves evidence of a much more archaic situation.

4.2.1 Abrogans K and Pa: Phonological Analysis—Orthographic Trigger

Our next question is whether the presence or absence of the orthographical trigger (as *i*) can reliably predict success or failure of umlaut.



MS	Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
Abrogans K	FALSE	96	65.63 % \pm 4.87
	TRUE	541	57.67 % \pm 2.13



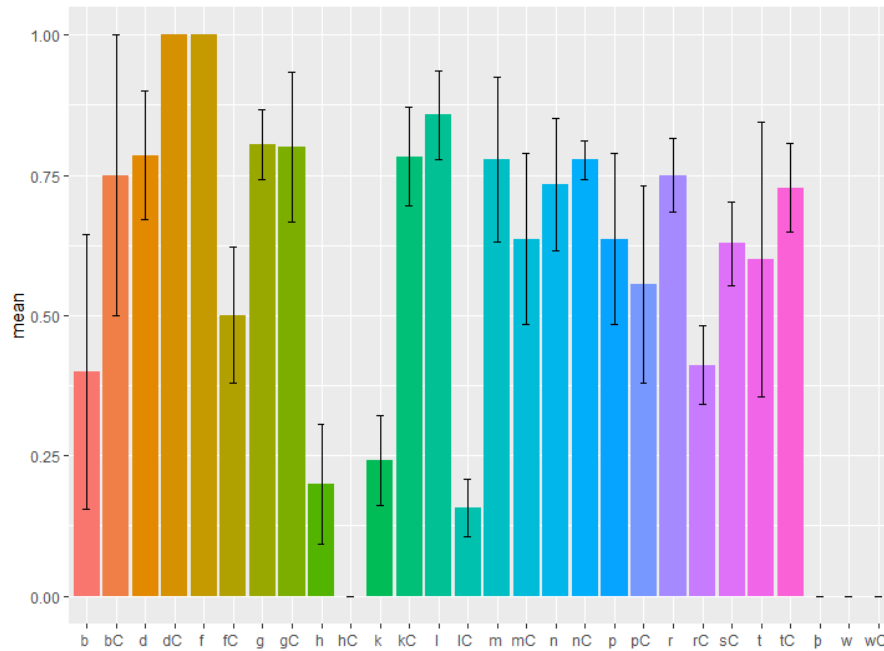
MS	Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
Abrogans Pa	FALSE	71	15.49 % \pm 4.32
	TRUE	350	11.14 % \pm 1.68

We can say from the above that, in Abrogans K, the presence or absence of the orthographic trigger does not appear to make a strong difference for writing of umlaut; the vowel is written as *e* in close to 6 out of 10 instances of both. The same pattern does not hold for Abrogans Pa, where tokens without orthographic trigger *i* show umlaut approximately 15% of the time but tokens *with* the orthographic trigger are even less likely to show an umlauted vowel, at around 11%. A possible interpretation is that the orthographic trigger *i* itself may be considered sufficient, according to the practice of the scribe, to “mark” i-mutation of the preceding vowel in the Pa text. Interestingly, the standard error of umlaut in the presence and

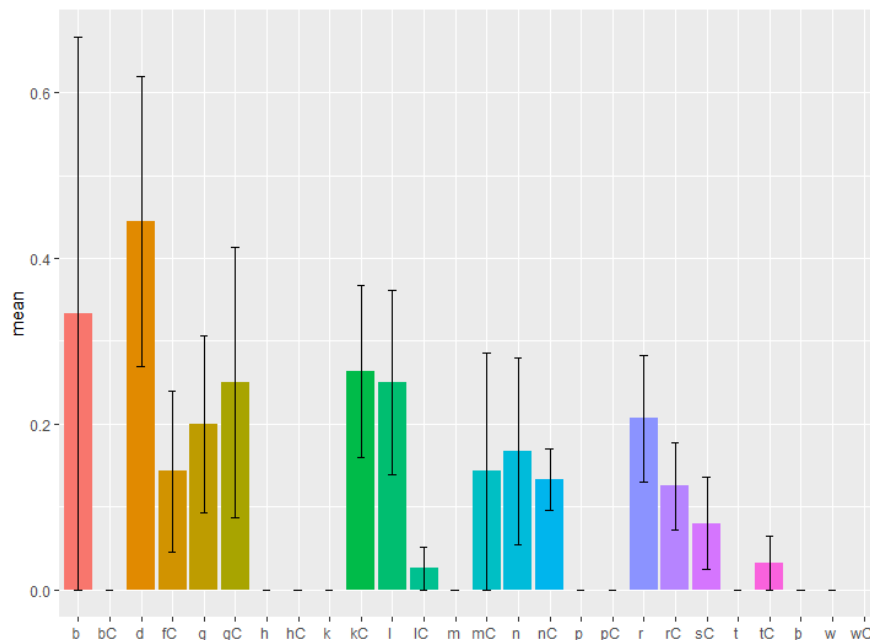
absence of the orthographic trigger is comparable between K and Pa (regardless of how the expanded second graph makes things look).

4.2.2 Abrogans K and Pa: Phonological Analysis—Intervening Consonant(s)

Despite this appreciable gap in the overall umlaut success rate between K and Pa, many of the phonological patterns shown in one are mirrored in the other.



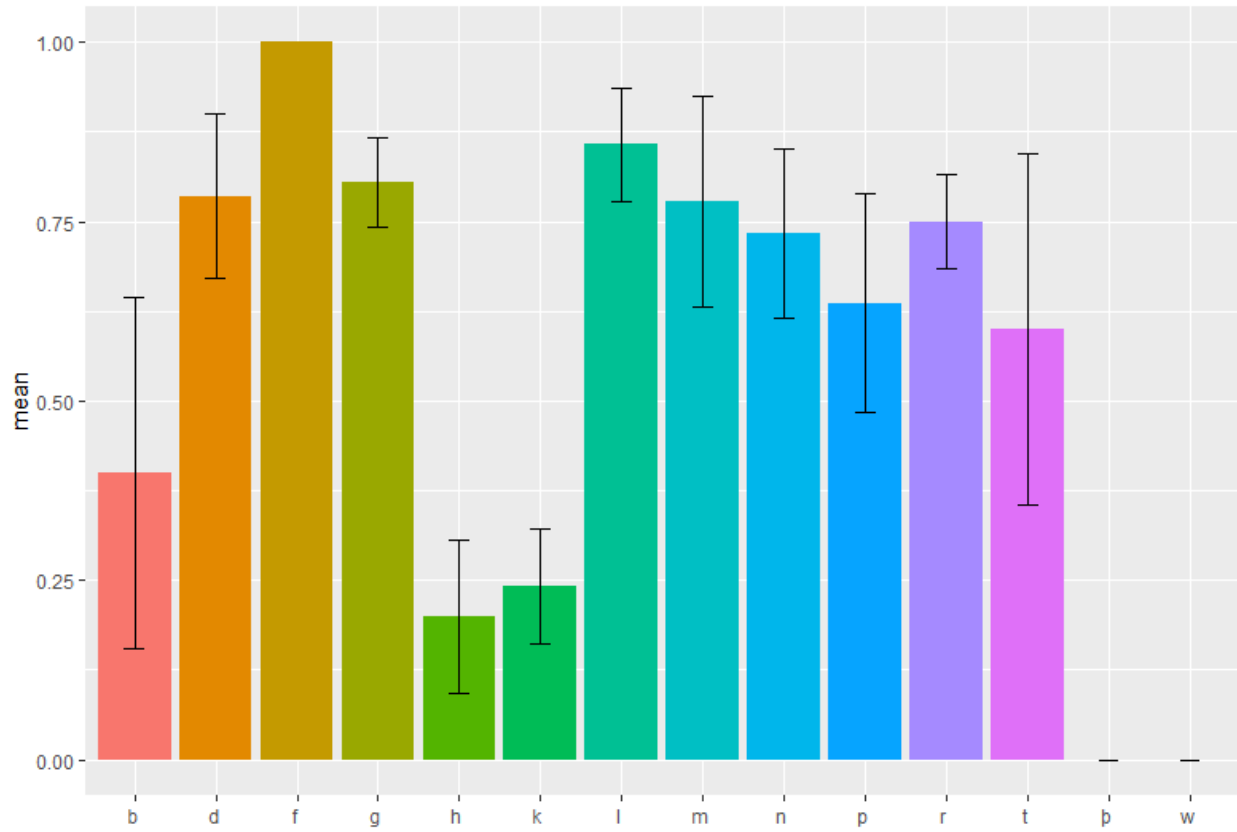
Intervening consonants (Abrogans K)



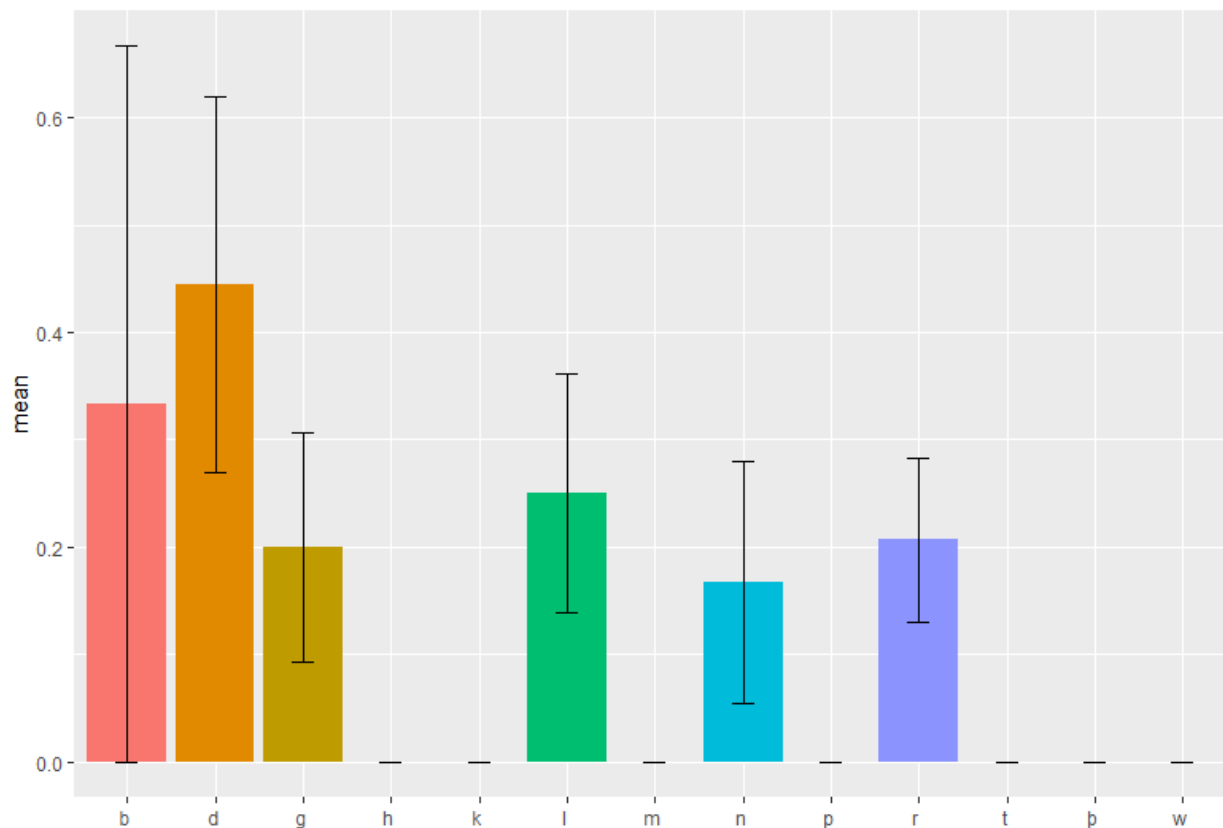
Intervening consonants (Abrogans Pa)

An early insight from these data is that the profound contrast in rates of orthographic umlaut across singleton consonants and consonant clusters observed in Otfred appears not to hold nearly as reliably in either of the Abrogans MSs (except for *hC, which acts as a total umlaut blocker in both K and Pa). The clusters *gC, *kC, and *mC inhibit umlaut *less* in Pa than do their counterparts *g, *k, and *m (although with substantial margins of error in these statistics). Similar patterns hold in Abrogans K for *bC, *kC, and *tC relative to their counterparts *b, *k, and *t. So, the presence or absence of a coda consonant in the syllable containing a potentially umlauting vowel seems to play no significant role whatsoever in either of these MSs.

For a closer comparison between K and Pa I will nonetheless still draw separate graphs for singleton consonants and clusters so that the reader can observe the respective data from each of these groups in more detail.



Intervening singleton consonants (Abrogans K)



Intervening singleton consonants (Abrogans Pa)

Single consonants (WGmc)	Abrogans MS	# of tokens	Success of umlaut \pm S.E.
b	K	5	40.00 % \pm 24.49
	Pa	3	33.33 % \pm 33.33
d	K	14	78.57 % \pm 11.38
	Pa	9	44.44 % \pm 17.57
f	K	1	100 % \pm N/A
	Pa	0	N/A
g	K	41	80.49 % \pm 6.27
	Pa	15	20.00 % \pm 10.69

h	K	15	20.00 % ± 10.69
	Pa	10	0.00 % ± 0.00
k	K	29	24.14 % ± 8.09
	Pa	16	0.00 % ± 0.00
l	K	21	85.71 % ± 7.82
	Pa	16	25.00 % ± 11.18
m	K	9	77.78 % ± 14.70
	Pa	4	0.00 % ± 0.00
n	K	15	73.33 % ± 11.82
	Pa	12	16.67 % ± 11.24
p	K	11	63.64 % ± 15.21
	Pa	5	0.00 % ± 0.00
r	K	44	75.00 % ± 6.60
	Pa	29	20.69 % ± 7.66
t	K	5	60.00 % ± 24.49
	Pa	2	0.00 % ± 0.00
ʃ	K	2	0.00 % ± 0.00
	Pa	2	0.00 % ± 0.00
w	K	8	0.00 % ± 0.00
	Pa	4	0.00 % ± 0.00

The token counts are too low for most of these intervening consonants to be able to draw statistical conclusions; however, a trend supported by a modest token count in both K and Pa is that both *h and *k correlate with a low success rate of umlaut. In K these intervening phonemes

each yield a 20–25% umlaut success rate, which is relatively low in the context of K, and in Pa neither yields even a single token exhibiting orthographic umlaut out of 10 and 16 tokens, respectively. To account for this it may be useful to consider that intervocalic WGmc *k has shifted to */x.x/ in the Second Consonant Shift where the velar fricative [x] becomes the coda consonant of the umlauting syllable. This spirantized output is spelled in the K and Pa texts in a broad variety of ways, e.g.:

hch, as in *farsahchit* (K 4.19) ‘forsakes (3SG)’ ← WGmc *-sakid

ch, as in *camachida* (K 22.19) ‘union; spouse’ ← WGmc *-mak-īpō-

k, as in *pithekit* (K 83.2) ‘covered’ ← WGmc *-þakida-

h, as in *sahis* (Pa 125.c) ‘argue (2SG)’ ← WGmc *sakis

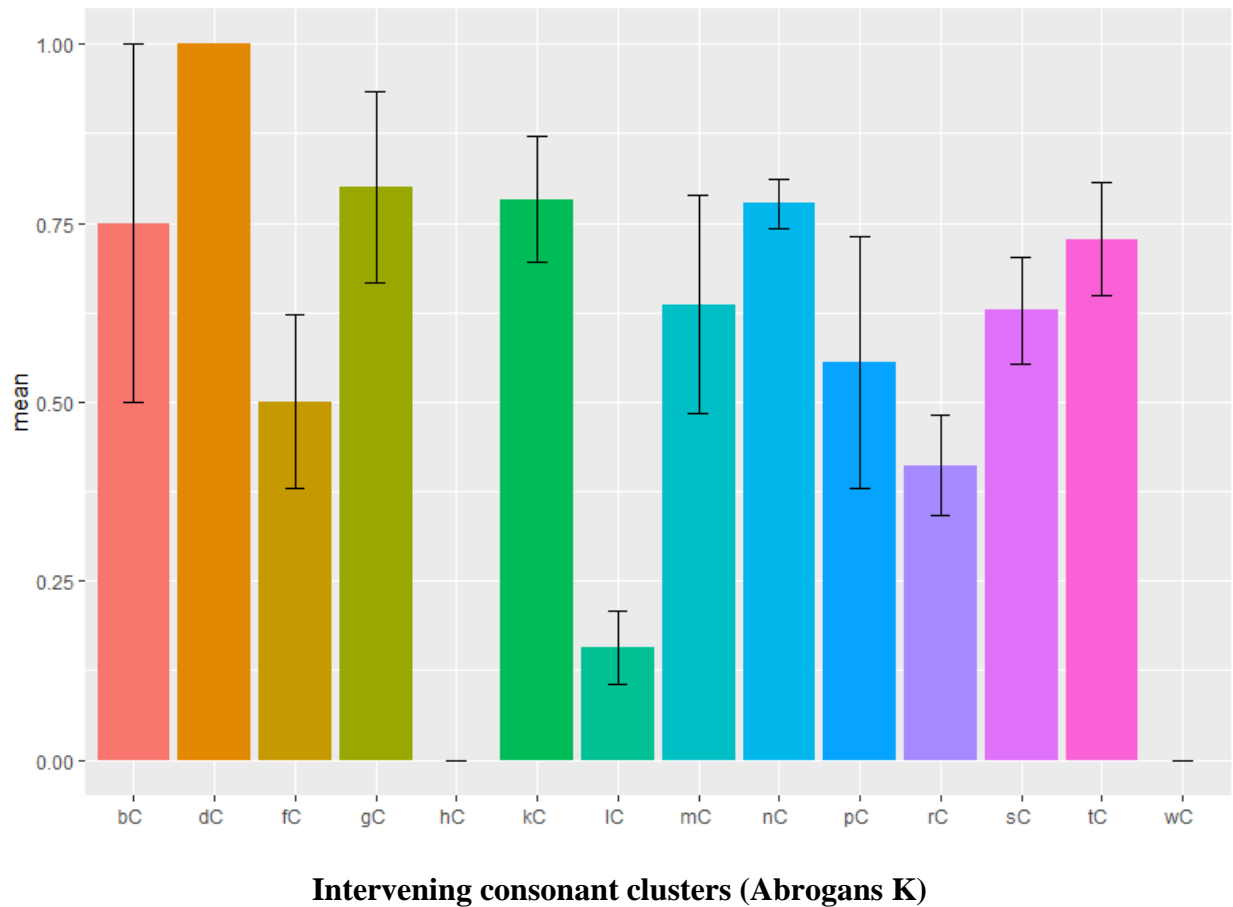
hh, as in *farsahhit* (Pa 124.a) ‘argues (3SG)’ ← WGmc *sakid

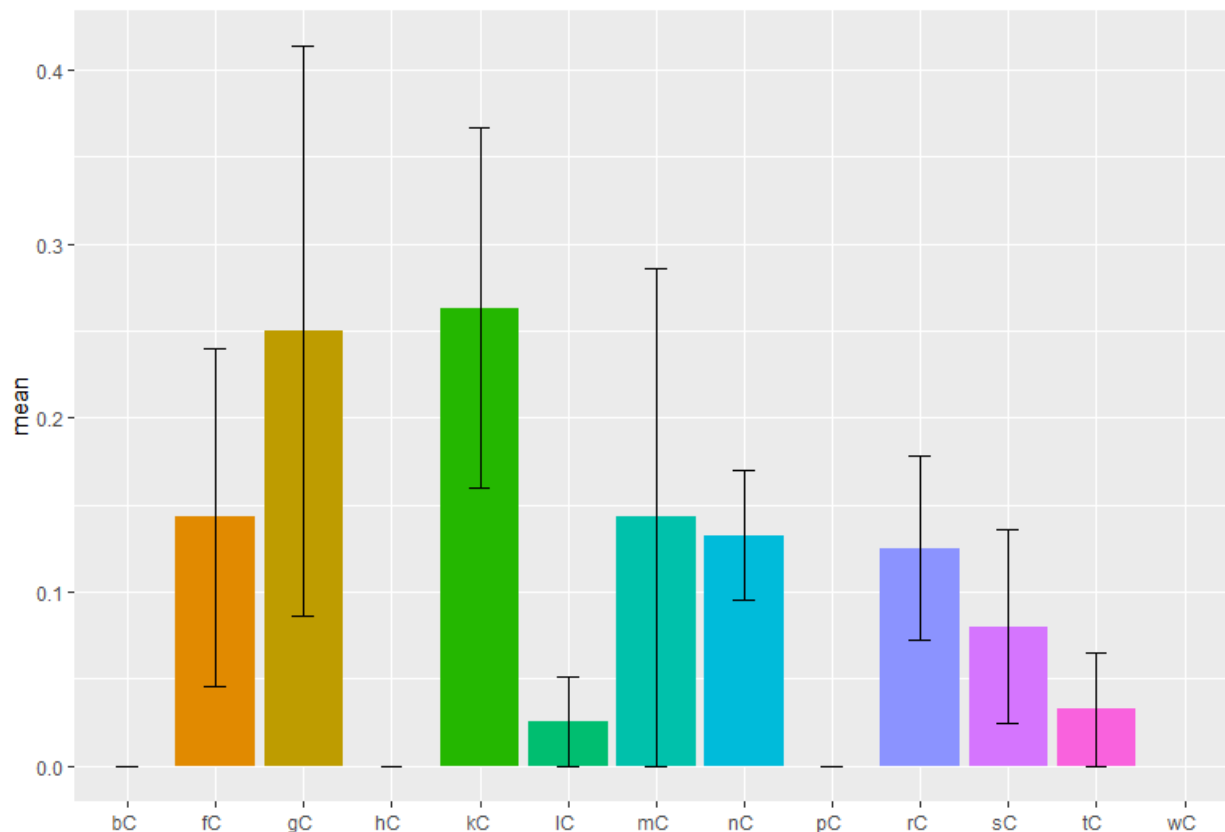
Since */x.x/ ← *k was not an umlaut blocker in Otfrid (11 out of 11 tokens of intervocalic *k did not inhibit writing of primary umlaut), it is somewhat surprising to find it playing this role in both Abrogans MSs, in fact patterning similar to *hC, even. My suggestion for future research in this area would be to take into consideration the fact that the phonetic realization of Germanic *h, particularly in syllable-coda position, has long been a thorny issue for Germanic studies.⁶⁴ It could be that PGmc *h (= *[x]) in syllable-coda position is still realized as a velar fricative in the dialects of the Abrogans K and Pa scribes, or perhaps of an earlier copy that is now lost. This could potentially explain the apparently dialectal (Alemannic and Bavarian) resistance of umlaut across *k → *hh* */x.x/.

Other than these two outliers, *k and *h, there is not much more to tell about the statistical role played by singleton consonants in K and Pa. Most other intervening singleton

⁶⁴ See especially Howell (1991), Chapter 2.

consonants inhibit umlaut at approximately equal rates, except for *b in K; *m, *p, and *t in Pa; and *þ and *w in both MSs; none of which are supported by a high enough token count to make them significant here. We will now turn to the role that intervening consonant *clusters* play with regard to primary umlaut in the Abrogans K and Pa MSs.





Intervening consonant clusters (Abrogans Pa)

Consonant clusters (WGmc)	Abrogans MS	# of tokens	Success of umlaut ± S.E.
bC	K	4	75.00 % ± 25.00
	Pa	2	0.00 % ± 0.00
dC	K	1	100 % ± N/A
	Pa	0	N/A
fC	K	18	50.00 % ± 12.13
	Pa	14	14.29 % ± 9.71
gC	K	10	80.00 % ± 13.33
	Pa	8	25.00 % ± 16.37

hC	K	21	0.00 % ± 0.00
	Pa	17	0.00 % ± 0.00
kC	K	23	78.26 % ± 8.79
	Pa	19	26.32 % ± 10.38
lC	K	51	15.69 % ± 5.14
	Pa	39	2.56 % ± 2.56
mC	K	11	63.64 % ± 15.21
	Pa	7	14.29 % ± 14.29
nC	K	139	77.70 % ± 3.54
	Pa	83	13.25 % ± 3.74
pC	K	9	55.56 % ± 17.57
	Pa	8	0.00 % ± 0.00
rC	K	51	41.18 % ± 6.96
	Pa	40	12.50 % ± 5.30
sC	K	43	62.79 % ± 7.46
	Pa	25	8.00 % ± 5.54
tC	K	33	72.73 % ± 7.87
	Pa	31	3.23 % ± 3.23
wC	K	3	0.00 % ± 0.00
	Pa	1	0.00 % ± 0.00

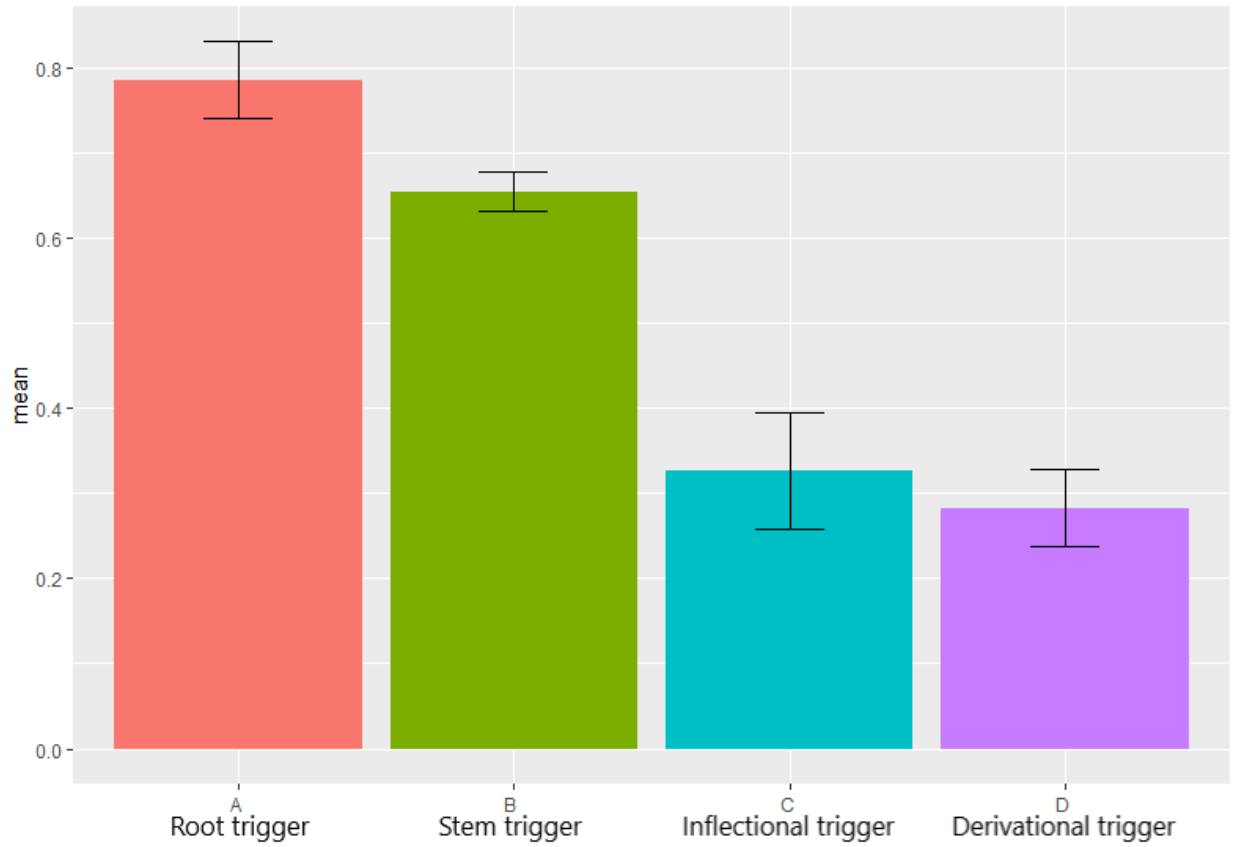
At first glance there appears to be a wider distribution of the umlaut success rate here than with singleton consonants intervening; however, this spread can be accounted for by the same low token counts and consequently wide error margins. In reality, it is difficult to tease out clear

patterns here. One commonality between K and Pa that appears to be significant, however, is the low count of umlaut across *IC and the absolute prohibition of umlaut across *hC. The latter is, of course, the canonical blocking environment invoked in the literature as the dividing line between primary (*a → */e/) and secondary (*a → */æ/) umlaut. But the former is an equally robust finding in the present study, evidenced by 51 tokens that potentially umlaut across *-IC- in K and 39 in Pa.

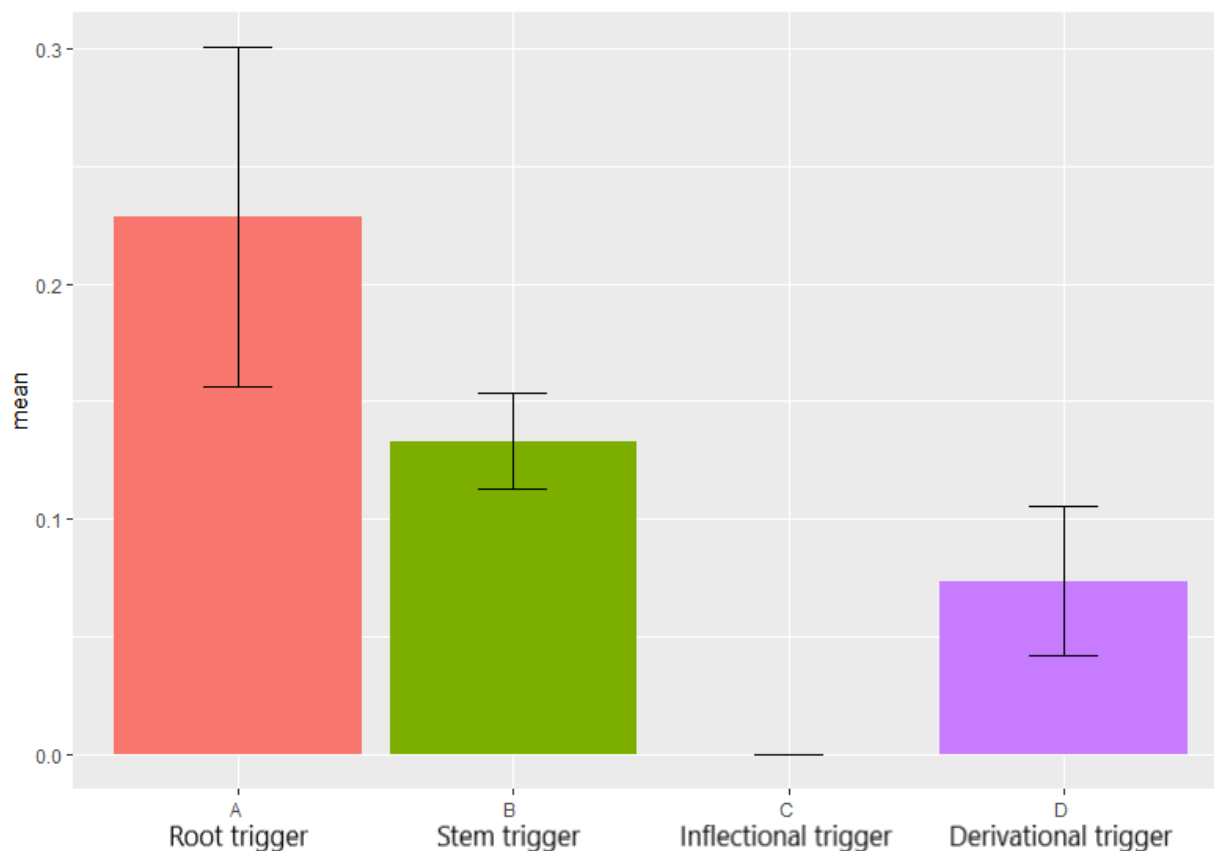
Beyond these blocking environments, we find a handful of clusters in each MS that inhibit umlaut less often than others. For example, *nC occurs in a total of 139 potentially umlauting words in Abrogans K, and umlaut is written in close to 77% of them. The same cluster occurs in 83 potentially umlauting words in Pa and attests an umlaut rate of only about 13%. This seems low; however, once we take into account the very low rates of umlaut success in Pa in general, *nC is actually among the clusters that exhibit umlaut the most in that MS.

4.3 Abrogans K and Pa: Morphological Analysis

Having tested umlautable tokens in the two Abrogans manuscripts for phonological patterns, we turn now to an analysis of the respective rates of umlaut corresponding to varying morphological relationships between the trigger and target segments. For this we will begin with the results based on the typology of umlaut triggers given in 2.2.e, specifically the four broad types: A (trigger in the same root as target), B (trigger in the noun-stem or verb-stem ending), C (trigger in a conjugational or inflectional ending that is not specific to a particular noun or verb class), D (trigger in a derivational suffix). E (clitic trigger) does not make an appearance as this is found only in Otfrid.



Morphological relationship of trigger to token (Abrogans K)



Morphological relationship of trigger to token (Abrogans Pa)

Consonant clusters (WGmc)	Abrogans MS	# of tokens	Success of umlaut \pm S.E.
A (root trigger)	K	84	78.57 % \pm 4.50
	Pa	35	22.86 % \pm 7.20
B (stem trigger)	K	405	65.43 % \pm 2.37
	Pa	278	13.31 % \pm 2.04
C (inflectional trigger)	K	49	32.65 % \pm 6.77
	Pa	40	0.00 % \pm 0.00
D	K	99	28.28 % \pm 4.55

(derivational trigger)	Pa	68	7.35 % ± 3.19
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A remarkable result of this initial morphology-based analysis is that—besides the presence of some clear correlations between the morphological position of the trigger segment and the success rate of umlaut—orthographic umlaut is so disfavored in C-type words in Pa that not a single one has *e* for the umlautable vowel, despite there being 40 potentially umlautable C-type tokens in that MS. Thus, even across consonants and consonant clusters that were found in 4.2.2 above to be relatively umlaut-friendly in these MSs, the occurrence of the trigger segment in a morphological category classed under C (in other words, the trigger occurs relatively infrequently in the nominal or verbal paradigm) is perhaps responsible for inhibiting the writing of umlaut, e.g.:

ufgangit ‘goes up (3SG)’ (Pa 125.d) ← WGmc *-gangid

spanit ‘attracts (3SG)’ (Pa 132.d) ← WGmc *spanid

tragit ‘carries (3SG)’ (Pa 131.f) ← WGmc *dragid

It is plausible that the absence of the trigger in most parts of the paradigm in C-types (as in the above three examples, which are S6 and S7 present indicatives) could be responsible for *either* a tendency to level out umlauted parts of the paradigm *or* a practice of spelling a lexeme’s root identically in all parts of the paradigm (e.g., *gang-*, *span-*, *trag-*) whether or not the tonic vowel is realized as umlauted [e]. It may be also be the case that C-types are affected in not one but both of these ways. However, any accounting for the absolute lack of orthographic umlaut in C-types in the Pa MS invites the question of why K does not behave similarly, but instead has the success rate of umlaut between B and D, as we expect to be the case if this morphological approach is a sensible way of doing things. If the spelling with *a* does not necessarily reflect

pronunciation of an inflected form but merely a learned spelling of a nominal or verbal root that can be used in all parts of the paradigm regardless of pronunciation, does this imply that the D-type tokens (with trigger occurring in a derivational suffix) in the Pa MS that *do* show orthographic umlaut, e.g.,

chreftic ‘powerful’ (Pa 126.d) ← WGmc *kraft-īg

decalihida ‘a daily allowance’ (Pa 129.c) ← WGmc *dag-līk-iþō- (for *diurnum*)

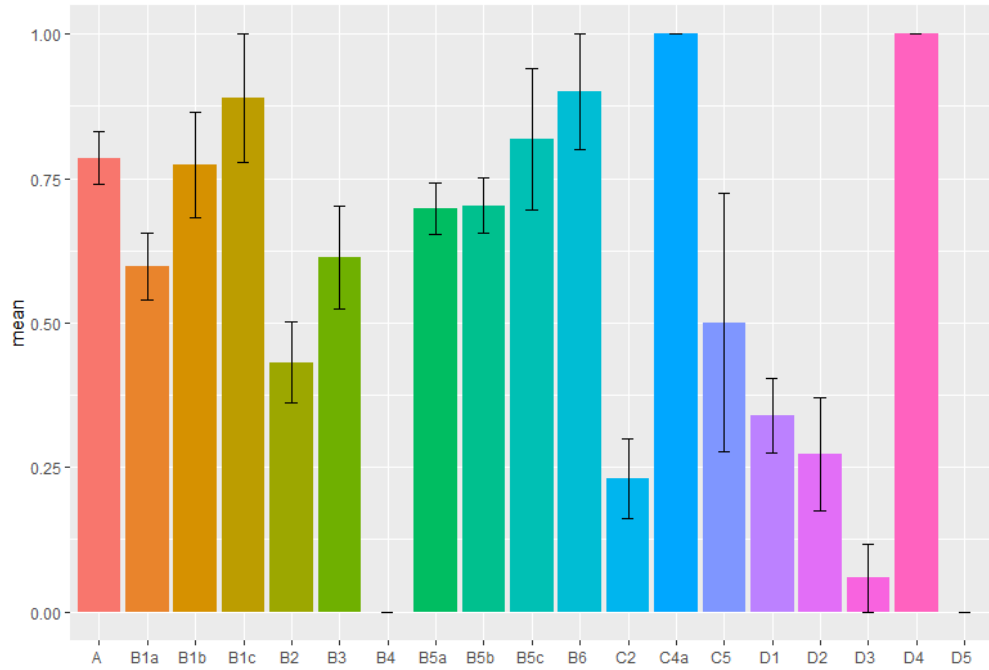
suuuerida ‘oath’ (Pa 131.c) ← WGmc *swar-iþō- (for *iusiurandum*),

have been lexicalized separately? Further investigation of the link between spelling and inflection in the Abrogans Pa is clearly in order, based on data that is not strictly limited to primary-umlaut candidates.

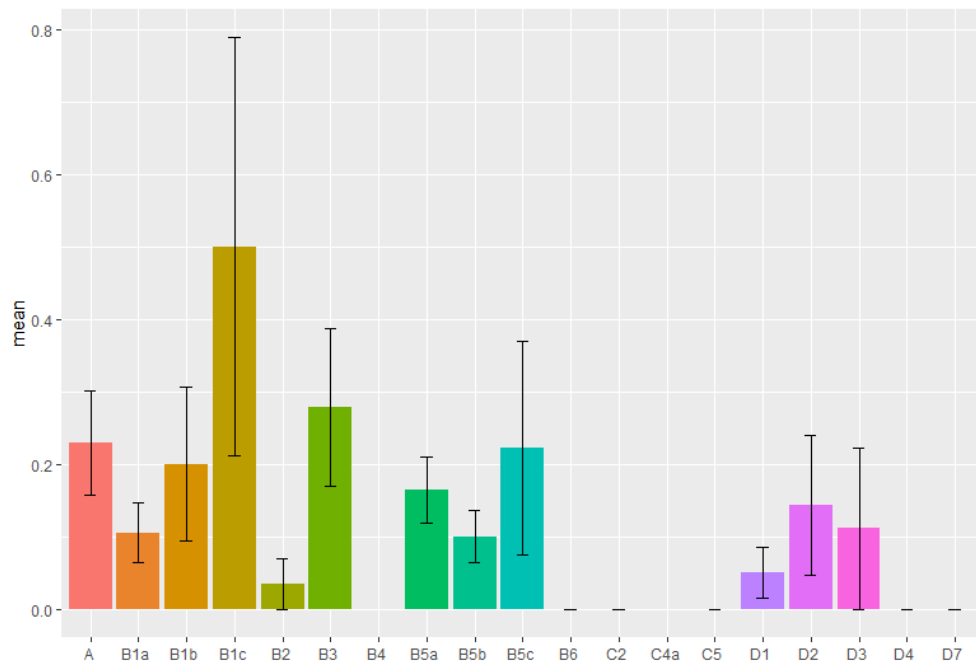
Besides this, the general morphological data of the Abrogans MSs are fairly unsurprising, even though Pa has a significantly lower overall success rate of umlaut compared to K. Both Pa and K have the A-types—tokens in which the trigger segment occurs in the lexical root itself—in a comfortable lead with the B-types (trigger falls in a ending that characterizes a noun or verb class) in second place, with D-types (trigger falls in a derivational suffix) in either third (Pa) or last (K) place.

4.3.a Abrogans K and Pa: Morphological Analysis—Umlaut by Morphological Sublevel

Taking a closer look at types B, C, and D, we break these levels down into the subgroups that comprise them.



Morphological relationship of trigger to token by sublevel (Abrogans K)



Morphological relationship of trigger to token by sublevel (Abrogans Pa)

Sublevel	Abrogans MS	# of tokens	Success of umlaut ± S.E.

B (stem trigger)	B1a: ja/jō heavy stem	K	72	59.72 % ± 5.82
		Pa	57	10.53 % ± 4.10
	B1b: ja/jō light stem	K	22	77.27 % ± 9.14
		Pa	15	20.00 % ± 10.69
	B1c: ja/jō root in *-r	K	9	88.89 % ± 11.11
		Pa	4	50.00 % ± 28.87
	B2: īn-stem	K	51	43.14 % ± 7.00
		Pa	29	3.45 % ± 3.45
	B3: i-stem, etc.	K	31	61.29 % ± 8.89
		Pa	18	27.78 % ± 10.86
	B4: n-stem	K	2	0.00 % ± 0.00
		Pa	1	0.00 % ± N/A
	B5a: W1 heavy stem	K	106	69.81 % ± 4.48
		Pa	67	16.42 % ± 4.56
	B5b: W1 light stem	K	91	70.33 % ± 4.82
		Pa	70	10.00 % ± 3.61
	B5c: W1 root in *-r	K	11	81.82 % ± 12.20
		Pa	9	22.22 % ± 14.70
	B6: S6/S7 *-j- infix	K	10	90.00 % ± 10.00
		Pa	8	0.00 % ± 0.00
C2: S6/S7 pres. ind.	K	39	23.08 % ± 6.83	
	Pa	34	0.00 % ± 0.00	
C4a: PP present opt.	K	4	100.00 % ± 0.00	

		Pa	1	0.00 % ± 0.00
	C5: comp/sup adjectives	K	6	50.00 % ± 22.36
		Pa	5	0.00 % ± 0.00
D (derivational trigger)	D1: *-iþō-	K	56	33.93 % ± 6.38
		Pa	40	5.00 % ± 3.49
	D2: *-īga-	K	22	27.27 % ± 9.72
		Pa	14	14.29 % ± 9.71
	D3: *-līka-	K	17	5.88 % ± 5.88
		Pa	9	11.11 % ± 1.11
	D4: *-inga-	K	2	100 % ± 0.00
		Pa	2	0.00 % ± 0.00
	D5: *-ilīna-	K	2	0.00 % ± 0.00
		Pa	N/A	N/A
	D7: *-iska-	K	N/A	N/A
		Pa	3	0.00 % ± 0.00

Within the more nuanced breakdown of levels B, C, and D, a particularly salient pattern between K and Pa is the fact that B1c (prosodically light-stemmed ja/jō-declension substantives in *-r) and B5c (prosodically light-stemmed W1 verbs in *-r) strongly favor orthographic umlaut—or at least disfavor it among the least of the sublevels—in both MSs, even though the error margins in Pa are considerable. B6 is highly umlaut-friendly in K but exhibits umlaut in 0 out of 8 tokens in Pa.

Although we already above touched on the stark absence of umlauting tokens in the C-type for the Pa MS, in the full spread that shows all subtypes of C (only three of which even

occur in either Abrogans MS: C2, C4a, and C5) a subclass that is particularly surprising on closer inspection is C2—umlaut in the 2SG and 3SG of S6 and S7 verbs—because it is actually attested a total of 34 times in Pa without a single success, and has a relatively very low success rate of umlaut (about 23%) even in K, a MS with an average overall umlaut success rate that is as high as 59%. Although they have fewer tokens to back them up, the C4a (essentially, instances of *megi* ← *magī ‘might (1/3SG)’; cf. *möge*) and C5 (comparative and superlative adjectives) are far more likely to show umlaut in Abrogans K. Why, then, are the 2SG and 3SG present indicative of Strong Class 6 and 7 verbs so unlikely to show orthographic umlaut? Nine tokens are successful, and they seem unremarkable, e.g.:

pislehit ‘fastens’ (K 118.13) ← *-slahid, for *expressit*

anastendit ‘treads on’ (K 149.3) ← *-standid, for *insistit*

kenkit ‘walks’ (K 173.3) ← *gangid, for *ambulat*

It is surprising that *pislehit* (as well as two other tokens based off of the same root) shows umlaut even across *h, since, as we saw above in 4.2.2, singleton *h is one the intervening consonants that permit umlaut the least in the K text. The answer to this question could really lie in scribal tradition. Presumably (judging from the state of things in the Pa MS, whose language is more archaic than that of K), the umlauted C-type forms in K are innovations made when copying from an original that did not show umlaut at least in these particular sublevels. The 9 successful C2 tokens may represent an attempt by the scribe (or a scribe) of the K MS to update the language, but if the common practice in the monastery in which the MS was created was not to remain as close to the original orthography as possible, there may yet have been the idea that conjugated verbs and declined substantives that might undergo umlaut (the C level) are to be spelled according to the vocalization of their infinitive, nominative singular, etc. Such a protocol

could account for why the C level never shows umlaut in Pa and why the C2 sublevel in particular shows umlaut in K with surprising rarity.

4.4 Abrogans K and Pa: Conclusions

From a phonological perspective, the Abrogans K and Abrogans Pa offer umlaut data that are very different in magnitude, with K exhibiting orthographic umlaut in around 59% of tokens and Pa in only about 12%, but crucially parallel in terms of what intervening singleton consonants and consonant clusters favor or disfavor umlaut. Neither MS exhibits the pattern that Otfrid V does wherein singleton consonants as a class tend not to inhibit umlaut at all but consonant clusters do (especially *hC). Instead, we find between Abrogans K and Pa patterns that are much more dependent on the nature of the particular consonant or cluster. Intervening *lC, for instance, disfavors umlaut in both K and Pa, but so do the *h and *k → */x.x/. It is difficult to account completely for the similarity in these patterns by citing the fact that both MSs are copied from an original that probably looked more like Pa, because it is difficult to envision a copying process for K that would greatly increase the overall percentage of orthographic umlaut while also maintaining more or less the same disparities in percentages between the umlaut success rate across various consonants. It is likely that performing similar analyses in the future on the Ra MS, and further on the fragmentary Abrogans texts, will help greatly in reconstructing the phonological system—especially the vowel system—of the now lost matriarch of the Kero-Hrabanus family that was the first to be glossed into the vernacular.

The same situation—with K showing a categorical breakdown of umlaut success similar to Pa but at a significantly greater average percentage—is roughly true for the four overarching morphological levels (A–D) as well, with the striking exception of the C level, which shows umlaut a total of 0 times in Pa despite the conditions occurring in 40 tokens in that manuscript.

Something similar may be at work in K, but for one reason or another the effect is limited to C2. (This is a tough judgment to make because C4a and C5 both have relatively low token counts.) Further work on Abrogans, building a corpus inclusive of the other attested MSs, should help to clarify what is going on between K and Pa here.

Abrogans K and Pa provide interesting commentary on the umlaut question because they attest for the most part the same Old High German glosses in two different southern dialects (Alemannic and Bavarian, respectively) and at two slightly different periods. K's provenance is at least a quarter-century earlier than that of Pa, though the orthography of K diverges from the ur-text more than Pa. This is clear from the fact that Pa admits orthographic umlaut far more seldom than K. But the two MSs have plenty in common, not only orthographically but in their content as well. The German gloss of the Latin contains a handful of lexicographical errors that arise in both K and Pa, e.g.:

adfinitas 'affinity, relationship' is glossed in both MSs (*az entim* Pa 124.d; *az andim* K 11.14) as though it were the prepositional phrase *ad fines* 'to the ends';

suffocatio 'strangling, suffocation' is a noun which is glossed as either a 3SG present indicative verb or past participle⁶⁵ in both MSs (*fordampfif* Pa 130.c; *firthemphif* K 113.10).

There are many more examples. In my view, intriguing though the umlaut data furnished by these two Abrogans MSs may be, it is difficult to make a claim about what they represent with respect to the MS family itself without a better understanding of the paleographic history of the family. The data at hand are perfectly informative for a dissertation about umlaut, and we have no choice but to make the tentative presumption that they represent the sound systems of their places and times of origin. But in order to obtain a fuller picture of the relationship between K

⁶⁵ The uninflected W1 participle is identical to the 3SG present indicative.

and Pa, further research will be required that looks more closely at the respective sound changes attested by all extant MSs of the glossary, rather than just one particular historical development.

Chapter 5: Minor OHG Texts

5.1 Minor OHG Texts: Background Information

The remaining analyses pertain to data from three “minor” Old High German sources. These texts are significantly shorter in length than the OHG from either Abrogans MS examined in 4 and far shorter than the text of Otfrid’s *Evangelienbuch* that was the subject of 3. As explained in 1, I selected the three texts that I did for this chapter in order to construct a set that not only offered some geographical and chronological diversity but just as importantly represented three distinct *text types* not yet encountered: one translation of Latin theological prose (the OHG *Isidor*), one interlinear gloss of a Latin hymnal (the so-called *Murbach Hymns*), and one fragment of alliterating verse (*Muspilli*). Although for the sake of convenience I will at times be analyzing the data from these alongside each other—as I did with the Abrogans Pa and K—my intent with this chapter is really to depict three separate “proofs of concept” for directions that future study of umlaut can take using the methods that I have used for Otfrid and Abrogans. The aim is less to suss out a common pattern between these three quite dissimilar texts and more to illustrate even further how the respective products of disparate times, places, and scribal traditions can feature their own idiosyncratic systems of how umlaut is at work. No further significance is meant by the order in which I will treat these three texts besides that they are in alphabetical order.

The Old High German *Isidor* is a translation of parts of *De fide catholica contra Iudaeos* “On the Catholic faith against the Jews” of Bishop Isidore of Seville. The MS of the primary fragment, which contains the Latin and German text in parallel columns, is Codex Parisinus Latinus 2326 of the Bibliothèque Nationale in Paris, although smaller fragments were also found in the monastery of Mondsee, Austria, as well as Vienna (“die Monsee-Wiener Bruchstücke”),

which contain only the German. The manuscript on which this dissertation will focus is the Paris MS. I relied on the edition published by Hans Eggers (1964), which is the 63rd installment of the *Altdeutsche Textbibliothek* founded by Hermann Paul.

The precise dating of the Paris text has been controversial, and well-reasoned estimates place the provenance of the main *Isidor* MS anywhere from the late 8th to the early 9th century. The orthography of the text is unique, which has made a solid determination of its dialectal provenance similarly problematic. Several consonants take multiple orthographic forms depending on their position in the word: the *z* affricate */t͡s/ is written *z* at the beginning or end of a word but *tz* medially; its corresponding fricative /s/ is written *zss* medially and *zs* at the end of a word. WGmc **g* is written as *gh* before front vowels but *g* elsewhere, except in the **ga-* prefix, which takes the form *chi-* (Bostock p. 110). The orthography, which is most often described as an innovative take on the Alemannic dialect, presents some features which point towards Franconian influence, e.g. the writing *uo* for the diphthongizing output of WGmc **ō*, which typically becomes *ua* in Alemannic. “It has been held that the system was a compromise between Franconian and Alemannic, for which Murbach in Alsace would have been a natural centre, but the arguments are inconclusive” (Bostock p. 111). Bostock argues that the writing of *ch* for **k* and *gh* for **g* (and, presumably, *quh* for **k^w*) “is probably a relic of the old Merovingian (Frankish) orthography” and that the Paris *Isidor* in fact contains no unambiguously Alemannic features. WGmc **b*, for which we would expect to find *p* in a southern dialect like Alemannic or Bavarian, is spelled *b* throughout. I see no reason to disagree with Bostock’s claim that the dialect underlying the unusual (but consistent) orthographical practices is a Franconian one.

Another translation from Latin is the glossed hymnal whose erstwhile residence in the monastery in Murbach (up until the 17th century) has given it the name “Murbach Hymns” or

“*die Murbacher Hymnen*”; in this chapter I will use one of those names or otherwise “MH.” The Murbach Hymns are not a sentence-by-sentence translation of a Latin original (like the Isidor, which at times even deviates significantly from the original) but a strict interlinear gloss of 26 Ambrosian hymns. Bostock writes that such glosses of liturgical materials into German had the purpose either of aiding German-speakers in learning Latin or of aiding non-German-speaking monks in learning German (p. 95); he posits the latter purpose for MH, since an early-9th-cent. inventory from the Reichenau monastery referred to certain materials as “*carmina diversa ad docendum theoriscam linguam*”⁶⁶ (p. 96). The monastery at Reichenau had the same founder as Murbach, a St. Parminius, and the Murbach monastery was populated with monks from Reichenau. The MS today is Codex Junius 25 of the Bodleian Library in Oxford and a facsimile can be found at the Digital Bodleian’s website. To gather the data for this dissertation I used a republication of Sievers’ 1874 edition (Sievers 1971).

The dialect is early 9th-century Alemannic (Bostock p. 96); Firchow, in her foreword to the new edition of Sievers (1971), gives the range of 810–817. The text is a word-for-word gloss of the Latin that aims to be so precise in rendering a German counterpart to each Latin word correct in number and case that the context of the sentence is frequently forgotten and grammatical ambiguities that are clear from context become grammatical impossibilities in the German.⁶⁷ Unlike the Abrogans glossary, which has many verbs in either the infinitive or the 3SG present indicative, but otherwise does not offer much in the way of inflectional variety, the MH exhibits many verbs conjugated for different persons, numbers, tenses, and moods.

⁶⁶ “Various songs for teaching the German language.”

⁶⁷ For example, in the third stanza of the first Hymn, the component words of *terrorem tempus hoc habet, quo...* “That time has terror, in which...” are rendered *egison zit daz hebit / demu ...*; *hoc* is a demonstrative in *tempus hoc*, with its gender agreeing with the noun, but neuter *daz* does not agree with feminine *zit*. Likewise neuter *quo*, a relative pronoun whose gender also depends on *tempus*, is echoed in the German by neuter *demu* which also does not agree with its antecedent, *zit*, in gender. (MH 1.3).

The final text of this chapter and of the corpus of this dissertation is the poetic fragment known, from a distinctive item in its lexicon, as the *Muspilli*. The text is approximately 105 lines of verse in the alliterating style of epic poetry found in the Hildebrandslied as well as in the Old English, Old Saxon, and North Germanic poetic traditions. These lines do not appear as such in the manuscript, but rather as a continuous body of text in certain otherwise blank pages (61r, 120v–121v) and lower margins (119v and 120r) of a MS that contains the *Sermo de symbolo contra Iudaeos* of Quodvultdeus Carthaginiensis (Pseudo-Augustinus). The thematic focus of the poem is the Day of Judgment, which is apparently what is referred to by its famous hapax legomenon *muspille* (a dative singular form, l. 57b). The MS referred to is Codex Latinus Monacensis 14098 of the Bayerische Staatsbibliothek in Munich, and a facsimile is accessible online at the Digitale-Sammlungen website of the Münchener Digitalisierungszentrum. For the purposes of the present study I consulted the version published part of Braune’s (1994, 17th ed.) *Althochdeutsches Lesebuch*.

The orthography, with *b, *g → p, k and *k → kh—as well as the digraph *uo* for the diphthongized reflex of PGmc *ō—is Bavarian. Bostock gives the early-to-mid 9th century as its time of origin, and writes that “[t]he whole text was written by a single scribe, and the variations in the orthography show that it was copied, not written down from memory or from dictation” (p. 121).

5.2 Minor OHG Texts: Phonological Analysis

We will begin, as in the previous chapters, with some raw counts from the three texts of this chapter:

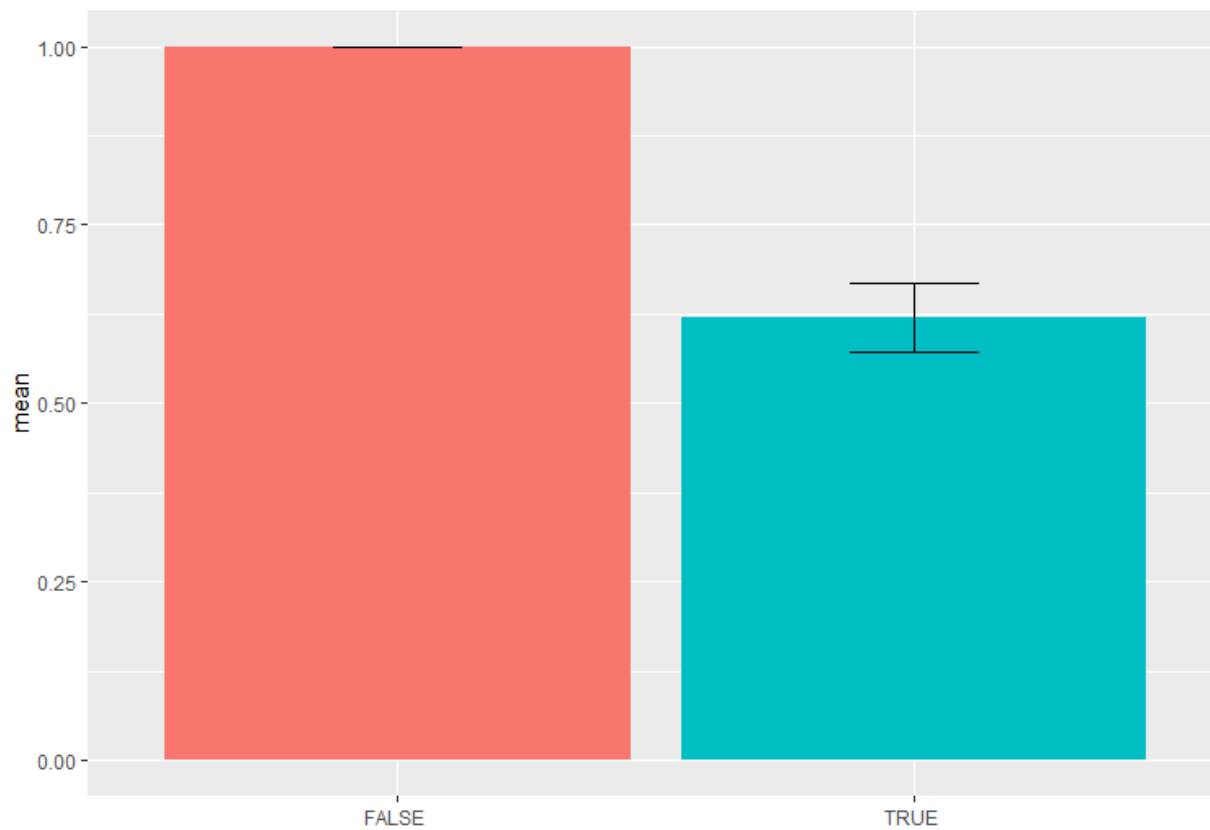
Text	Orthographic umlaut	Number of tokens	Percentage of tokens
	FALSE	38	33.33 %

Isidor (114 tokens)	TRUE	76	66.67 %
Murbacher Hymnen (139 tokens)	FALSE	40	28.78 %
	TRUE	99	71.22 %
Muspilli (43 tokens)	FALSE	12	30.00 %
	TRUE	28	70.00 %

All three of these texts actually exhibit an overall average success rate of orthographic umlaut that falls *between* those of the Abrogans MSs (K = 59%, Pa = 12%) and Otfrid V (77%). This is an important finding even despite the relatively low token counts in the three texts of this chapter. We may hypothesize at this early stage in the analysis of these texts that Isidor, MH, and Muspilli may have deeper patterns in common.

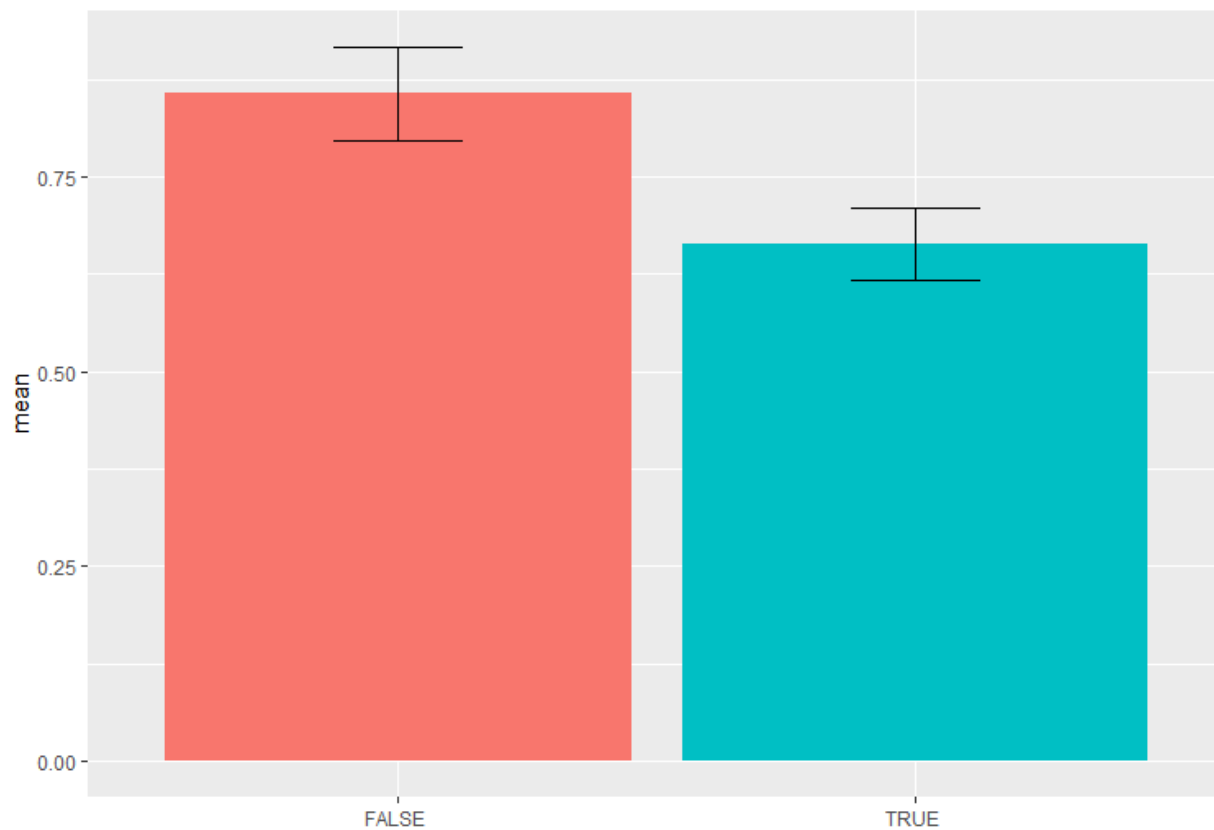
5.2.1 Minor OHG Texts: Phonological Analysis—Orthographic Trigger

Is there any correlation between presence of the orthographic trigger (as *i*) and the writing of primary umlaut (as *e*)?



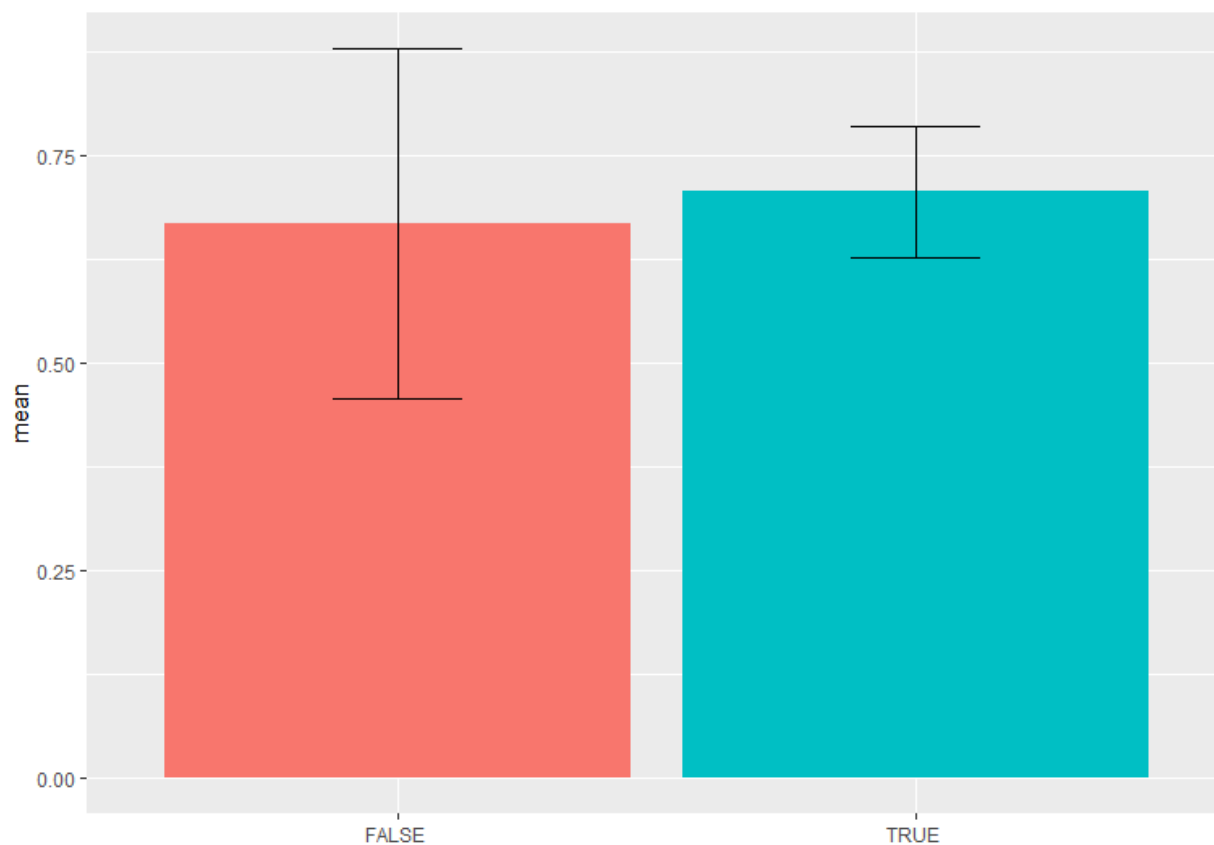
Orthographic marking of trigger (Isidor)

Text	Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
Isidor	FALSE	14	100 % \pm 0.00
	TRUE	100	62.00 % \pm 4.87



Orthographic marking of trigger (MH)

Text	Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
MH	FALSE	35	85.71 % \pm 6.00
	TRUE	104	66.35 % \pm 4.66



Orthographic marking of trigger (Muspilli)

Text	Orthographic trigger	Number of tokens	Success of umlaut \pm S.E.
Muspilli	FALSE	6	66.67 % \pm 21.08
	TRUE	34	70.59 % \pm 7.93

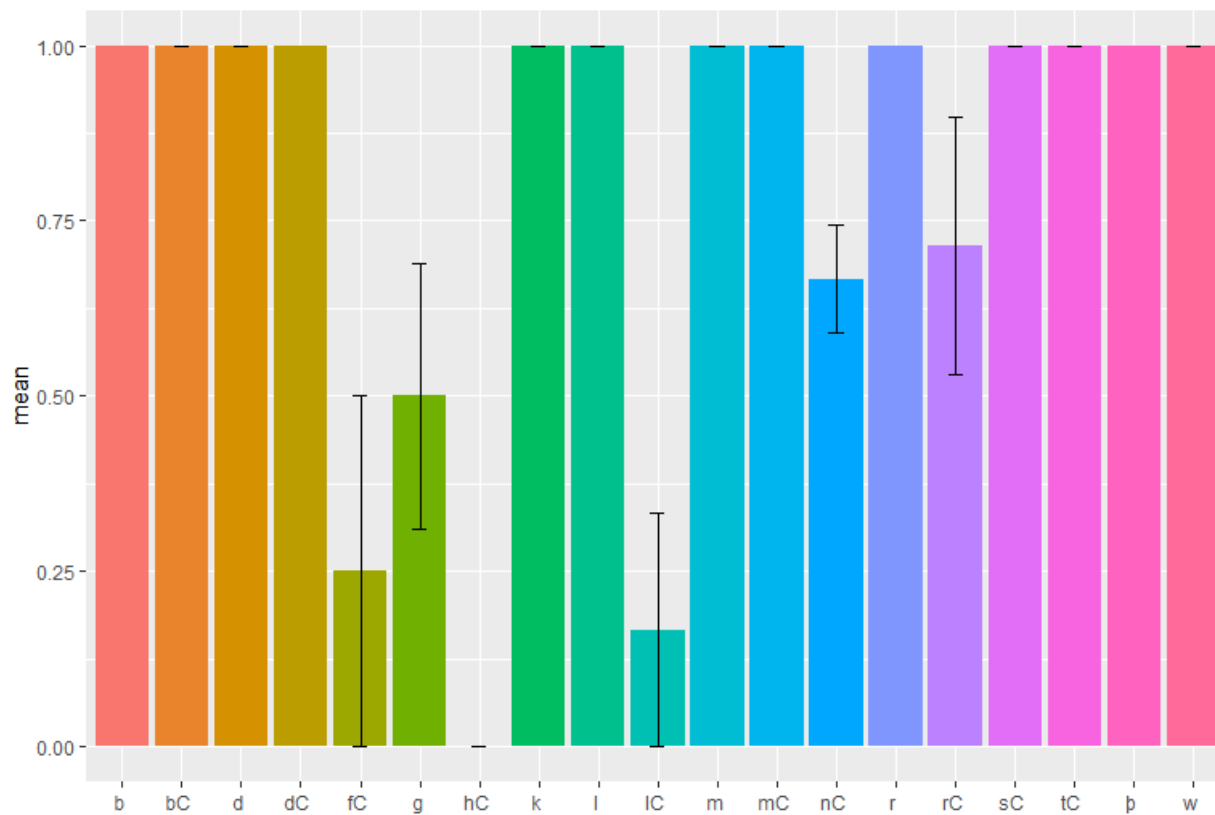
The token counts for all of these metrics are quite low, so any conclusion based on the above should be taken as suggestive and not conclusive. The most salient results are the first two, where Isidor and MH both reflect a pattern where the *absence* of the written trigger corresponds to a high success rate of written umlaut at a high level of confidence. This finding is stronger in Isidor than in MH. Even though tokens with written trigger greatly outnumber tokens with unwritten trigger in all three texts, triggerless tokens in Isidor and MH tend to show an unlauded vowel. The presence of an unlauded vowel and absence of an orthographic trigger is very good

evidence that the i-mutation of short *a has already ceased to be mere phonetic approximation and become a distinct phonemic alternation.⁶⁸ As for the Muspilli data, we can surmise that something else is going on—tentatively, that primary umlaut is at a different stage in the process of its phonologization—but the data are really too few to say anything conclusive.

5.2.2 Minor OHG Texts: Phonological Analysis—Intervening Consonant(s)

We now turn to the analyses of umlaut across particular consonants or consonant clusters for each text. The paragraphs interpreting each set of data will be separate for each text, rather than establishing an artificial comparison between these texts that might suggest a relationship similar to that between the two Abrogans MS, when in fact we really mean to compare them together with the results from Abrogans and Otfrid. There will also be no further breakdown of the data into separate graphs and tables with singletons versus clusters.

⁶⁸ Twaddell (1938) argues that this moment of *phonologization* occurs exactly at the time of the loss of the conditioning trigger (which, he admits, may occur over a period of time). “As soon as the difference between -i and -a has ceased to be significant,” he writes, referring to the merging of short unstressed vowels—although the same applies for loss of postconsonantal *j—“then (and not until then) does the difference between [y] and [u]”—for which we may substitute umlauted [e] and [a]—“become a significant difference,” i.e. one of which the speaker is aware and which can be considered phonemic and no longer merely phonetic (p. 179).



Intervening consonants (Isidor)

Consonants (WGmc)	# of tokens	Success of umlaut \pm S.E.
b	1	100 % \pm N/A
bC	2	100 % \pm 0.00
d	4	100 % \pm 0.00
dC	1	100 % \pm N/A
fC	4	25.00 % \pm 25.00
g	8	50.00 % \pm 18.90
hC	11	0.00 % \pm 0.00
k	3	100 % \pm 0.00

l	5	100 % ± 0.00
lC	6	16.67 % ± 16.67
m	5	100 % ± 0.00
mC	9	100 % ± 0.00
nC	39	66.67 % ± 7.65
r	1	100 % ± N/A
rC	7	71.43 % ± 18.44
sC	3	100 % ± 0.00
tC	2	100 % ± 0.00
þ	1	100 % ± 0.00
w	2	100 % ± 0.00

A salient feature of the above, with 11 tokens to back it up, is the total absence of written umlaut across *hC clusters. Clusters behaving similarly but without so strong a prohibition on umlaut are *fC and *lC, although these have large margins of error. The latter has more commonly behaved as a blocking environment in the texts analyzed so far. Interestingly, the only token in Isidor featuring umlaut across a *lC cluster is

zellando ‘telling’ (Isidor 47.432) ← WGmc *talljand-,

which also happens to be the only potential umlaut token with *lC in which the trigger phoneme is not written as *i*. In this case, the *j semivowel characteristic of the Weak Class 1 verbs, after causing gemination in the preceding *l, has been lost (or is, at least, lost with respect to the orthography). This fact makes sense when we take into account the insight made above in **5.2.1** that the *absence* of a written trigger correlates strongly with the *presence* of written umlaut in Isidor. In this text, the loss of postconsonantal *j appears to have the effect of pushing the

phonologization of umlaut—or at least the orthographic option of writing *e* for unlauded *a*—along.

It is difficult to know exactly what to do with the *rC cluster because the 7 tokens in which it occurs in Isidor comprise only 2 lexemes: the adjective *garwja- ‘ready’ (as the past participle of a W1 verb and as a feminine īn-stem noun), which never umlauts here, and various forms of the present participle of *nerien* ‘to heal, save,’ e.g.,

nerrendeo ‘savior’ (Isidor 49.456) ← WGmc *narjand-,

which always shows umlaut. This is a somewhat interesting situation because *rw, more so than other *rC clusters, exhibits the ability to block i-mutation. This could be the result of the phonetic nature of the *w sound or otherwise of an epenthetic vowel that seems so frequently to arise in the orthography with this word (e.g. *cakarauui* ‘garment, clothing’ (Abrogans K 15.9) ← *ga-garwja-) between *r and *w. At the same time, the extreme affinity that B5c verbs (W1 verbs in *-r) like *nerien* have in Isidor and Abrogans, relative to B5b types, suggest that these tokens with *rr* in Isidor that are so prone to umlaut could be misleading. It may be, in fact, that either *rr* is only orthographic, and the dialect of the Paris Isidor scribe actually only means */r/ there, or that the geminate consonant is phonologically real but the result of analogy to the B5b-type verbs (that do not end in single *-r and regularly geminate) following operation of the umlaut rule over single *r. We have already seen that the Isidor scribe has certain orthographic quirks like writing *zss* for the medial fricative */s̥s̥/ ← *t. More research is needed in the dialect of the Paris Isidor, and exactly what role the grapheme *r* plays in that text, to shed more light what is going on here.

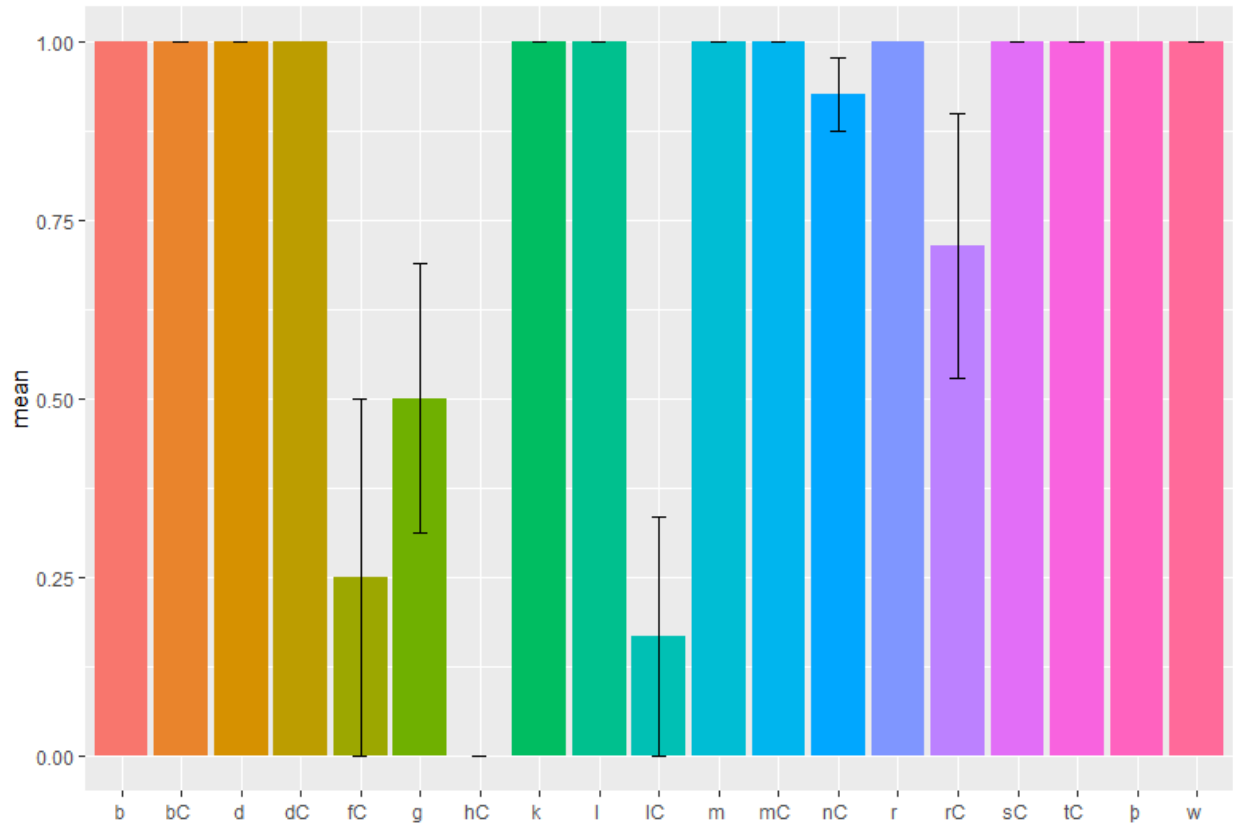
In the above data, the cluster *nC appears to favor umlaut less than in texts previously looked at. This brings us to another orthographic irregularity of Isidor: namely, the tendency to

write the *angila- ‘angel’ lexeme as *ang(h)il*, without orthographic umlaut. After careful consideration it seems clear to me that this practice does not reflect the phonology at all, but rather expresses the scribe’s knowledge that this particular word is a Latin loan; and, in fact, the Paris MS of Isidor is drawn up in parallel columns of Latin and German, so the scribe had the Latin *angelus* in their field of vision whenever deciding how to spell the German word. In only one instance does the scribe deviate from this protocol, namely

aengil (Isidor 7.51),

whose spelling with *ae* suggests (to me, anyway) an attempt to reconcile the German pronunciation of the umlauted vowel */e/ with the knowledge of the “correct” written vowel in the Latin. Another possibility is that *angil* with unumlauted */a/ really does reflect the scribal pronunciation; however, this could only plausibly be the result of a learned pronunciation (again, based on Latin). I see no reason to assume that this particular lexeme—with *nC, which has typically favored umlaut in what we have observed so far—dodged primary umlaut altogether.

It is therefore necessary to remove the *angila- lexeme from the Isidor dataset altogether in order to arrive at an accurate depiction of the success rate of primary umlaut across *nC:

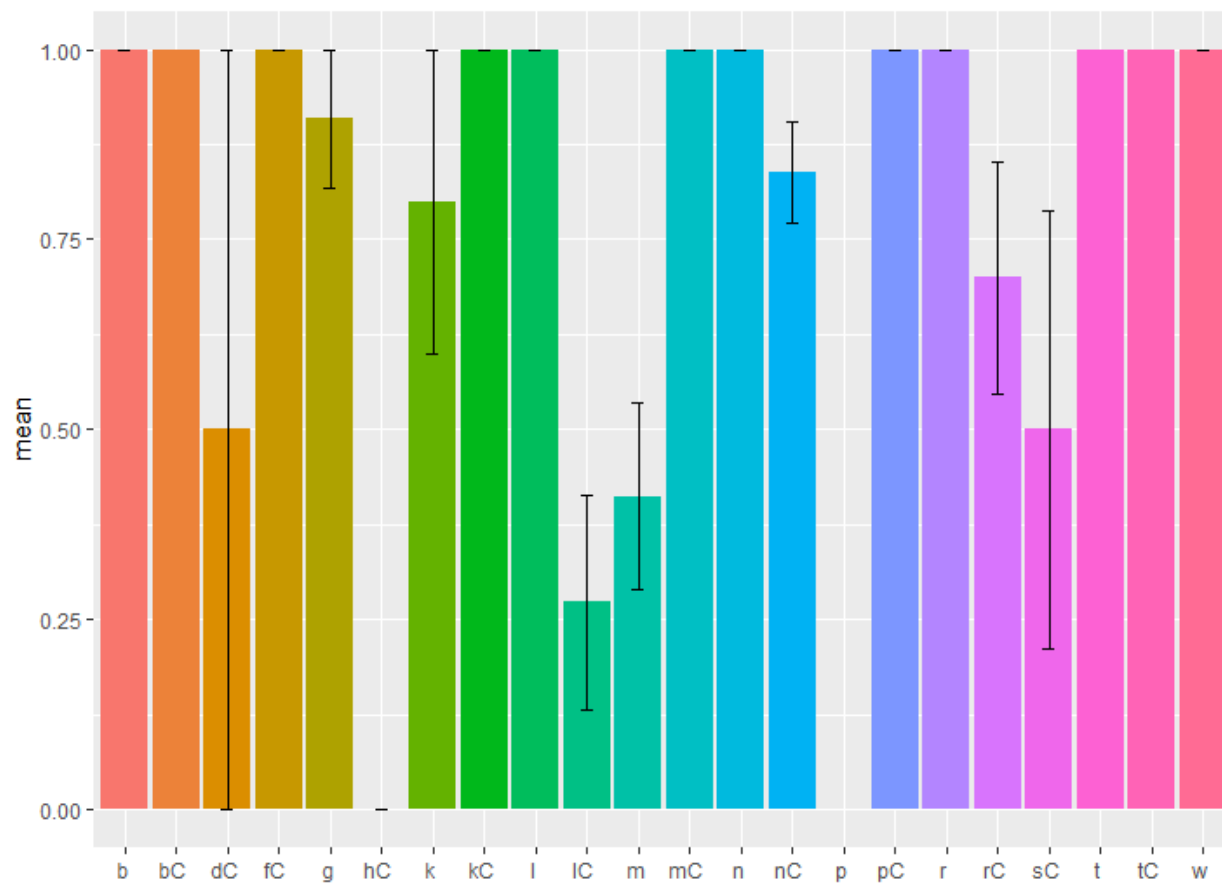


Intervening consonants (Isidor) with *angila- lexeme removed

Consonants (WGmc)	# of tokens	Success of umlaut \pm S.E.
nC	27	92.59 % \pm 5.14

Here we can see, with 12 tokens of *angila- \rightarrow *a(e)ng(h)il* removed, that the *nC cluster actually does favor umlaut to a high degree. A token count of 27 is still high for Isidor, so we can be confident about this finding.

At this point we will look at the Murbach Hymns and the role played by intervening consonants and clusters there.



Intervening consonants (Murbach Hymns)

Consonants (WGmc)	# of tokens	Success of umlaut \pm S.E.
b	6	100 % \pm 0.00
bC	1	100 % \pm 0.00
dC	2	50.00 % \pm 50.00
fC	11	100 % \pm 0.00
g	11	90.91 % \pm 9.09
hC	8	0.00 % \pm 0.00
k	5	80.00 % \pm 20.00

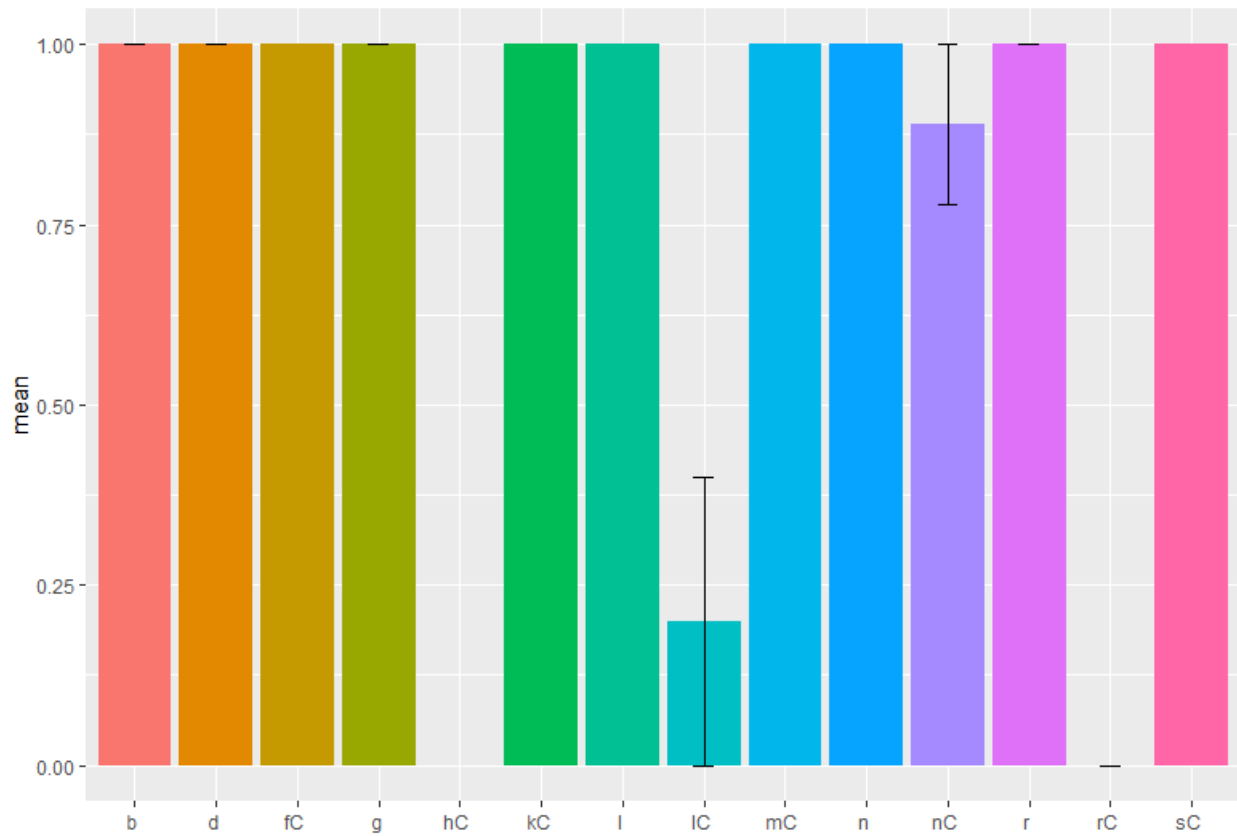
kC	2	100 % ± 0.00
l	3	100 % ± 0.00
lC	11	27.27 % ± 14.07
m	17	41.18 % ± 12.30
mC	2	100 % ± 0.00
n	2	100 % ± 0.00
nC	31	83.87 % ± 6.71
p	1	0.00 % ± N/A
pC	5	100 % ± 0.00
r	3	100 % ± 0.00
rC	10	70.00 % ± 15.28
sC	4	50.00 % ± 28.87
t	1	100 % ± N/A
tC	1	100 % ± N/A
w	2	100 % ± 0.00

Despite the low token count of 8, the absolute failure of umlaut across *hC is a robust finding that is not surprising. Similarly, *lC—though only with 11 tokens—appears not to strongly favor umlaut. MH deviates from Isidor, however, in the high umlaut success rate across *fC clusters, also with 11 tokens.

As in Isidor, *nC is the consonantal environment that occurs the most frequently by far. It strongly favors umlaut, though there are a few tokens with umlaut failure across *nC. As for the singleton consonants, *g strongly favors umlaut. Intervening *m, on the other hand, favors umlaut to a low degree (about 41%) that is surprising when compared with high success rates in

Otfrid and Abrogans K. I do not immediately have a suggestion on why *m appears to inhibit umlaut to such a degree in this text.

The final phonological analysis is on the Muspilli. Token counts are low in this text:



Intervening consonants (Muspilli)

Consonants (WGmc)	# of tokens	Success of umlaut \pm S.E.
b	3	100 % \pm 0.00
d	2	100 % \pm 0.00
fC	1	100 % \pm N/A
g	2	100 % \pm 0.00
hC	1	0.00 % \pm N/A

kC	1	100 % ± N/A
l	1	100 % ± N/A
lC	5	20.00 % ± 20.00
mC	1	100 % ± N/A
n	1	100 % ± N/A
nC	9	88.89 % ± 11.11
r	6	100 % ± 0.00
rC	6	0.00 % ± 0.00
sC	1	100 % ± N/A

There is not much we can conclude here with confidence, with such low token counts, but a few findings are worth mentioning. The traditional blocking cluster *hC only occurs once in this text in a word that is potentially subject to primary umlaut—*mahtigo* (Muspilli 31a)—and umlaut does not occur in that instance.

The clusters *lC, *rC, and *nC are somewhat more telling than the rest because they offer 5, 6, and 9 tokens respectively, which are among highest counts for this text. As we have seen in previous texts, there is a stark contrast between them, with *nC exhibiting a very high umlaut success rate and *lC performing closer to *hC but not quite zero. The only token to umlaut *lC in this text is

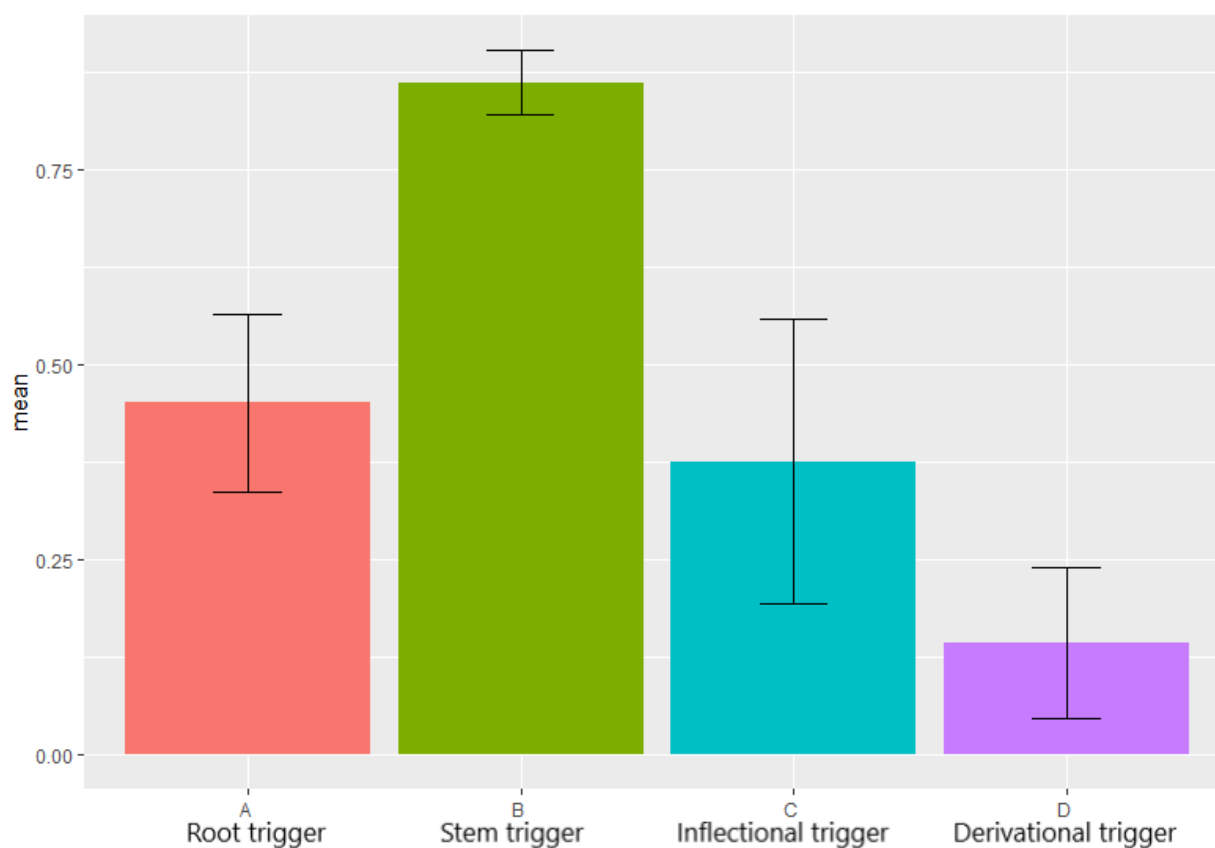
hella ‘hell’ (Muspilli 21a) ← WGmc *halljō-,

a feminine jō-stem noun which historically has *j in every part of its paradigm. In this text, however, *rC beats even *lC to match *hC for a total block on umlaut.

5.3 Minor OHG Texts: Morphological Analysis

After looking at how various intervening consonants and clusters play out in the distribution of primary umlaut in the Isidor, Murbach Hymns, and Muspilli, we will now do the same for the four morphological tiers—the levels A, B, C, and D as laid out in 2.2.e—through which a trigger segment can be related to the target vowel short *a. As with the phonological analyses above, I will treat each of the three OHG texts of this chapter individually before moving on to the next, as opposed to presenting and analyzing their results in the same paragraphs as I did for Abrogans K and Pa.

The first of these is the OHG Isidor:



Morphological relationship of trigger to token (Isidor)

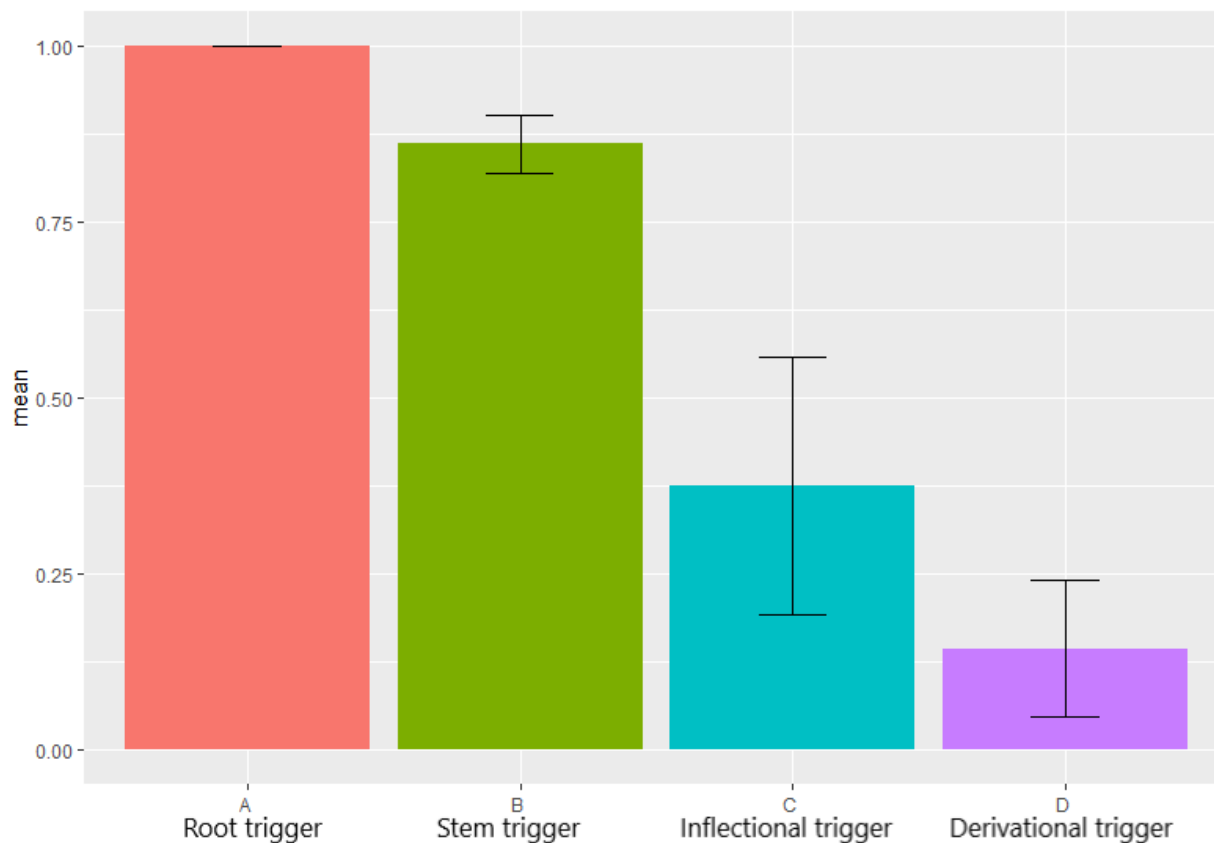
Level	# of tokens	Success of umlaut ± S.E.
A (root)	20	45.00 % ± 11.41

B (stem)	72	86.11 % ± 4.10
C (inflection)	8	37.50 % ± 18.30
D (derivation)	14	14.29 % ± 9.71

Apart from the unexpectedly low success rate of umlaut in the type-A tokens (in which the trigger segment arises in a bisyllabic word root with the target vowel *a in the first syllable), which I will account for shortly, the distribution of umlaut success averages across the four morphological categories offers no surprises. The B-type, which is populated by the most tokens by far, shows orthographic umlaut at a solid 86%.

Although we cannot regard the findings for C- and D-types as conclusive because there are so few tokens of each in this text, the pattern suggested is that D-types have a lower umlaut success rate than C-types, which conforms to our findings in *Otfrid* and the *Abrogans* texts.

The improbably low umlaut rate of A-type words is caused by the same phenomenon that we observed above in 5.2, where every tokens of the *angila- ‘angel’ lexeme in *Isidor*, except for one, was spelled with *a* instead of *e*. This made for an anomaly in the data for the *nC cluster, which is normally quite favorable towards umlaut, and this was resolved when all tokens of *angila- were removed from the *Isidor* dataset. I will now do the same for these results:

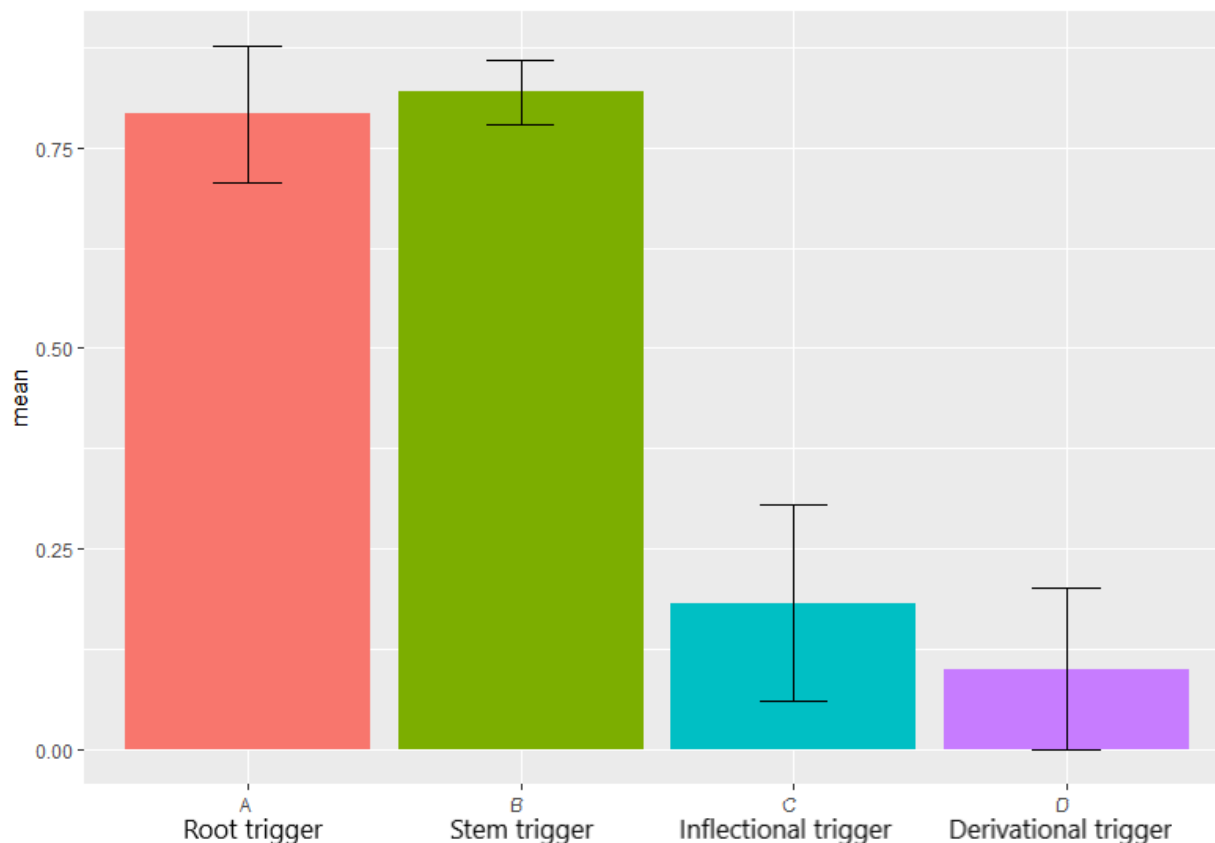


Morphological relationship of trigger to token (Isidor) with *angila- lexeme removed

Level	# of tokens	Success of umlaut \pm S.E.
A (root)	8	100 % \pm 0.00

Although Isidor contains only 8 tokens of the A type that are not some form of *a(e)ng(h)il* ‘angel,’ these new data conform much better to our expectations, with 100% of A-type tokens now showing umlaut. We can count this as another piece of evidence towards the likelihood that the spelling *ang(h)il* does not represent the scribe’s phonological reality, or—if it does—represents a phonological reality that is historically an innovative learned pronunciation based on Latin orthography and pronunciation.

Next we will look at the same general morphological data for the Murbach Hymns:



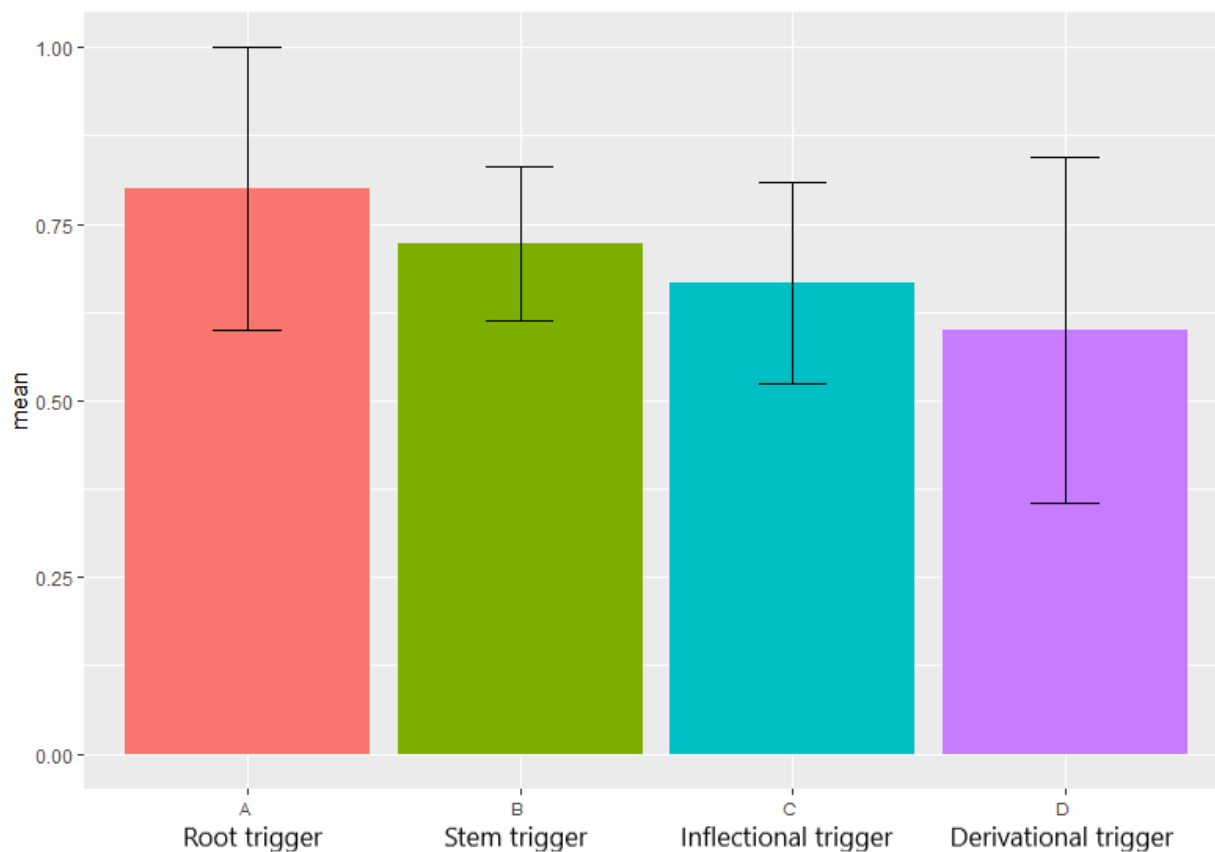
Morphological relationship of trigger to token (Murbach Hymns)

Level	# of tokens	Success of umlaut \pm S.E.
A (root)	24	79.17 % \pm 8.47
B (stem)	94	81.91 % \pm 3.99
C (inflection)	11	18.18 % \pm 12.20
D (derivation)	10	10.00 % \pm 10.00

Firstly we note that the averages are somewhat lower overall than what we found in Isidor, with not even the A-type nearing 100% umlaut success. The Murbach Hymns are actually the first text encountered so far in this study for which the average umlaut success rate for the B-types is higher than that of A (that is, after we corrected for the *angila- token in Isidor). As in Isidor, the token counts for the C and D token types are rather low, and statistically—considering

the large error margins on each—it seems more the result of chance than anything else that C happens to have a higher rate of umlaut success than D.

Finally, we look at an analysis of the four main morphological levels in the Muspilli.



Morphological relationship of trigger to token (Muspilli)

Level	# of tokens	Success of umlaut ± S.E.
A (root)	5	80.00 % ± 20.00
B (stem)	18	72.22 % ± 10.86
C (inflection)	12	66.67 % ± 14.21
D (derivation)	5	60.00 % ± 24.49

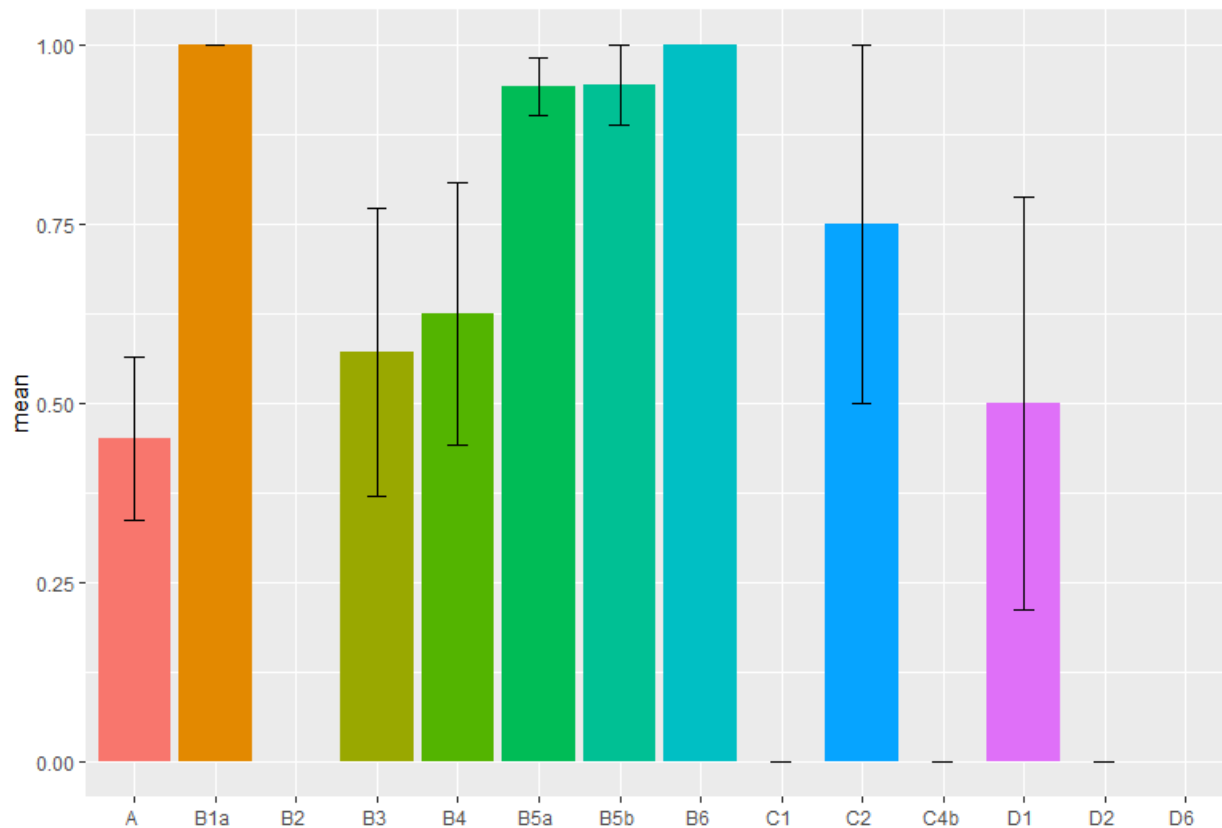
The four morphological tiers pattern more closely to one another in the Muspilli than in other texts that we have looked at. Of course, at this point more than ever we ought to be mindful

of the very low token counts for each level—with the most populous level, B, offering only 21 tokens—as well as the sizeable margin of error on each. That said, despite most of these measurements falling within the considerable margins of error of the others, Muspilli actually conforms to the pattern established in other texts, with A having the highest percentage of umlaut, then B, followed by C, with D having the lowest.

5.3.a Minor OHG Texts: Morphological Analysis—Umlaut by Morphological Sublevel

We will now break levels B, C, and D down further to compare the success rates of umlaut generated from triggers in different parts of the morphology. At this point, the graphs and especially error calculations are more of a formality than anything. With so few tokens overall for each of these texts, and even fewer for individual morphological sublevels, what we are really looking for is any results that are particularly surprising, rather than how well these meager token counts adhere to some trend.

We begin with Isidor:



Morphological relationship of trigger to token by sublevel (Isidor)

Sublevel		# of tokens	Success of umlaut \pm S.E.
B (stem trigger)	B1a: ja/jō heavy stem	2	45.00 % \pm 11.41
	B2: ĩn-stem	1	0.00 % \pm N/A
	B3: i-stem, etc.	7	57.14 % \pm 20.20
	B4: n-stem	8	62.50 % \pm 18.30
	B5a: W1 heavy stem	35	94.29 % \pm 3.98
	B5b: W1 light stem	18	94.44 % \pm 5.56
	B6: S6/S7 *-j- infix	1	100 % \pm N/A
C (inflectio)	C1: weak (n-stem) adjectives	2	0.00 % \pm 0.00
	C2: S6/S7 pres. ind.	4	75.00 % \pm 25.00

	C4b: PP present opt.	2	0.00 % ± 0.00
D (derivational)	D1: *-īþō-	4	50.00 % ± 28.87
	D2: *-īga-	9	0.00 % ± 0.00
	D6: *-nisja-/*-nisjō-	1	0.00 % ± N/A

Isidor features relatively high token counts for the B5 sublevel (that is, W1 verbs). B5a, B5b, and B5c (of which only the first two are attested in this text) have had high rates of umlaut success in other texts and Isidor is not an exception to this pattern.

A place where Isidor apparently diverges from the precedent set by Otfrid and Abrogans, however, is the B2-sublevel, which refers to the feminine īn-stem nouns (such as *elti* ‘oldness, age’ (Otfrid 1.9.11) ← *ald-īn-), which contain the trigger segment *ī all throughout their paradigm but are usually abstract nouns constructed from non-umlauting a/ō-stem adjectives. But the failure of umlaut in the sole B2 token in Isidor,

garauui ‘clothing’ (Isidor 13.92) ← *garwīn-,

can be ascribed—as noted above in 5.2.2—to either a blocking effect by the *rC cluster or simply the presence of an epenthetic vowel that breaks this word into three syllables.⁶⁹

The B4 sublevel (n-stem nouns with an umlaut trigger in the stem ending *-in*) is worth mentioning here because we encounter tokens showing umlaut orthographically for the first time in this corpus. In fact, 5 of the 8 B4 tokens show umlaut, and these seem actually to be segregated by lexeme. All tokens of the lexeme *namo* ‘name’ show umlaut, e.g.,

nemin ‘name (DAT SG)’ (Isidor 19.151) ← PGmc *namini;

the other three tokens all belong to the *forasago* ‘prophet’ lexeme, e.g.,

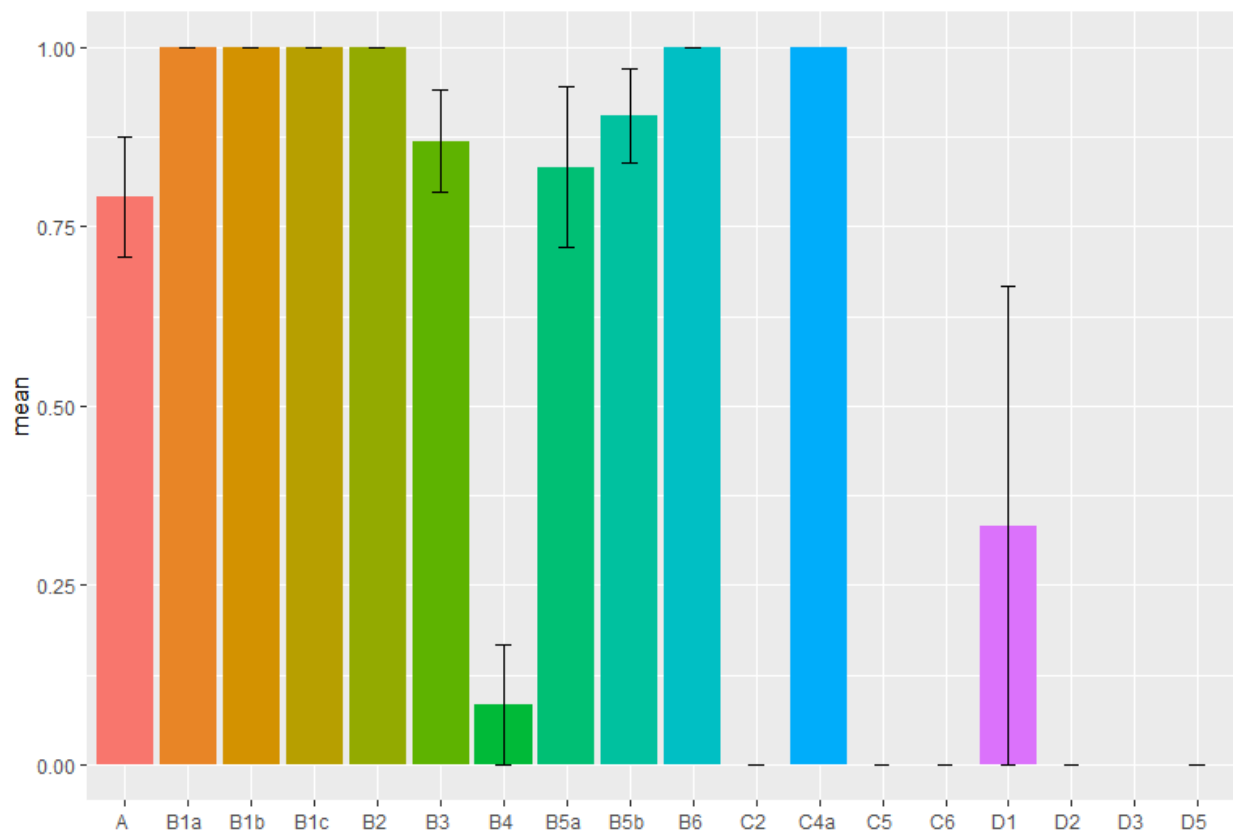
⁶⁹ The *garwja- lexeme is of special interest because it contains *w as the second element in its cluster. For more on this—since the un-umlautability of *garwja- is a feature of more texts in this corpus than just Isidor—see my comment on this in the Conclusion, 6.1.

forasagin ‘prophet (DAT SG)’ (Isidor 49.444) ← PGmc *-sagini,

none of which shows *e* for the potentially umlauting vowel. The phonological data above in 5.2.2 show that *g tends to be more of an umlaut blocker than *m in Isidor, and we may tentatively conclude that that inequality is at play here.

Certainly attributable to phonological causes is the absence of umlauting tokens of C4b. This sublevel refers to umlaut triggered by the preterite-optative ending *-ī of preterite-present verbs. Two of these occur in Isidor (15.109 and 23.192) and both are 3SG *mahti* *mahtī ‘might be able,’ which has the *hC cluster that does not permit umlaut in this text.

This brings us to the Murbach Hymns:



Morphological relationship of trigger to token by sublevel (Murbach Hymns)

Sublevel	# of tokens	Success of umlaut ± S.E.

B (stem trigger)	B1a: ja/jō heavy stem	7	100 % ± 0.00
	B1b: ja/jō light stem	6	100 % ± 0.00
	B1c: ja/jō root in *-r	3	100 % ± 0.00
	B2: īn-stem	7	100 % ± 0.00
	B3: i-stem, etc.	23	86.97 % ± 7.18
	B4: n-stem	12	8.33 % ± 11.24
	B5a: W1 heavy stem	12	83.33 % ± 12.24
	B5b: W1 light stem	21	90.48 % ± 6.56
	B6: S6/S7 *-j- infix	4	100 % ± 0.00
C (inflectional trigger)	C2: S6/S7 pres. ind.	2	0.00 % ± 0.00
	C4a: PP present opt.	1	100 % ± N/A
	C5: comp/sup adjectives	2	0.00 % ± 0.00
	C6: pronominal <i>-iu</i>	5	0.00 % ± 0.00
D (derivational trigger)	D1: *-iþō-	3	33.33 % ± 33.33
	D2: *-īga-	4	0.00 % ± 0.00
	D3: *-līka-	1	0.00 % ± N/A
	D5: *-ilīna-, *-ilan-	2	0.00 % ± 0.00

As in Isidor, the Murbach Hymns offer some umlauting n-stem nouns (just one success out of a total of 12 tokens). These again appear to be functioning on a lexical basis, where tokens of

lichamin ‘body (DAT SG)’ (MH 2.8d) ← PGmc *līka-hamini

staffin ‘step (DAT SG)’ (MH 20.3c) ← PGmc *stapini

and even *namin* ‘name (DAT SG)’ (MH 7.9c) ← PGmc *namini (unlike in Isidor)

do not show orthographic umlaut, but

henin ‘rooster (DAT SG)’ ← PGmc *hanini

does.

All extant varieties of the B1 (ja(n)/jō(n)-stem substantives) and B5 (W1 nouns) exhibit high rates of umlaut, even though token counts are very low for the former. The situation in which B5a (heavy-stem W1 verbs) shows umlaut in the umlautable parts of its paradigm less often than does B5b (light-stem W1 verbs with geminated final consonants) echoes what we found in Otfrid.

Like in Abrogans Pa, C-types are poor umlauters in MH. Noteworthy here are the two Strong Class 6 verbs conjugated in the 3SG present indicative,

harstant[it] (MH 19.3d) ← *-standid

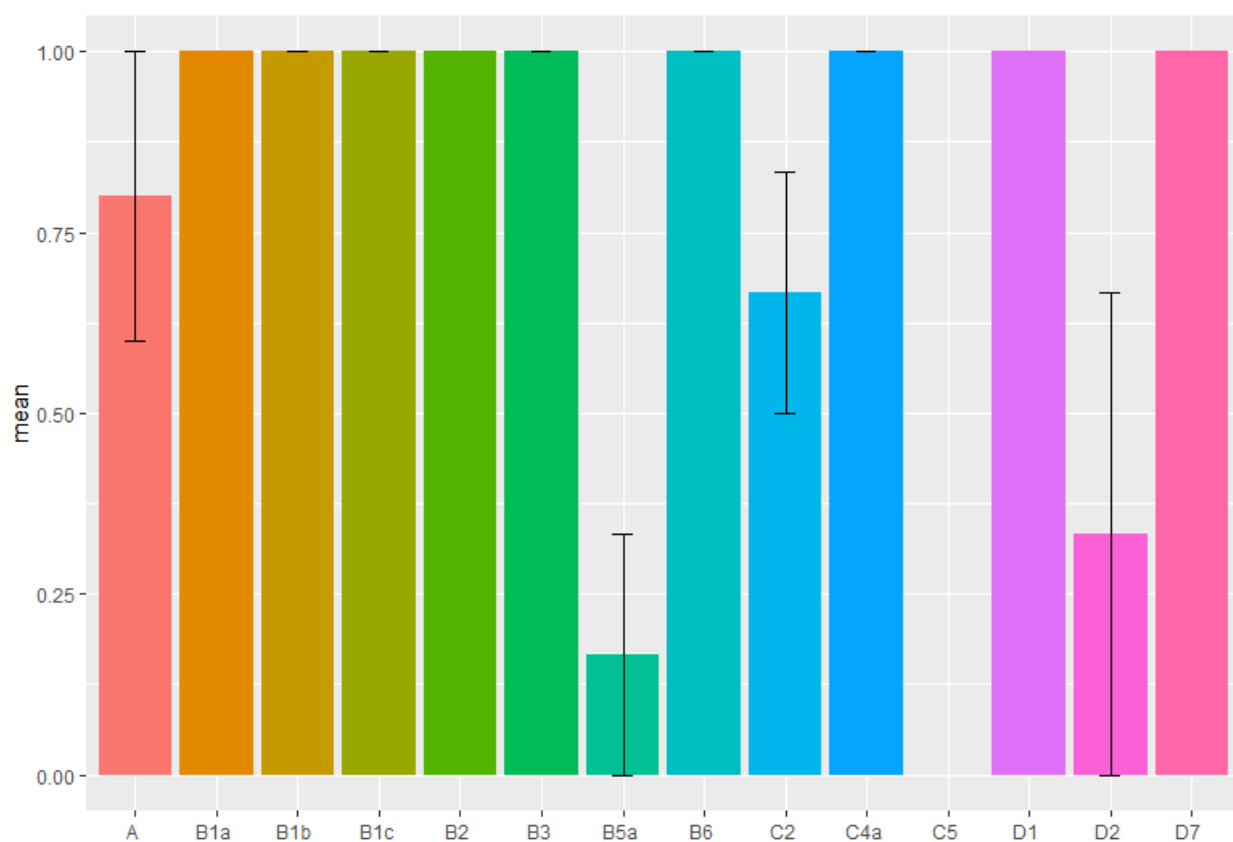
uuaskid (MH 25.4d) ← *waskid,

that we would expect to show umlaut but do not. As I suggested for Abrogans in **4.3.a**, it may be that there was a scribal practice of writing the vowel of, say, the infinitive (e.g. *harstantan*, *uuaskan*) despite that in certain inflected forms the vowel phoneme was replaced by *e*. On the other hand, the situation in texts like these could also be indicative of the leveling out of unumlauted forms from the paradigm on analogy to forms like the infinitive or 1SG present indicative.

While the data above superficially suggest that a similar explanation could account for the absence of umlaut in D-type tokens (derived words where the derivational suffix contains a phoneme capable of inducing umlaut in the tonic syllable), a close look at the dataset shows that all but three of the D types in MH—one of which does undergo umlaut, across *nC: *ufhengida* ‘hanging up, suspension’ (MH 10.2c)—contain either the cluster *IC or *hC. Therefore, the poor

performance of umlaut in words with a derivational-suffix trigger in MH is most easily ascribed to phonological causes.

The last text to be the subject of our deeper-level morphology-based analysis is the Muspilli.



Morphological relationship of trigger to token by sublevel (Muspilli)

Sublevel		# of tokens	Success of umlaut \pm S.E.
B (stem trigger)	B1a: ja/jō heavy stem	1	100 % \pm N/A
	B1b: ja/jō light stem	2	100 % \pm 0.00
	B1c: ja/jō root in *-r	3	100 % \pm 0.00
	B2: īn-stem	1	100 % \pm N/A
	B3: i-stem, etc.	2	100 % \pm 0.00

	B5a: W1 heavy stem	6	16.67 % ± 16.67
	B6: S6/S7 *-j- infix	3	100 % ± 0.00
C (inflectional trigger)	C2: S6/S7 pres. ind.	9	66.67 % ± 16.67
	C4a: PP present opt.	2	100 % ± 0.00
	C5: comp/sup adjectives	1	0.00 % ± N/A
D (derivational)	D1: *-iþō-	1	100 % ± N/A
	D2: *-īga-	3	33.33 % ± 33.33
	D7: *-iska-	1	100 % ± N/A

In the Muspilli we for the most part find umlaut where it is able to occur. There are no jarring irregularities that immediately need to be accounted for. The single token of C5 (trigger in the comparative or superlative suffix) that occurs in the text fails:

altist ‘oldest’ (Muspilli 22b) ← PGmc *ald-ista-

but we can ascribe this to the umlaut-blocking tendencies of the *IC cluster that we have already observed, despite the successful *IC token *hella* (Muspilli 21a).

There are only 5 D-type tokens in the Muspilli. All of them exhibit umlaut except for two of the D2 (*-īga- suffix) type,

paluuic ‘dreadful’ (Muspilli 26b) ← PGmc *balw-īga-

mahtigo ‘mighty’ (Muspilli 31a) ← PGmc *maht-īga-,

but both of these can be accounted for on phonological grounds (with the blocking clusters *IC and *hC, respectively).

5.4 Minor OHG Texts: Conclusions

Many of the phonological tendencies in the three texts that made up the subject of this chapter—the Isidor, the Murbach Hymns, and the Muspilli—were shared by either two or all

three of them and were observed as well in Otfrid and Abrogans. The umlaut-blocking power of *hC clusters is absolute in all three, as is the tendency for *IC clusters to yield a low but usually non-zero rate of umlaut success. The blocking role played by certain other consonants and clusters, such as *fC in Isidor or *rC in Muspilli, appears to vary from text to text and could constitute a real dialectal difference in phonology. On the contrary, the cluster *nC—besides always being among the most commonly occurring environments—seems to favor umlaut in all texts. Certain singleton consonants, like *m in the Murbach Hymns, appear to disfavor umlaut without good reason. Unfortunately, the datasets of the three texts of this chapter are so sparsely populated with tokens that it is difficult to deduce robust patterns with confidence.

With regard to the role played by morphology in the distribution of orthographic umlaut, there were some idiosyncratic results in this chapter. The lexically-divided results in the B4 sublevel (n-stem nouns) in Isidor and MH could suggest that n-stems with short *a have been grammaticalized into an umlauting and a non-umlauting declension in those dialects, where the assignment into one declension or the other varies by lexeme. On a broader scale, MH is the only text in the corpus of this dissertation to have a higher average rate of umlaut success in the B-type tokens than in the A-type tokens (following the removal of the problematic *angila- tokens from the Isidor set). However, low token counts and wide error bars prohibit us from the ability to make a more certain assessment. In an appeal to the general unpredictability that accompanies low token counts, I would be reluctant to point to a minor anomaly like C slightly edging out B in the MH as a significant deviation from the pattern that appeared so robustly in Otfrid, with A having the highest rate of umlaut success, followed by B, C, and D.

Chapter 6: Conclusions

6.1 General Discussion of Findings

A primary finding of this study has been that the state of umlaut across the Old High German-speaking area, like the language itself, is anything but monolithic. Vastly different patterns in how umlaut of short *a is handled both in the phonology and the grammar have surfaced across the six OHG texts that make up the corpus of this dissertation. Otfrid V, for example, by far the lengthiest text in the corpus, presents us with a snapshot of umlaut from late 9th-century South Rhenish Franconia that largely conforms with how primary umlaut functions in much of the modern dialect continuum. From the perspective of intervening consonants, Otfrid umlauts across the board, with clusters nevertheless favoring umlaut slightly less than singleton consonants intervening (and, of course, with *hC blocking umlaut almost entirely). From a morphological perspective, there is a high success rate of umlaut in all possible grammatical forms that it can arise in, except when phonological factors intervene (e.g., the absence of C3-type umlaut in *mahtī → *mahti* ‘might be able’) and in certain derivational suffixes (which is also possibly attributable to phonologically conditioned epenthetic vowels; see 3.3.a). These tight patterns attested so robustly in Otfrid break down as we examine older texts, which present states of umlaut that have developed in various other ways, some of which foreshadow parallel gaps in umlaut in their corresponding modern dialects (see 6.3 below).

The umlaut-blocking tendency of a cluster having the form *hC is absolute in all six corpus texts except for Otfrid, where this rule is violated five times. They are the following tokens:

uuehsit ‘grows’ (Otfrid 1.8.24) ← *wahsid

mehti ‘powers (ACC PL)’ (Otfrid 2.17.22) ← *mahtī

uuehsit ‘grows’ (Otf rid 3.7.73) ← *wahsid

uuehsit ‘grows’ (Otf rid 3.7.79) ← *wahsid

yruuehsit ‘grows up’ (Otf rid 4.7.11) ← *-wahsid

Each of these has a strong morphological reason to display umlaut: the *uuehsit* tokens because umlaut in the 2SG and 3SG of Strong Class 6 and 7 (type C2) otherwise have such a high rate of success in Otf rid (a sign that the *a* → *e* alternation has long since been codified in the grammar), and the *mehti* token because parts of the i-stem paradigm (type B3; here, the accusative plural) likewise show umlaut with extreme regularity in this text. It is no coincidence that the scribe writes *mehti* for the i-stem accusative plural, WGmc *mahtī, but never for the preterite optative preterite-present verb *mahti* ← *mahtī, which historically has an identical form. The difference for Otf rid is morphological, not phonological.

If there is a cluster whose propensity for blocking umlaut is second (albeit a distant second) to *hC, it is *lC. This does not apply so much for Otf rid as it does for the two Abrogans MSs examined as well as the three “minor” OHG texts. The cluster *rC as a blocker is less widespread, although in the (Alemannic) Abrogans K and the (Bavarian) Muspilli it disfavors umlaut to a greater degree than most other clusters. In Otf rid, *rC mostly only functions as a blocking cluster when the cluster-final consonant is /w/, e.g.,

garauuemes ‘we prepare’ (Otf rid 2.3.55) ← WGmc *garwjam-.

This blocking has been attributed (Iverson, Davis, & Salmons 1994) to the [dorsal] feature of pre-OHG */w/; the tendency for OHG liquids to produce epenthetic vowels when adjacent to labial or velar consonants (Howell 1986; Reuter-crona 1920), also observed in D-type tokens like

armilichun (Otf rid 3.14.120)

and

armalichen (Otfrid 4.23.2)

could also be at play in further removing the target segment from the trigger.

So much for the losers in the umlaut game. There are few exceptional winners, but *nC is a cluster with a relatively high token count in every text that tends to perform very well in comparison with other consonantal environments. When we approach primary umlaut as an intermediate step between the height-harmony rule in earlier Germanic and the general frontness harmony of secondary umlaut, there is a logic to the idea that coda *n following the target *a would assist in the tendency to raise. The earlier height harmony itself closely followed the raising of *e → *i before a coda consonants with the [+nasal] manner of articulation in the pre-Germanic period (e.g. PIE *séng^{wh}onom → PGmc *sing^wanaŋ ‘to sing’), which phonologically paved the way for the adjustment of *e → *i before vowels with the feature [+high]; and *i~*u → *e~*o before *a, the vowel with feature [+low] (all foreshadowing *a → *e before front high *i). The trend for *nC to favor primary umlaut, however, does not seem to extend to the other nasal phoneme, *mC, which perhaps marks a divergence from the featural patterns underlying prenasal raising in early Proto-Germanic.

Morphological patterns in marking of umlaut are more consistent across all texts examined in this study, and tend to be less statistically ambiguous. The trend for A-type tokens to show umlaut more than B-type tokens, B more than C, and C more than D, is robustly attested across the board except in three instances:

- 1) the Murbach Hymns, where B edges out A (but well within its error margin);
- 2) the Muspilli, where the pattern actually holds from A to D but with such wide error margins that we must take it with a grain of salt;
- 3) The Abrogans Pa, which anomalously offers no umlauting tokens of the C type.

Most texts umlaut to a relatively high degree in A (tokens in which the umlaut trigger occurs in the etymological root itself and not in any affix transparent to the native speaker), which serves as a guidepost for how to interpret umlaut in other morphological spaces; if the umlaut success rate is low, as in Abrogans Pa, this is a sign that phonology, and not necessarily analogy, is to blame for dearths of umlaut in other parts of the morphology. On the other hand, if umlaut in A is high, as in Otf rid, we should be more inclined to interpret, e.g., the absolute lack of umlaut in C3 (preterite optative of preterite-present verbs) as being at least partially phonologically based.

Certain sublevels of the B-type (trigger in a stem ending) that, like A, feature the trigger segment in all parts of their paradigm tend to pattern similarly to A in all texts. This includes the sublevels of B1 (ja(n)- and jō(n)-stem substantives) and B2 (feminine īn-stem nouns). Other parts of what I have classified as the B type did not perform as well; my thoughts about what to do with them are below in **6.3**.

The absence of any C-type primary umlaut in Abrogans Pa, out of 40 tokens, is a surprising finding. It makes sense, however, if we understand it as the effects of analogy taking the grammar in a different direction from other dialects (even though Muspilli, another Bavarian text, performs normally in the C type). My intention is to read so dramatic a difference in umlaut attestation between the C type and the A, B, and D types in this text as the result of various morphological levelings, some of which are very plausible, e.g., for verbs in Strong Classes 6 and 7 to level out the historical *a~e* alternation in the 2SG and 3SG present indicative:

sahhit ‘litigates’ (Pa 124e) ← *sakid

tragit ‘carries’ (Pa 131f) ← *dragid

This explanation may also suffice to explain certain comparative forms that do not show umlaut in this text, e.g.:

[h]artiro ‘harder’ (Pa 124b) ← WGmc *hard-ir-an-

altirom ‘parents’ (Pa 128f) ← *ald-ir-an-

kapazzirot ‘improved’ (Pa 127d) ← *-bat-ir-ōda-

pazzirota ‘improved’ (Pa 128f) ← *bat-ir-ōdā,

although two of these offer phonologically tricky clusters, *1C and *rC.

Another sublevel whose salient lack of umlaut in any text is C3, the preterite optative of heavy-stem (or analogically heavy-stem) Weak Class 1 verbs that have undergone syncope of the short *-i- of the stem which brings the tense-mood marker *-ī into the second syllable of the word, e.g. *z*elti* (instead of *zalti*) ‘might say’ ← *taldī. Although many of these tokens (such as *zalti* itself, e.g. Otfrid 4.1.34) feature a consonant cluster (e.g. *1C) that tends to disfavor umlaut, many do not, e.g.,

uungti ‘might waver’ (Otfrid 3.15.51) ← *wankidī

santi ‘might send’ (Otfrid 3.21.28) ← *sandidī

brantin ‘might burn’ (Otfrid 5.1.11) ← *brannidīn,

and the strong tendency against umlaut in this category cannot be attributed to phonological grounds alone. Rather, due probably to the many lexemes that are not good phonological umlaut candidates in this construction—cf. *zalti*, *gihartis* (4.13.18)—a better explanation is that the non-umlauted *a* was generalized everywhere for these verbs⁷⁰ (which is also reinforced by other syncopated parts of the preterite morphology, such as the indicative). “Whenever morphological conditioning of umlaut may have arisen, the phonetic shape of pret. subj. forms makes them a logical starting point for it” (Holsinger & Salmons 1999, p. 248).

⁷⁰ That is, in verbs with heavy present stems like *namn-id- ‘name’ or those that adapt to the heavy-stem preterite, like *zalt-* ← *tal-id- ‘tell.’ W1 verbs in *-r, like *nerien* ‘to heal,’ and instances of geminated-present verbs like *zellen* that retain their etymological light-stem preterites (*zelit-* instead of *zalt-*) regularly umlaut in this part of the morphology.

6.2 Limitations of This Study

A preliminary constraint on any project involving a corpus of historical data is our inability to know for sure what the orthographical evidence is supposed to convey. Firstly, even if we assume that every scribe were using the only writing system at their disposal to spell out their native dialect phoneme by phoneme, there is no guarantee that the sound they intended with a particular grapheme is the same as or even close to how we are inclined to read it today. This is complicated by the reality that the fronted and raised output of primary umlaut $e \leftarrow *a$ was not phonemically identical to short $*e$ inherited from Proto-Germanic. Thus we have occasional marking of unlauded e with something other than $\langle e \rangle$ itself:

$\langle \epsilon \rangle$ in *hęcgepugi* ‘crossway, sideway (DAT SG)’ (Abrogans K 265.14) $\leftarrow *aggja\text{-}bugi\text{-}$

$\langle \text{æ} \rangle$ in *irstæntit* ‘arises’ (Otfrid 1.15.34) $\leftarrow *\text{-standid}$

$\langle \text{ae} \rangle$ in *aengil* ‘angel’ (Isidor 51) $\leftarrow *angila\text{-}$

$\langle \text{ei} \rangle$ in *feiliso* ‘stones (GEN PL)’ (Abrogans K 75.2) $\leftarrow *falisa\text{-}$

These examples, especially $\langle \text{ae} \rangle$, considered alongside how sporadically they occur, do not inspire confidence that the OHG scribes felt comfortable writing $\langle e \rangle$ for the output of primary umlaut. If the fact that the writing of secondary umlaut did not become even semi-regular in the orthography until the Middle High German period can be attributed to the dearth of graphemes in the Latin inventory (cf. Twaddell 1938), any perceived inappropriateness of writing primary-umlaut e with the $\langle e \rangle$ grapheme must also be expected to have affected scribal attitudes towards using it for this new vowel.

And secondly, the assumption entertained above that the aim of the scribe was to represent the phonology of their own idiolect or local dialect as accurately as possible is obviously nonsense. Different scribal traditions focused on different aspects of copying

manuscripts, to the extent that a high degree of artificiality separates the “dialect” of a single manuscript from the dialects of the many native and non-native speakers whose transcription work went into their creation. Just as we inform all interpretations of phonology with morphological considerations, and vice versa, so must we inform both with orthographic considerations.

Besides this limitation to which any historical data is susceptible, the present study could have been more efficient in many aspects unique to it. One part of the methodology that gradually became problematic is the Boolean metric of whether or not a potential token exhibited the trigger in a West Germanic reconstruction, as laid out in **2.1.c**. Although this metric explicitly omitted WGmc forms ending with short *-i, most notably the nominative and accusative singular forms of i-stem nouns (since in most OHG, and all the corpus texts, even light stems like *stat* ← WGmc *stadi lose their final short vowel on analogy to heavy stems like *gast* ← *gasti, which lose it by a prosodically motivated rule), I did not do the same for heavy-stem Weak 1 verbs that had undergone syncope and therefore had no hope for umlaut. Otfrid V does offer the single syncopated token

*erdente*⁷¹ ‘extended’ (Otfrid 1.11.17) ← *þan-ida-.

However, instead of discovering any more of these, I ended opening up my dataset to many B5a- and B5b-type tokens such as

ginanto ‘named’ (Otfrid 1.4.2) ← WGmc *-namn-idu

zaltun ‘told’ (Otfrid 1.1.25)

⁷¹ Umlaut in this token can be explained in one of a variety of ways. But the likeliest explanation to me is that the *e* is merely orthographic, and this is a case where some scribe “corrected” *erdente* from either *erdenite* (preferring the heavy-stem variant) or *erdante* (borrowing the vocalism of the light-stem variant).

who theoretically could have been potential umlauters if they had not lost *-i- to syncope (or analogy) *before* the onset of umlaut. Triggerless tokens like these two do not convey the same meaningful phonological information about intervening consonants as do triggerless tokens like

ginennen ‘to name’ (Otfrid 1.1.12) ← *-namnjan

zellent ‘tell’ (Otfrid 1.8.26) ← *talljand

in which the trigger *j survived at least into the period of primary umlaut. I attempted to control for this in the phonological analysis of Otfrid in **3.2.2** by omitting all data without the orthographical trigger. This solved the issue of meaningless negatives by voiding the data of syncopated W1 preterites, but also omitted triggerless tokens whose triggers were *not* lost to syncope that provided useful phonological information, e.g.,

garauuemes ‘we prepare’ (Otfrid 2.3.55) ← WGmc *garwjam-.

6.3 Directions for Future Research

Using this shortcoming as an opportunity to segue into some suggestions for future studies, I would begin by isolating syncopated heavy-stem W1 forms as non-tokens from the beginning. Since the failure of umlaut in a form like

santun ‘sent’ (Otfrid 1.27.9) ← WGmc *sandidun

canamte ‘named’ (Abrogans K) ← WGmc *-namnida-

does not give us useful *phonological* information about the intervening consonants, even though the reconstructed WGmc form of each shows the trigger *-i-, these would-be tokens belong in the same group as, e.g., *stat* ← WGmc *stadi, and should not have a place in the analyses (except in some morphological evaluations, where the absence of umlaut in these tokens can be a strong influencer in leveling out umlaut in parallel forms that did not undergo syncope). This

would afford us a clearer view of how trigger loss (especially the loss of post-consonantal *j) slows down or speeds up the phonologization of umlaut.

Another profitable change to the methodology of this study would potentially be a reworking of the morphological “levels” of separation between trigger and target. The various sublevels of B and C follow from the historical morphology of German; but the higher-level groupings of B (stem trigger) and C (inflectional trigger) are not necessarily an ideal way to consolidate the sublevels. The B1 (ja(n)- and jō(n)-stems) and B2 (feminine īn-stems) types contain the trigger segment in every part of their paradigm, albeit in a distinct piece of morphology. The B5c subset (W1 verbs in *-r such as *nerien* ‘to heal’) likewise feature *no* part of their paradigm that syncopates or apocopates the umlauting *i or otherwise does not have it. Subsets like these really have more in common with the A-type than with other B-types, especially those like the B3 and B4 sublevels (umlaut triggered by stem ending of the i- and n-declension). Rather than these groupings A, B, C, and D—a distinction that has a theoretical basis but does not necessarily translate into real-world likelihood of umlaut—a more umlaut-focused set of groupings could help uncover stronger correlations. Braune (2004) lays the groundwork for something like this in §26 when he separates many (if not all) morphological origins of umlaut into “(a) In der Flexion mit *a* wechselnd” and “(b) Ohne Wechsel im Paradigma,” although not with a corpus study in mind. I envision a revised typology whose primary feature is presence of the trigger in the paradigm, similar to this but still more nuanced.

A step further with OHG umlaut research will necessarily compare the findings for particular dialects of German in the medieval period with information from handbooks on modern dialects. The utility of this is a two-way street. On the one hand, studies in OHG umlaut, controlling for dialect, can inform how we understand the development of the modern dialects.

German, even High German, is not a monolithic entity, and to find well-known dialectal idiosyncrasies attested in the medieval sources can improve our understanding of those dialects of today. On the other hand, the umlaut landscape in modern dialects (or the “rough edges” of any sound change) can also inform our understanding of the textual OHG, which is often fraught with uncertainty with regard to the competing influences of phonology, morphology, and orthography. The modern Bavarian dialect area, for instance, contains varieties that lack *a~e* alternation in the 2SG and 3SG present indicative (Zehetner 1970; Kranzmayer 1956)—so, *du tragst, er tragt*, etc.—which mirrors exactly what we find for the C2 sublevel in the Bavarian Abrogans MS (Pa). Many features of the 8th- and 9th-century manuscripts may appear to show a primitive or inchoate system of umlaut that in fact maps quite well onto regional varieties of German.

For this dissertation I created a corpus of sources that offered some diversity of text type. But there are plenty of other OHG materials, some dating earlier than these, in the form of *Verbrüderungsbücher*, monastic registers, where the names—frequently Germanic in origin—of new monks were recorded as they joined the order (e.g. Sonderegger 1961, for St. Gallen); the *Leges Barbarorum*, a Latin codification of Germanic laws, including such regional legal systems as the *Lex Alamannorum* (Law of the Alemanni), *Lex Salica* (Law of the Salian Franks), *Lex Saxonum* (Law of the Saxons), etc., which contain some loanwords from the vernacular West Germanic (accessible online at LegIT via Universität Bamberg); or even OHG writings that have been scratched into the page without ink (the so-called *Griffelglossen*), or written in secret scripts (the *Geheimschriften*). Even though most of these sources will not offer token counts with the necessary minimum for a standard error analysis as in the present corpus, each can contribute valuable knowledge on the earliest attested stages of primary umlaut.

Finally, any corpus study of umlaut in Old High German that goes beyond the scope of the present dissertation project ought to pay special attention to *secondary* umlaut. In 3.4 I presented a few tokens very suggestive of umlaut of *uo* → *üe* (to use a standardized MHG orthography) that I stumbled upon, such as

ni syah ih ‘I do not seek’ (Otfrid 3.18.19) ← *ni sōkiju ik

fuelen ‘feel (1PL)’ (Otfrid 5.23.103) ← WGmc *fōljam,

and plenty of others elsewhere in OHG have been identified previously, such as *diriuuarta* ‘door-guards’ ← *duri- in the OHG *Tatian* 186.4 (and see especially Gütter 2011). Clearly the assimilatory fronting of back vowels is happening before our eyes even during the OHG—at least in some areas—but in a way that the orthography will not catch up with for another few centuries. Further corpus work in OHG should provide comprehensive statistics on secondary umlaut in later OHG works such as Otfrid’s *Evangelienbuch* (particularly with an aim to explain the five *-ehC-* tokens given above) and the translations of Notker the German from more than a century later. Such a holistic perspective on OHG umlaut, fleshed out by more detailed analyses of non-primary umlaut in the OHG period, would also complement a general study on height and frontness harmony across Germanic, to compare and contrast how the distinct but related phenomena of i-mutation (and others) operated in North and West Germanic. Data from Old High German—in which we have unique snapshots from the middle of the diachronic processes of umlaut—are instrumental to any comparative study on how i-mutation operated in languages like Old English or Old Norse.

What the present dissertation has hopefully shown is that dialectal differences in the distribution of primary umlaut across phonological and morphological categories are clearly observable in all six texts belonging to the corpus. Not only do a handful of intervening

consonants and consonant clusters favor or disfavor umlaut across the corpus, but all of these texts show robust commonalities in how the morphological relationship between the trigger and target segments correspond to writing of umlaut. Phonology-based patterns notwithstanding, umlaut of *a to *e* was already in the Old High German period a morphological feature that could be extended to unexpected environments or withheld from expected environments in compliance with the intuitions of the native speaker.

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8 Appendix

Token	Text	Location	Umlaut	Consonant	Trigger	WGmc	Level	Type	Substantive Gender	Substantive Class	Substantive Case	Substantive Number	Verb Class	Verb Tense	Verb Mood	Verb Person	Verb Number
giredinot	Otf. V	1.1.7	+	þ	+	*raþinōda-	A	ppl					W2	past			
gizellen	Otf. V	1.1.12	+	lC	-	*talljan	B5b	inf					W1				
ginennen	Otf. V	1.1.12	+	mC	-	*namnjan	B5a	inf					W1				
drenkit	Otf. V	1.1.19	+	nC	+	*drankid	B5a	verb					W1	pres	IND	3	sg
lengi	Otf. V	1.1.22	+	nC	+	*langīn-	B2	noun	F	ī	A	sg					
bithenkit	Otf. V	1.1.23	+	nC	+	*þankida-	B5a	ppl					W1	past			
uuenkit	Otf. V	1.1.23	+	nC	+	*wankid	B5a	verb					W1	pres	IND	3	sg
allo	Otf. V	1.1.25	-	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
zaltun	Otf. V	1.1.25	-	lC	-	*tal(l)ida-	B5b	verb					W1	past	IND	3	pl
frenkisgon	Otf. V	1.1.34	+	nC	+	*frank-iska-	D7	adj	F	n	D	sg					
ginenne	Otf. V	1.1.39	+	mC	-	*namnjē	B5a	verb					W1	pres	OPT	3	sg
firstantnisse	Otf. V	1.1.40	-	nC	+	*stand- nissja-	D6	noun	N	ja/jō	D	sg					
frenkisgon	Otf. V	1.1.46	+	nC	+	*frank-iska-	D7	adj	F	n	D	sg					
girestes	Otf. V	1.1.50	+	sC	-	*rastjēs	B5a	verb					W1	pres	OPT	2	sg
zelitun	Otf. V	1.1.51	+	l	+	*talida-	B5b	verb					W1	past	IND	3	sg
edilzungun	Otf. V	1.1.53	+	þ	+	*aþil- tungan-	A	noun	F	n	D	sg					
dualtun	Otf. V	1.1.58	-	lC	-	*dwalid-	B5b	verb					W1	past	IND	3	pl
redinon	Otf. V	1.1.60	+	þ	+	*raþinōn	A	inf					W2				
grebit	Otf. V	1.1.69	+	b	+	*grabid	C2	verb					S6	pres	IND	3	sg
zirretinne	Otf. V	1.1.75	+	dC	+	*hraddjan	B5b	inf					W1				
mennisgon	Otf. V	1.1.79	+	sC	+	*mann-iska-	D7	adj	M	n	N	pl					

githreuuita	Otf. V	1.1.89	+	w	+	*prawid-	B5b	verb					W1	past	IND	3	sg
gistreuuita	Otf. V	1.1.89	+	w	+	*strawid-	B5b	verb					W1	past	IND	3	sg
herten	Otf. V	1.1.90	+	rC	-	*hardja-	B1a	adj	N	jan/jōn	G	pl					
redinu	Otf. V	1.1.91	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
edilthegan	Otf. V	1.1.99	+	þ	+	*aþil- þegana-	A	noun	M	a/ō	N	sg					
uueltit	Otf. V	1.1.101	+	IC	+	*waldid	C2	verb					S7	pres	IND	3	sg
derien	Otf. V	1.1.103	+	r	+	*darjēn	B5c	verb					W1	pres	OPT	3	pl
uuerien	Otf. V	1.1.104	+	r	+	*warjēn	B5c	verb					W1	pres	OPT	3	pl
thenkent	Otf. V	1.1.105	+	nC	-	*bankjand	B5a	verb					W1	pres	IND	3	pl
zellen	Otf. V	1.1.108	+	IC	-	*talljēn	B5b	verb					W1	pres	OPT	3	pl
redina	Otf. V	1.1.111	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
frenkisga	Otf. V	1.1.114	+	nC	+	*frank-iska-	D7	adj	F	a/ō	A	sg					
frenkisga	Otf. V	1.1.122	+	nC	+	*frank-iska-	D7	adj	F	a/ō	A	sg					
freuuen	Otf. V	1.1.123	+	wC	-	*frawwjēn	B5b	verb					W1	pres	OPT	3	pl
frenkisgon	Otf. V	1.1.126	+	nC	+	*frank-iska-	D7	adj	F	n	D	pl					
redinon	Otf. V	1.2.7	+	þ	+	*raþinōn	A	inf					W2				
zellu	Otf. V	1.2.21	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zell	Otf. V	1.2.23	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
krefiti	Otf. V	1.2.26	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
gisceifti	Otf. V	1.2.26	+	fC	+	*skafti-	B3	verb	F	i	G	sg					
derre	Otf. V	1.2.30	+	rC	+	*darrjē	B5b	verb					W1	pres	OPT	3	sg
gimerre	Otf. V	1.2.30	+	rC	+	*marrjē	B5a	verb					W1	pres	OPT	3	sg
uueltis	Otf. V	1.2.34	+	IC	+	*waldis	C2	verb					S7	pres	IND	2	sg
giuuelti	Otf. V	1.2.35	+	IC	+	*waldi-	B3	noun	F	i	D	sg					
menigi	Otf. V	1.2.39	+	n	+	*manigīn-	A	noun	F	ī	G	sg					
freuwe	Otf. V	1.2.44	+	wC	-	*frawwjē	B5b	verb					W1	pres	OPT	1	sg
engilon	Otf. V	1.2.45	+	nC	+	*angila-	A	noun	M	a/ō	D	pl					
krefiti	Otf. V	1.2.47	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
giscefti	Otf. V	1.2.47	+	fC	+	*skafti-	B3	noun	F	i	D	sg					
megi	Otf. V	1.2.55	+	g	+	*magī	C4a	verb					PP	pres	OPT	1	sg

ellu	Otf. V	1.2.56	+	IC	-	*all-iu	C6	adj	N	a/ō	A	pl					
zellent	Otf. V	1.3.2	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
zellent	Otf. V	1.3.3	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
enterin	Otf. V	1.3.7	+	nC	-	*andi-	B1a	noun	N	ja/jō	D	pl					
zellent	Otf. V	1.3.16	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
gizelle	Otf. V	1.3.21	+	IC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
edil	Otf. V	1.3.24	+	þ	+	*apilja-	A	noun	N	ja/jō	N	sg					
entont	Otf. V	1.3.25	+	nC	-	*andjōnd	B1a	verb					W2	pres	IND	3	pl
edilthegana	Otf. V	1.3.26	+	þ	+	*apil begana-	A	noun	M	a/ō	N	pl					
zellu	Otf. V	1.3.30	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
engilo	Otf. V	1.3.32	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
menigi	Otf. V	1.3.32	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
anagenge	Otf. V	1.3.35	+	nC	-	*gangi-	B3	noun	M	i	D	sg					
zeli	Otf. V	1.3.36	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg
mannilih	Otf. V	1.23.8	-	nC	+	*mann-lika-	D3	adverb									
mennisgon	Otf. V	1.3.44	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
gizellen	Otf. V	1.3.45	+	IC	-	*talljan	B1b	inf					W1				
frenkisgen	Otf. V	1.3.46	+	nC	+	*frank-iska-	D7	adj	N	a/ō	D	pl					
ginanto	Otf. V	1.4.2	-	mC	-	*namnida-	B5a	ppl					W1	past			
elti	Otf. V	1.4.10	+	IC	+	*aldīn-	B2	noun	F	ī	A	sg					
heriscaf	Otf. V	1.4.15	+	r	+	*hari-	B1c	noun	F	i	N	sg					
henti	Otf. V	1.4.16	+	nC	+	*handi-	B3	noun	F	i	A	pl					
heffen	Otf. V	1.4.16	+	bC	+	*habbjān	B6	inf					S6				
henti	Otf. V	1.4.20	+	nC	+	*handi-	B3	noun	F	i	D	sg					
engil	Otf. V	1.4.26	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
terru	Otf. V	1.4.27	+	rC	-	*tarrju	B5b	verb					W1	pres	IND	1	sg
mendenti	Otf. V	1.4.32	+	nC	-	*manþjand-	B5a	ppl					W1	pres			
henti	Otf. V	1.4.38	+	nC	+	*handi-	B3	noun	F	i	D	sg					
gigaraue	Otf. V	1.4.45	-	rC	-	*garwjē	B5a	verb					W1	pres	OPT	3	sg
meg ih	Otf. V	1.4.55	+	g	+	*mag-ik	E	verb					PP	pres	IND	1	sg

elti	Otf. V	1.4.56	+	IC	+	*aldīn-	B2	noun	F	ī	D	sg					
enti	Otf. V	1.4.56	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
sentit	Otf. V	1.4.61	+	nC	+	*sandid	B5a	verb					W1	pres	IND	3	sg
hebigu	Otf. V	1.4.62	+	b	+	*habīga-	D2	adj	N	a/ō	A	pl					
sant	Otf. V	1.4.63	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
gisazza	Otf. V	1.4.69	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
antfangi	Otf. V	1.4.73	-	nC	+	*fangi-	B3	noun	M	i	A	pl					
henti	Otf. V	1.4.74	+	nC	+	*handi-	B3	noun	F	i	D	sg					
bilemit	Otf. V	1.4.76	+	m	+	*lamida-	B5b	ppl					W1	past			
menigi	Otf. V	1.4.78	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
entonti	Otf. V	1.4.81	+	nC	-	*andjōnd-	B1a	ppl					W2	pres			
freuuenti	Otf. V	1.4.83	+	wC	-	*frawwjand-	B5b	ppl					W1	pres			
elti	Otf. V	1.4.86	+	IC	+	*aldīn-	B2	noun	F	ī	D	sg					
engil	Otf. V	1.5.3	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
ediles	Otf. V	1.5.7	+	þ	+	*apilja-	A	noun	N	ja/jō	G	sg					
palinza	Otf. V	1.5.9	-	l	+	*palintō-	A	noun	F	a/ō	A	sg					
henti	Otf. V	1.5.10	+	nC	+	*handi-	B3	noun	F	i	D	sg					
enti	Otf. V	1.5.10	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
uuenti	Otf. V	1.5.18	+	nC	+	*wandī	B5a	verb					W1	pres	IMP	2	sg
ensti	Otf. V	1.5.18	+	nC	+	*ansti-	B3	noun	F	i	G	sg					
scepheri	Otf. V	1.5.25	+	pC	-	*skappjārja-	B6	noun	M	ja/jō	N	sg					
henti	Otf. V	1.5.30	+	nC	+	*handi-	B3	noun	F	i	D	sg					
enti	Otf. V	1.5.30	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
insperre	Otf. V	1.5.32	+	rC	-	*sparrjē	B5a	verb					W1	pres	OPT	3	sg
meg io	Otf. V	1.5.37	+	g	+	*mag-iz	E	verb					PP	pres	IND	3	sg
ginerie	Otf. V	1.5.54	+	r	+	*narjē	B5c	verb					W1	pres	OPT	3	sg
fremidi	Otf. V	1.5.56	+	m	+	*framipja-	A	adj	N	ja/jō	A	sg					
ketinu	Otf. V	1.5.58	+	t	+	*katinō-	A	noun	F	a/ō	D	sg					
zerbe	Otf. V	1.5.65	+	rC	-	*arbja-	B1a	noun	N	ja/jō	D	sg					
garauuu	Otf. V	1.5.70	-	rC	-	*garwja-	B1a	adj	F	ja/jō	N	sg					
engil	Otf. V	1.5.71	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					

allo	Otf. V	1.6.13	-	IC	-	*all- <i>iu</i>	C6	adj	F	a/ō	N	sg					
freuu	Otf. V	1.7.6	+	wC	-	*frawwju	B5b	verb					W1	pres	IND	1	sg
anagenge	Otf. V	1.7.11	+	nC	-	*gangi-	B3	noun	M	i	D	sg					
erkenne	Otf. V	1.7.12	+	nC	-	*kannjē	B5a	verb					W1	pres	OPT	3	sg
giuuelti	Otf. V	1.7.13	+	IC	+	*wal <i>di</i> -	B3	noun	F	i	D	sg					
henti	Otf. V	1.7.13	+	nC	+	*handi-	B3	noun	F	i	G	sg					
henti	Otf. V	1.7.22	+	nC	+	*handi-	B3	noun	F	i	D	sg					
selidon	Otf. V	1.7.24	+	l	+	*salijō-	D1	noun	F	a/ō	D	pl					
engil	Otf. V	1.8.19	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
wehsit	Otf. V	1.8.24	+	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
zellent	Otf. V	1.8.26	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
giuuahinit	Otf. V	1.9.1	-	hC	+	*wahnida-	B5a	ppl					W1	past			
freuuenti	Otf. V	1.9.4	+	wC	-	*frawwjand-	B5b	ppl					W1	pres			
scaftin	Otf. V	1.9.8	-	pC	+	*skapidīn	C3	verb					W1	past	OPT	3	pl
ediling	Otf. V	1.9.9	+	þ	+	*apilinga-	A	noun	M	a/ō	N	sg					
nanti	Otf. V	1.9.10	-	mC	+	*namnidī	C3	ppl					W1	past	OPT	3	sg
elti	Otf. V	1.9.11	+	IC	+	*aldīn-	B2	noun	F	ī	D	sg					
namiti	Otf. V	1.9.14	-	m	+	*namidīn?	A	noun	F	ī	D	sg					
zel	Otf. V	1.9.21	+	l	-	*talī	B5b	verb					W1	pres	IMP	2	sg
menigi	Otf. V	1.9.27	+	n	+	*manigīn-	A	verb	F	ī	N	sg					
gibenti	Otf. V	1.9.30	+	nC	+	*bandja-	B1a	noun	N	ja/jō	N	sg					
henti	Otf. V	1.9.40	+	nC	+	*handi-	B3	noun	F	i	D	sg					
zaltun	Otf. V	1.10.2	-	l	-	*talid-	B5b	ppl					W1	past			
iruunte	Otf. V	1.10.22	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg
gibenti	Otf. V	1.10.22	+	nC	+	*bandja-	B1a	noun	N	ja/jō	D	sg					
sant	Otf. V	1.11.3	-	nC	-	*sandid-	B5b	verb					W1	past	IND	3	sg
zaltin	Otf. V	1.11.5	-	IC	+	*talidīn	B5b	verb					W1	past	OPT	3	pl
nirdualtin	Otf. V	1.11.5	-	IC	+	*dwalidīn	B5b	verb					W1	past	OPT	3	pl
gizalter	Otf. V	1.11.9	-	IC	-	*talida-	B5b	ppl					W1	past			
uuenke	Otf. V	1.11.13	+	nC	-	*wankjē	B5a	verb					W1	pres	OPT	3	sg
githenke	Otf. V	1.11.13	+	nC	-	*þankjē	B5a	verb					W1	pres	OPT	3	sg

ellu	Otf. V	1.11.15	+	lC	-	*all- <i>iu</i>	C6	adj	N	a/ō	N	pl					
uorolenti	Otf. V	1.11.15	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	pl					
henti	Otf. V	1.11.15	+	nC	+	*handi-	B3	noun	F	i	D	sg					
erdente	Otf. V	1.11.17	+	nC	-	*pan(n)ida-	B5b	ppl					W1	past			
biuente	Otf. V	1.11.17	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg
henti	Otf. V	1.11.18	+	nC	+	*handi-	B3	noun	F	i	D	sg					
uantin	Otf. V	1.11.21	-	nC	+	*wandidīn	C3	verb					W1	past	OPT	3	pl
uesti	Otf. V	1.11.22	+	sC	+	*fastīn-	B2	noun	F	ī	A	sg					
ginante	Otf. V	1.11.23	-	mC	-	*namnida-	B5a	ppl					W1	past			
uuenti	Otf. V	1.11.24	+	nC	+	*wandja-	B1a	noun	N	ja/jō	N	sg					
edilingo	Otf. V	1.11.24	+	þ	+	*apilinga-	A	noun	M	a/ō	G	pl					
henti	Otf. V	1.11.24	+	nC	+	*handi-	B3	noun	F	i	D	sg					
steti	Otf. V	1.11.25	+	d	+	*stadi-	B3	noun	F	i	D	sg					
gizalte	Otf. V	1.11.28	-	l	-	*talida-	B5b	ppl					W1	past			
gilegiti	Otf. V	1.11.33	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
legita	Otf. V	1.11.36	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
quatta	Otf. V	1.11.40	-	dC	-	*kwad(d)id-	B5b	verb					W1	past	IND	3	sg
emmizigen	Otf. V	1.11.40	+	m	+	*amitīga-	A	adverb									
thagta	Otf. V	1.11.40	-	kC	-	*pak(k)id-	B5b	verb					W1	past	IND	3	sg
sazta	Otf. V	1.11.41	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
insuebita	Otf. V	1.11.42	+	b	+	*swabid-	B5b	verb					W1	past	IND	3	sg
gilegita	Otf. V	1.11.42	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
bette	Otf. V	1.11.44	+	dC	-	*baddja-	B1b	noun	N	ja/jō	D	sg					
uuerita	Otf. V	1.11.45	+	r	+	*warid-	B5c	verb					W1	past	IND	3	sg
derita	Otf. V	1.11.45	+	r	+	*derid-	B5c	verb					W1	past	IND	3	sg
henti	Otf. V	1.11.46	+	nC	+	*handi-	B3	noun	F	i	A	sg					
helsenti	Otf. V	1.11.46	+	lC	-	*halsjand-	B5a	ppl					W1	pres			
erzelle	Otf. V	1.11.48	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
zalta	Otf. V	1.11.55	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
legita	Otf. V	1.11.57	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
nerita	Otf. V	1.11.57	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg

gibentin	Otf. V	1.11.61	+	nC	+	*bandja-	B1a	noun	N	ja/jō	D	pl						
hentin	Otf. V	1.11.61	+	nC	+	*handi-	B3	noun	F	i	D	pl						
engil	Otf. V	1.12.3	+	nC	+	*angila-	A	noun	M	a/ō	N	sg						
gilegitaz	Otf. V	1.12.20	+	g	+	*lagida-	B5b	ppl					W1	past				
engilo	Otf. V	1.12.21	+	nC	+	*angila-	A	noun	M	a/ō	G	pl						
heriscaf	Otf. V	1.12.21	+	r	+	*hari-	B1c	noun	F	i	N	sg						
menigi	Otf. V	1.12.22	+	n	+	*manigīn-	A	noun	F	ī	N	sg						
engila	Otf. V	1.12.30	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
engila	Otf. V	1.12.33	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
engiles	Otf. V	1.13.2	+	nC	+	*angila-	A	noun	M	a/ō	G	sg						
sazta	Otf. V	1.13.10	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg	
bezista	Otf. V	1.13.10	+	t	+	*batista-	C5	adj	N	n	N	sg						
irkantun	Otf. V	1.13.13	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	pl	
engila	Otf. V	1.13.14	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
festi	Otf. V	1.13.17	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg						
irkantun	Otf. V	1.13.23	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	pl	
engila	Otf. V	1.13.23	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
gizaltun	Otf. V	1.13.23	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl	
engil	Otf. V	1.14.5	+	nC	+	*angila-	A	noun	M	a/ō	N	sg						
gizalta	Otf. V	1.14.5	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg	
engil	Otf. V	1.14.8	+	nC	+	*angila-	A	noun	M	a/ō	N	sg						
emmizigen	Otf. V	1.14.10	+	m	+	*amitīga-	A	adverb										
gizalta	Otf. V	1.14.17	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg	
uueritun	Otf. V	1.14.18	+	r	+	*warid-	B5c	verb					W1	past	IND	3	pl	
gizalter	Otf. V	1.15.1	-	lC	-	*tal(l)ida-	B5b	ppl					W1	past				
henti	Otf. V	1.15.6	+	nC	+	*handi-	B3	noun	F	i	D	sg						
enti	Otf. V	1.15.6	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg						
emmizigon	Otf. V	1.15.10	+	m	+	*amitīga-	A	adverb										
ginanto	Otf. V	1.15.25	-	mC	-	*namnida-	B5a	ppl					W1	past				
irstantnisse	Otf. V	1.15.30	-	nC	+	*stand-nissja-	D6	noun	N	ja/jō	D	sg						

hebigaz	Otf. V	1.15.31	+	b	+	*habīga-	D2	adj	N	a/ō	A	sg					
anauentit	Otf. V	1.15.34	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg
irstəntit	Otf. V	1.15.34	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
ferit	Otf. V	1.15.35	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
giuuelti	Otf. V	1.15.37	+	IC	+	*waldi-	B3	noun	F	i	D	sg					
enti	Otf. V	1.15.37	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
engilo	Otf. V	1.15.39	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
menigi	Otf. V	1.15.39	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
hebigaz	Otf. V	1.15.40	+	b	+	*habīga-	D2	adj	N	a/ō	A	sg					
forasagin	Otf. V	1.16.3	-	g	+	*saginjō-	D8	noun	F	ja/jō	N	sg					
zalta	Otf. V	1.16.15	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
gizaltun	Otf. V	1.16.21	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
henti	Otf. V	1.16.28	+	nC	+	*handi-	B3	noun	F	i	D	sg					
giuuelti	Otf. V	1.16.28	+	IC	+	*waldi-	B3	noun	F	i	D	sg					
irdualta	Otf. V	1.17.3	-	IC	-	*dwal(l)id-	B5b	verb					W1	past	IND	1	sg
gizalta	Otf. V	1.17.3	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
irzellen	Otf. V	1.17.4	+	IC	-	*talljan	B5b	inf					W1				
henti	Otf. V	1.17.8	+	nC	+	*handi-	B3	noun	F	i	D	sg					
enti	Otf. V	1.17.8	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
irkantun	Otf. V	1.17.9	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	pl
zaltun	Otf. V	1.17.15	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
hebigaz	Otf. V	1.17.16	+	b	+	*habīga-	D2	adj	N	a/ō	A	sg					
zaltun	Otf. V	1.17.25	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	pl
gizellet	Otf. V	1.17.28	+	IC	-	*talljēd	B5b	verb					W1	pres	OPT	2	pl
nantun	Otf. V	1.17.37	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	pl
festiz	Otf. V	1.17.37	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg					
zaltun	Otf. V	1.17.38	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
festi	Otf. V	1.17.40	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg					
giuudara- liho	Otf. V	1.17.47	-	rC	+	*war-lika-	D3	adverb									
irthuesben	Otf. V	1.17.52	+	sC	-	*pwasbjan	B5a	inf					W1				

irlesgen	Otf. V	1.17.52	+	sC	-	*laskjan	B5a	inf					W1					
ferti	Otf. V	1.17.53	+	rC	+	*fardi-	B3	noun	F	i	G	sg						
ferti	Otf. V	1.17.58	+	rC	+	*fardi-	B3	noun	F	i	D	sg						
engilon	Otf. V	1.17.73	+	nC	+	*angila-	A	noun	M	a/ō	D	pl						
zelitun	Otf. V	1.17.74	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl	
meg iz	Otf. V	1.18.4	+	g	+	*mag-ik	E	verb					PP	pres	IND	1	sg	
megi	Otf. V	1.18.5	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg	
ente	Otf. V	1.18.6	+	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg						
yrzellen	Otf. V	1.18.8	+	lC	-	*talljan	B5b	inf					W1					
engilichaz	Otf. V	1.18.10	+	nC	+	*angila-	A	adj	N	a/ō	N	sg						
emmizigen	Otf. V	1.18.12	+	m	+	*amitīga-	A	adverb										
uuegen	Otf. V	1.18.15	+	gC	-	*waggiēm	B5b	verb					W1	past	OPT	1	pl	
elilente	Otf. V	1.18.16	+	l	+	*ali-	B3	noun	M	ja/jō	N	pl						
elilente	Otf. V	1.18.16	+	nC	-	*landja-	B1a	noun	M	ja/jō	N	pl						
fremidemo	Otf. V	1.18.16	+	m	+	*framipja-	A	adj	N	ja/jō	D	sg						
umbitherbi	Otf. V	1.18.17	+	rC	+	*parbīn-	B2	noun	F	ī	N	sg						
adalerbi	Otf. V	1.18.17	+	rC	+	*arbja-	B1a	noun	N	ja/jō	N	sg						
elilenti	Otf. V	1.18.25	+	l	+	*ali-	B3	noun	M	ja/jō	N	sg						
elilenti	Otf. V	1.18.25	+	nC	+	*landja-	B5a	noun	M	ja/jō	N	sg						
herti	Otf. V	1.18.25	+	rC	+	*hardja-	B1a	adj	M	ja/jō	N	sg						
uueente	Otf. V	1.18.34	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg	
henti	Otf. V	1.18.42	+	nC	+	*handi-	B3	noun	F	i	A	pl						
engil	Otf. V	1.19.3	+	nC	+	*angila-	A	noun	M	a/ō	N	sg						
heffen	Otf. V	1.19.3	+	bC	-	*habbjān	B6	inf					S6					
ferti	Otf. V	1.19.13	+	rC	+	*fardi-	B3	noun	F	i	G	sg						
dualta	Otf. V	1.19.17	-	lC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg	
zalta	Otf. V	1.19.17	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg	
festi	Otf. V	1.19.27	+	sC	+	*fastīn-	B2	noun	F	ī	N	sg						
zelit	Otf. V	1.19.28	+	l	+	*talid	B5b	verb					W1	pres	IND	3	sg	
santa	Otf. V	1.20.3	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg	
garauue	Otf. V	1.20.3	-	rC	-	*garwja-	B1a	adj	M	ja/jō	A	pl						

geuimez	Otf. V	1.20.8	+	w	-	*gawja-	B1b	noun	N	a/ō	N	sg					
lengi	Otf. V	1.20.10	+	nC	+	*langīn-	B2	noun	F	ī	D	sg					
gizengi	Otf. V	1.20.10	+	nC	+	*tangja-	B1a	adj	N	ja/jō	N	sg					
nem iz	Otf. V	1.20.18	+	m	+	*nam-it	E	verb					S4	past	IND	3	sg
zaltaz	Otf. V	1.20.26	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
qualtin	Otf. V	1.20.29	-	IC	+	*kwalidīn	C2	verb					W1	past	OPT	3	pl
elilente	Otf. V	1.21.3	+	l	+	*ali-	B3	noun	N	ja/jō	D	sg					
elilente	Otf. V	1.21.3	+	nC	-	*landja-	B1a	noun	N	ja/jō	D	sg					
irzellen	Otf. V	1.22.3	+	IC	-	*talljan	B5b	inf					W1				
gientotun	Otf. V	1.22.7	+	nC	-	*andja-	B1a	verb					W2	past	IND	3	pl
gidualta	Otf. V	1.22.9	-	IC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
unredinu	Otf. V	1.22.17	+	β	+	*raβinō-	A	noun	F	a/ō	D	sg					
gatingon	Otf. V	1.22.21	-	d	+	*gadilinga-	A	noun	M	a/ō	D	pl					
hebig	Otf. V	1.22.28	+	b	+	*habīga-	D2	adj	N	a/ō	N	sg					
henti	Otf. V	1.22.44	+	nC	+	*handi-	B3	noun	F	i	D	sg					
gidualtos	Otf. V	1.22.45	-	IC	-	*dwal(l)id-	B5b	verb					w1	past	IND	2	sg
irfaltos	Otf. V	1.22.45	-	IC	-	*fallid-	B5a	verb					W1	past	IND	2	sg
hebigaz	Otf. V	1.22.53	+	b	+	*habīga-	D2	adj	N	a/ō	N	sg					
erbe	Otf. V	1.22.54	+	rC	-	*arbja-	B1a	noun	N	ja/jō	A	sg					
uuahsmen	Otf. V	1.22.62	-	hC	-	*wahsmin-	B4	noun	M	n	D	sg					
ellu	Otf. V	1.23.1	+	IC	-	*all-iu	C6	adj	F	a/ō	N	sg					
mannilih	Otf. V	1.23.8	-	nC	+	*mann-lika-	D3	adverb									
uuuast- uueldi	Otf. V	1.23.9	+	IC	+	*waldja-	B1a	noun	N	ja/jō	A	sg					
mannolih	Otf. V	1.23.12	-	nC	+	*mann-lika-	D3	adverb									
gigarotin	Otf. V	1.23.13	-	rC	+	*garwidīn	C3	verb					W1	past	OPT	3	pl
elliu	Otf. V	1.23.14	+	IC	+	*all-iu	C6	adj	F	a/ō	N	sg					
gizaltan	Otf. V	1.23.17	-	IC	-	*tal(l)ida-	B5b	ppl					W1	past			
heristraza	Otf. V	1.23.22	+	r	+	*hari-	B1c	noun	F	a/ō	A	sg					
ellu	Otf. V	1.23.32	+	IC	-	*all-iu	C6	adj	F	a/ō	N	sg					
redinu	Otf. V	1.23.33	+	β	+	*raβinō-	A	noun	F	a/ō	D	sg					

rafsta	Otf. V	1.23.34	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
kraftlich	Otf. V	1.23.34	-	fC	+	*kraft-līka-	D3	adverb									
hebigen	Otf. V	1.23.36	+	b	+	*habīga-	D2	adj	N	a/ō	D	pl					
megit	Otf. V	1.23.41	+	g	+	*magīd	C4a	verb					PP	pres	OPT	2	pl
egislichun	Otf. V	1.23.42	+	g	+	*agis-līka-	A	adj	F	n	A	sg					
ediling	Otf. V	1.23.45	+	þ	+	*aþilinga-	A	noun	M	a/ō	N	sg					
felisa	Otf. V	1.23.47	+	l	+	*falīsō-	A	noun	F	a/ō	A	sg					
giuuezzit	Otf. V	1.23.51	+	tC	+	*hwat(t)ida-	B5b	ppl					W1	past			
gisezzit	Otf. V	1.23.51	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
suenta	Otf. V	1.23.54	+	nC	-	*swandjē	B5a	verb					W1	pres	OPT	3	sg
anauente	Otf. V	1.23.54	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg
mannilih	Otf. V	1.23.55	-	nC	+	*mann-līka-	D3	adverb									
mannilih	Otf. V	1.23.59	-	nC	+	*mann-līka-	D3	adverb									
brenne	Otf. V	1.23.61	+	nC	-	*brannjē	B5a	verb					W1	pres	OPT	3	sg
egislichen	Otf. V	1.24.2	+	g	+	*agis-līka-	A	adj	M	n	D	sg					
gizelle	Otf. V	1.24.4	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	1	sg
uuenken	Otf. V	1.24.16	+	nC	-	*wankjan	B5a	inf					W1				
bithenken	Otf. V	1.24.16	+	nC	-	*þankjand	B5a	inf					W1				
henti	Otf. V	1.25.6	+	nC	+	*handi-	B3	noun	F	i	N	pl					
meg ih	Otf. V	1.25.8	+	g	+	*mag-ik	E	verb					PP	pres	IND	1	sg
zalt	Otf. V	1.25.16	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
allu	Otf. V	1.26.10	-	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
kreftigun	Otf. V	1.27.4	+	fC	+	*kraftīga-	D2	adj	F	n	G	sg					
hebiger	Otf. V	1.27.5	+	b	+	*habīga-	D2	adj	M	a/ō	N	sg					
santun	Otf. V	1.27.9	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	pl
ferti	Otf. V	1.27.13	+	rC	+	*fardi-	B3	noun	F	i	G	sg					
duellen	Otf. V	1.27.16	+	lC	-	*dwalljēm	B5b	verb					W1	pres	OPT	1	pl
merren	Otf. V	1.27.16	+	rC	-	*marrjēm	B5a	verb					W1	pres	OPT	1	pl
gizelle	Otf. V	1.27.20	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	1	sg
gizeli	Otf. V	1.27.24	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg
irkanta	Otf. V	1.27.25	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg

ginanta	Otf. V	1.27.25	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg
zaltut	Otf. V	1.27.27	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	2	pl
zaltun	Otf. V	1.27.30	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
felgu	Otf. V	1.27.34	+	lC	-	*falgiu	B5a	verb					W1	pres	IND	1	sg
gizaltin	Otf. V	1.27.38	-	lC	+	*talidīm	C3	verb					W1	past	OPT	1	pl
santin	Otf. V	1.27.38	-	nC	+	*sandidīn	C3	verb					W1	past	OPT	3	pl
baldlicho	Otf. V	1.27.40	-	lC	+	*bald-līka-	D3	adverb									
feristu	Otf. V	1.27.45	+	r	+	*faris	C2	verb					S6	pres	IND	2	sg
gizalti	Otf. V	1.27.54	-	lC	+	*tal(i)dī	C3	verb					W1	past	OPT	1	sg
allo	Otf. V	1.27.55	-	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
megi	Otf. V	1.27.57	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
inklenke	Otf. V	1.27.60	+	nC	-	*klangjē	B5a	verb					W1	pres	OPT	1	sg
gischrenke	Otf. V	1.27.60	+	nC	-	*skrankjē	B5a	verb					W1	pres	OPT	3	sg
denni	Otf. V	1.27.65	+	nC	-	*dannjō-	B1b	noun	F	ja/jō	A	sg					
gikerre	Otf. V	1.27.65	+	rC	-	*karrjē	B5b	verb					W1	pres	OPT	3	sg
uuerre	Otf. V	1.27.65	+	rC	-	*warrjē	B5b	verb					W1	pres	OPT	3	sg
gabissa	Otf. V	1.27.66	-	b	+	*gabisjō-?	A	noun	F	ja/jō	A	sg					
firbrenne	Otf. V	1.27.68	+	nC	-	*brannjē	B5a	verb					W1	pres	OPT	3	sg
kreftin	Otf. V	1.28.1	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
giuuelti	Otf. V	1.28.6	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
enti	Otf. V	1.28.6	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
uorolt- kreftin	Otf. V	2.1.1	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
engilo	Otf. V	2.1.1	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
gisceftin	Otf. V	2.1.1	+	fC	+	*skafti-	B3	noun	F	i	D	pl					
herti	Otf. V	2.1.3	+	rC	+	*hardja-	B1a	adj	F	ja/jō	N	sg					
ellu	Otf. V	2.1.4	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
giscefti	Otf. V	2.1.7	+	fC	+	*skafti-	B3	noun	F	i	G	sg					
uues iz	Otf. V	2.1.8	+	s	+	*was-it	E	verb					S5	past	IND	3	sg
enti	Otf. V	2.1.11	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
emmizigen	Otf. V	2.1.17	+	m	+	*amitūga-	A	adverb									

zarpta	Otf. V	2.1.21	-	rC	-	*tarbid-	B5a	verb					W1	past	IND	3	sg
uuarpta	Otf. V	2.1.21	-	rC	-	*hwarbid-	B5a	verb					W1	past	IND	3	sg
engilon	Otf. V	2.1.26	+	nC	+	*angila-	A	noun	M	a/ō	D	pl					
mennisgon	Otf. V	2.1.30	+	nC	+	*mann-iska-	D7	adj	M	n	A	pl					
santa	Otf. V	2.2.1	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
rafsta	Otf. V	2.2.4	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
santun	Otf. V	2.2.5	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
gizalta	Otf. V	2.2.8	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
mannilih	Otf. V	2.2.9	-	nC	+	*mann-līka-	D3	adverb									
mennisgon	Otf. V	2.2.14	+	nC	+	*mann-iska-	D7	adj	M	n	A	pl					
zellu	Otf. V	2.2.16	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
nirkanta	Otf. V	2.2.20	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg
erbi	Otf. V	2.2.22	+	rC	+	*arbja-	B1a	noun	N	ja/jō	A	sg					
umbitherbi	Otf. V	2.2.22	+	rC	+	*parbja-	B1a	adj	N	ja/jō	N	sg					
redinon	Otf. V	2.2.23	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
giuuanti	Otf. V	2.2.25	-	nC	+	*wand(i)dī	C3	verb					W1	past	OPT	3	sg
irkanti	Otf. V	2.2.25	-	nC	+	*kann(i)dī	C3	verb					W1	past	OPT	3	sg
irkantun	Otf. V	2.2.27	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	pl
ensti	Otf. V	2.2.37	+	nC	+	*ansti-	B3	noun	F	i	D	sg					
festi	Otf. V	2.3.2	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg					
bithenken	Otf. V	2.3.5	+	nC	-	*þankjēm	B5a	verb					W1	pres	OPT	1	pl
engil	Otf. V	2.3.12	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
heriskaf	Otf. V	2.3.13	+	r	+	*hari-	B1c	noun	N	i	N	sg					
engilo	Otf. V	2.3.14	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
menigi	Otf. V	2.3.14	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
dualta	Otf. V	2.3.16	-	lC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
engil	Otf. V	2.3.16	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
gizalta	Otf. V	2.3.16	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
thenita	Otf. V	2.3.38	+	n	+	*þanid-	B5b	verb					W1	past	IND	3	sg
ellu	Otf. V	2.3.43	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
sankta	Otf. V	2.3.54	-	nC	-	*sankid-	B5a	verb					W1	past	IND	3	sg

irdrangta	Otf. V	2.3.54	-	nC	-	*þrangid-	B5a	verb					W1	past	IND	3	sg
garauemes	Otf. V	2.3.55	-	rC	-	*garwjem	B5a	verb					W1	pres	OPT	1	pl
giredinot	Otf. V	2.3.57	+	þ	+	*raþinōda-	A	ppl					W2	past			
iruunte	Otf. V	2.3.64	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg
biuuenke	Otf. V	2.3.66	+	nC	-	*wankjē	B5a	verb					W1	pres	OPT	3	sg
firsenske	Otf. V	2.3.66	+	nC	-	*sankjē	B5a	verb					W1	pres	OPT	3	sg
steti	Otf. V	2.4.2	+	d	+	*stadi-	B3	noun	F	i	A	pl					
bisperrit	Otf. V	2.4.8	+	rC	+	*sparrida-	B5a	ppl					W1	past			
spenstin	Otf. V	2.4.12	+	nC	+	*spansti-	B3	noun	F	i	D	pl					
sand	Otf. V	2.4.16	-	nC	-	*sandida-	B5a	ppl					W1	past			
uuerita	Otf. V	2.4.31	+	r	+	*warid-	B5c	verb					W1	past	IND	3	sg
nerita	Otf. V	2.4.31	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg
scefphe	Otf. V	2.4.33	+	pC	-	*skappjē	B6	verb					S6	pres	OPT	3	sg
errent	Otf. V	2.4.43	+	rC	-	*arrjand	B5b	verb					W1	pres	IND	3	pl
mennisgen	Otf. V	2.4.48	+	nC	+	*mann-iska-	D7	adj	M	n	G	sg					
wenti	Otf. V	2.4.53	+	nC	+	*wandi-	B3	noun	F	i	A	pl					
sazta	Otf. V	2.4.53	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
engila	Otf. V	2.4.57	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
engila	Otf. V	2.4.64	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
derre	Otf. V	2.4.65	+	rC	-	*darrjē	B5b	verb					W1	pres	OPT	3	sg
merre	Otf. V	2.4.65	+	rC	-	*marrjē	B5a	verb					W1	pres	OPT	3	sg
duelle	Otf. V	2.4.66	+	lC	-	*dwalljē	B5b	verb					W1	pres	OPT	3	sg
engilo	Otf. V	2.4.68	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
unredina	Otf. V	2.4.70	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
irkennit	Otf. V	2.4.74	+	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg
mannilih	Otf. V	2.4.76	-	nC	+	*mann-līka-	D3	adverb									
irreke	Otf. V	2.4.79	+	kC	-	*rakkjē	B5b	verb					W1	pres	OPT	3	sg
henti	Otf. V	2.4.85	+	nC	+	*handi-	B3	noun	F	i	D	sg					
giuuelti	Otf. V	2.4.85	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
spenit	Otf. V	2.4.87	+	n	+	*spanid	C2	verb					S6	pres	IND	3	sg
engila	Otf. V	2.4.99	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					

engila	Otf. V	2.4.102	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
ellu	Otf. V	2.4.103	+	lC	-	*all- <i>iu</i>	C6	noun	F	a/ō	N	sg					
redina	Otf. V	2.4.103	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	N	sg					
giuuarilicho	Otf. V	2.5.4	-	rC	+	*war- <i>lika-</i>	D3	adverb									
gireh inan	Otf. V	2.5.6	+	k	+	*rak- <i>inā</i>	E	verb					S5	past	IND	3	sg
heriduames	Otf. V	2.5.22	+	r	+	*hari-	B1c	noun	M	a/ō	G	sg					
ferti	Otf. V	2.5.25	+	rC	+	*fardi-	B3	noun	F	i	D	sg					
biskrankta	Otf. V	2.5.28	-	nC	-	*skrankid-	B5a	verb					W1	past	IND	3	sg
iruuanta	Otf. V	2.5.28	-	nC	-	*wandid-	B5a	verb					W1	past	IND	3	sg
gizalta	Otf. V	2.6.1	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
zellu	Otf. V	2.6.2	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zalta	Otf. V	2.6.17	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
mennisgen	Otf. V	2.6.27	+	nC	+	*mann- <i>iska-</i>	D7	adj	M	a/ō	D	pl					
niruuanta	Otf. V	2.6.28	-	nC	-	*wandid-	B5a	verb					W1	past	IND	3	sg
firsancta	Otf. V	2.6.28	-	nC	-	*sankid-	B5a	verb					W1	past	IND	3	sg
uuanta	Otf. V	2.6.42	-	nC	-	*wandid-	B5a	verb					W1	past	IND	3	sg
zaltiz	Otf. V	2.6.44	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
egislih	Otf. V	2.6.44	+	g	+	*agis- <i>lika-</i>	A	adverb									
beziremo	Otf. V	2.6.45	+	t	+	*batira-	C5	adj	N	a/ō	D	sg					
beziro	Otf. V	2.6.47	+	t	+	*batira-	C5	adj	F	a/ō	N	sg					
santa	Otf. V	2.6.48	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
redinu	Otf. V	2.6.57	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	D	sg					
freuuidu	Otf. V	2.6.57	+	w	+	*frawiḃō-	D1	noun	F	a/ō	D	sg					
redinon	Otf. V	2.7.1	+	ḃ	+	*raḃinōn	A	inf					W2				
sant	Otf. V	2.7.4	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
thekit	Otf. V	2.7.4	+	k	+	*pakid	B5b	verb					W1	pres	IND	3	sg
thenita	Otf. V	2.7.9	+	n	+	*ḃanid-	B5b	verb					W1	past	IND	3	sg
zelita	Otf. V	2.7.9	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
nerita	Otf. V	2.7.13	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg
biuuerita	Otf. V	2.7.13	+	r	+	*warid-	B5c	verb					W1	past	IND	3	sg
irretit	Otf. V	2.7.14	+	d	+	*radid	B5b	verb					W1	past	IND	3	sg

skel iz	Otf. V	2.7.16	+	l	+	*skal-it	E	verb					PP	pres	IND	3	sg
zellen	Otf. V	2.7.17	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
emmizigen	Otf. V	2.7.18	+	m	+	*amitīga-	A	adverb									
redina	Otf. V	2.7.19	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
selida	Otf. V	2.7.19	+	l	+	*salipō-	D1	noun	F	a/ō	A	sg					
zellu	Otf. V	2.7.29	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zalta	Otf. V	2.7.34	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
dualta	Otf. V	2.7.34	-	lC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
zeliti	Otf. V	2.7.42	+	l	+	*talidī	B5b	verb					W1	past	OPT	3	sg
zelita	Otf. V	2.7.43	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
redina	Otf. V	2.7.47	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
thenki	Otf. V	2.7.52	+	nC	+	*þankī	B5a	verb					W1	pres	IMP	2	sg
zelle	Otf. V	2.7.52	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	1	sg
zalta	Otf. V	2.7.58	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	2.7.62	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
irkanta	Otf. V	2.7.62	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg
irkanta	Otf. V	2.7.65	-	nC	-	*kannid-	B5a	verb					W1	past	IND	1	sg
zalta	Otf. V	2.7.69	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
erkanta	Otf. V	2.7.69	-	nC	-	*kannid-	B5a	verb					W1	past	IND	1	sg
festirun	Otf. V	2.7.70	+	sC	+	*fastira-	C5	adj	F	n	A	sg					
zell	Otf. V	2.7.71	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
engila	Otf. V	2.7.72	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
mennisgun	Otf. V	2.7.74	+	nC	+	*mann-iska-	D7	adj	M	n	A	sg					
gesto	Otf. V	2.8.6	+	sC	-	*gasti-	B3	noun	M	i	G	pl					
hebig	Otf. V	2.8.13	+	b	+	*habīga-	D2	adj	N	a/ō	A	sg					
zellu	Otf. V	2.8.17	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellen	Otf. V	2.8.31	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
nennen	Otf. V	2.8.31	+	mC	-	*namnjam	B5b	verb					W1	pres	IND	1	pl
redinu	Otf. V	2.8.32	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
uueren	Otf. V	2.8.34	+	r	-	*warjan	B5c	inf					W1				
skanctin	Otf. V	2.8.37	-	nC	+	*skank-	C3	verb					W1	past	OPT	3	pl

						(i)dīn												
uuantin	Otf. V	2.8.37	-	nC	+	*wand-(i)dīn	C3	verb						W1	past	OPT	3	pl
scanktun	Otf. V	2.8.41	-	nC	-	*skankid-	B5a	verb						W1	past	IND	3	pl
irkantun	Otf. V	2.8.41	-	nC	-	*kannid-	B5a	verb						W1	past	IND	3	pl
freuuit	Otf. V	2.8.47	+	w	+	*frawid	B5b	verb						W1	pres	IND	3	sg
skenkit	Otf. V	2.8.50	+	nC	+	*skankid	B5a	verb						W1	pres	IND	3	sg
drenk ih	Otf. V	2.8.52	+	nC	-	*drank-ik	E	verb						S3	pres	IND	1	sg
mennisgon	Otf. V	2.8.53	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl						
redina	Otf. V	2.9.1	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg						
zalta	Otf. V	2.9.1	-	lC	-	*tal(l)id-	B5b	verb						W1	past	IND	1	sg
irzellen	Otf. V	2.9.3	+	lC	-	*talljan	B5b	inf						W1				
gismeken	Otf. V	2.9.5	+	kC	-	*smakkjan	B5b	inf						W1				
intheken	Otf. V	2.9.5	+	kC	-	*þakkjan	B5b	verb						W1	pres	OPT	1	pl
zellu	Otf. V	2.9.11	+	lC	-	*tallju	B5b	verb						W1	pres	IND	1	sg
drenkent	Otf. V	2.9.14	+	nC	-	*drankjand	B5a	verb						W1	pres	IND	3	pl
skenkent	Otf. V	2.9.15	+	nC	-	*skankjand	B5a	verb						W1	pres	IND	3	pl
skenkent	Otf. V	2.9.16	+	nC	-	*skankjand	B5a	verb						W1	pres	IND	3	pl
ellu	Otf. V	2.9.21	-	lC	-	*all-iu	C6	adj	N	a/ō	A	pl						
erzelist	Otf. V	2.9.22	+	l	+	*talis	B5b	verb						W1	pres	IND	2	sg
irthenken	Otf. V	2.9.23	+	nC	-	*þankjand	B5a	inf						W1				
gidrenken	Otf. V	2.9.23	+	nC	-	*drankjand	B5a	inf						W1				
gifreuen	Otf. V	2.9.24	+	wC	-	*frawwjan	B5b	inf						W1				
zellu	Otf. V	2.9.25	+	lC	-	*tallju	B5b	verb						W1	pres	IND	1	sg
gismakta	Otf. V	2.9.26	-	kC	-	*smak(k)id-	B5b	verb						W1	past	IND	1	sg
gizellen	Otf. V	2.9.29	+	lC	-	*talljan	B5b	inf						W1				
ginennen	Otf. V	2.9.29	+	mC	-	*namnjan	B5a	inf						W1				
firstant-nissi	Otf. V	2.9.30	-	nC	+	*standnissja-	D6	noun	N	ja/jō	N	sg						
uorolt-menigi	Otf. V	2.9.31	+	n	+	*manigīn-	A	noun	F	ī	D	sg						
henti	Otf. V	2.9.44	+	nC	+	*handi-	B3	noun	F	i	D	sg						

uuant	Otf. V	2.9.45	-	nC	-	*wandid-	B5a	verb					W1	past	IND	3	sg
legita	Otf. V	2.9.47	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
dualti	Otf. V	2.9.49	-	IC	+	*dwalidī	C3	verb					W1	past	OPT	3	sg
firbranti	Otf. V	2.9.49	-	nC	+	*brannidī	C3	verb					W1	past	OPT	3	sg
thenita	Otf. V	2.9.51	+	n	+	*panid-	B5b	verb					W1	past	IND	3	sg
engil	Otf. V	2.9.51	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
erkennene	Otf. V	2.9.55	+	nC	-	*kannjan	B5a	inf					W1				
thenke	Otf. V	2.9.64	+	nC	-	*pankjē	B5a	verb					W1	pres	OPT	3	sg
gidrenke	Otf. V	2.9.64	+	nC	-	*drankjē	B5a	verb					W1	pres	OPT	3	sg
reken	Otf. V	2.9.69	+	kC	-	*rakkjan	B5b	inf					W1				
gismeken	Otf. V	2.9.69	+	kC	-	*smakkjan	B5b	inf					W1				
zellen	Otf. V	2.9.70	+	IC	-	*talljan	B5b	inf					W1				
redion	Otf. V	2.9.71	+	þ	+	*raþjōm	A	verb					W2	pres	IND	1	sg
salta	Otf. V	2.9.77	-	IC	-	*sal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	2.9.87	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
alabeziron	Otf. V	2.9.88	+	t	+	*batira-	C5	adj	M	n	A	sg					
duellen	Otf. V	2.9.89	+	IC	-	*dwalljan	B5b	inf					W1				
zellen	Otf. V	2.9.89	+	IC	-	*talljan	B5b	inf					W1				
bithenken	Otf. V	2.9.90	+	nC	-	*pankjand	B5a	inf					W1				
drenken	Otf. V	2.9.90	+	nC	-	*drankjand	B5a	inf					W1				
mahti	Otf. V	2.9.91	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
kwalist	Otf. V	2.9.92	+	l	+	*kwalis	B5b	verb					W1	pres	IND	2	sg
redihafto	Otf. V	2.9.92	+	þ	+	*hraþi- hafta-	B1b	adverb									
drenkist	Otf. V	2.9.94	+	nC	+	*drankis	B5a	verb					W1	pres	IND	2	sg
thenken	Otf. V	2.10.2	+	nC	-	*pankjan	B5a	inf					W1				
uuangta	Otf. V	2.10.6	-	nC	-	*wankid-	B5a	verb					W1	past	IND	3	sg
drankta	Otf. V	2.10.6	-	nC	-	*drankid-	B5a	verb					W1	past	IND	3	sg
gegin- uuerti	Otf. V	2.10.8	+	rC	+	*wardīn-	B2	noun	F	ī	N	sg					
freuuita	Otf. V	2.10.19	+	w	+	*frawid-	B5b	verb					W1	past	IND	3	sg
uuenkit	Otf. V	2.10.20	+	nC	+	*wankid	B5a	verb					W1	pres	IND	3	sg

drenkit	Otf. V	2.10.20	+	nC	+	*drankid	B5a	verb					W1	pres	IND	3	sg
freuuida	Otf. V	2.10.21	+	w	+	*frawiḃō-	D1	noun	F	a/ō	D	sg					
hebigo	Otf. V	2.11.5	+	b	+	*habīga-	D2	adverb									
unredi- hafto	Otf. V	2.11.6	+	ḃ	+	*hrai- hafta-	B1b	adverb									
kraftlicho	Otf. V	2.11.10	+	fC	+	*kraft- līka-	D3	adverb									
festi	Otf. V	2.11.12	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
hangta	Otf. V	2.11.16	-	nC	-	*hangid-	B5a	verb					W1	pres	IND	3	sg
uuerf iz	Otf. V	2.11.19	+	rC	+	*warp it	E	verb					S3	past	IND	3	sg
anauuelti	Otf. V	2.11.24	+	IC	+	*waldi-	B3	noun	F	i	D	sg					
uueri	Otf. V	2.11.28	+	r	+	*warīn-	B2	noun	F	ī	D	sg					
uueritun	Otf. V	2.11.30	+	r	+	*warid-	B5c	verb					W1	past	IND	3	pl
redina	Otf. V	2.11.48	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	A	sg					
selida	Otf. V	2.11.48	+	l	+	*saliḃō-	D1	noun	F	a/ō	A	pl					
bithenkit	Otf. V	2.11.52	+	nC	+	*ḃankida-	B5a	ppl					W1	past			
elichor	Otf. V	2.11.52	+	l	+	*ali-līka-	D3	adverb									
uuenkit	Otf. V	2.11.52	+	nC	+	*wankid	B5a	verb					W1	pres	IND	3	sg
irkanta	Otf. V	2.11.63	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg
zalti	Otf. V	2.11.66	-	IC	+	*talidī	C3	verb					W1	past	OPT	3	sg
inthekit	Otf. V	2.11.67	+	kC	+	*ḃak(k)ida-	B5b	ppl					W1	past			
rekit	Otf. V	2.11.67	+	kC	+	*rak(k)id	B5b	verb					W1	pres	IND	3	sg
dregit	Otf. V	2.11.68	+	g	+	*dragid	C2	verb					S6	pres	IND	3	sg
edilthegan	Otf. V	2.12.1	+	ḃ	+	*aḃil- ḃegana-	A	noun	M	a/ō	N	sg					
zellu	Otf. V	2.12.7	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zalta	Otf. V	2.12.11	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalt	Otf. V	2.12.12	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
freuue	Otf. V	2.12.20	+	wC	-	*frawwjē	B5a	verb					W1	pres	IND	3	sg
ellu	Otf. V	2.12.30	+	IC	-	*all- iu	C6	adj	F	a/ō	N	sg					
zellu	Otf. V	2.12.30	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ginenden	Otf. V	2.12.36	+	nC	-	*nanḃjēn	B5a	verb					W1	pres	OPT	3	pl

menden	Otf. V	2.12.36	+	nC	-	*manþjēn	B5a	verb					W1	pres	OPT	3	pl
megi	Otf. V	2.12.37	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
mende	Otf. V	2.12.38	+	nC	-	*manþjē	B5a	verb					W1	pres	OPT	3	sg
uuenkit	Otf. V	2.12.42	+	nC	+	*wankid	B5a	verb					W1	pres	IND	3	sg
ferit	Otf. V	2.12.43	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
zalt	Otf. V	2.12.51	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zellen	Otf. V	2.12.55	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
iruuellu	Otf. V	2.12.57	+	lC	-	*wallju	B5b	verb					W1	pres	IND	1	sg
gizellu	Otf. V	2.12.57	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
niruuelit	Otf. V	2.12.58	+	l	+	*walid	B5b	verb					W1	pres	IND	3	sg
redinon	Otf. V	2.12.60	+	þ	+	*raþinōn	A	inf					W2				
mennisgen	Otf. V	2.12.62	+	nC	+	*mann-iska-	D7	adj	M	n	G	sg					
mennisgen	Otf. V	2.12.68	+	nC	+	*mann-iska-	D7	adj	M	n	G	sg					
frauaes	Otf. V	2.12.70	-	wC	-	*frawwja-	B1b	adj	M	ja/jō	G	sg					
sant	Otf. V	2.12.75	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
mennisgon	Otf. V	2.12.77	+	nC	+	*mann-iska-	D7	adj	M	n	A	pl					
firthuasbti	Otf. V	2.12.77	-	sC	+	*þwasp-(i)dī	C3	verb					W1	past	OPT	3	sg
zellu	Otf. V	2.12.92	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
bithenkit	Otf. V	2.12.95	+	nC	+	*þankid	B5a	verb					W1	pres	IND	3	sg
gizaltun	Otf. V	2.13.2	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
heltit	Otf. V	2.13.10	+	lC	+	*haldid	C2	verb					S7	pres	IND	3	sg
firsechit	Otf. V	2.13.13	+	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
freuuida	Otf. V	2.13.15	+	w	+	*frawiþō-	D1	noun	F	a/ō	N	sg					
freuuida	Otf. V	2.13.16	+	w	+	*frawiþō-	D1	noun	F	a/ō	N	pl					
kreftin	Otf. V	2.13.18	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
ferit	Otf. V	2.13.21	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
gistentit	Otf. V	2.13.22	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
ellu	Otf. V	2.13.22	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
sant	Otf. V	2.13.29	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
geb imo	Otf. V	2.13.30	+	b	+	*gab-imu	E	verb					S5	past	IND	3	sg

henti	Otf. V	2.13.30	+	nC	+	*handi-	B3	noun	F	i	D	sg					
giuuelti	Otf. V	2.13.30	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
alliebesten	Otf. V	2.13.33	-	lC	+	*allja-	B1b	adverb									
alliebesten	Otf. V	2.13.33	+	t	-	*batista-	C5	adverb									
giredinot	Otf. V	2.13.40	+	þ	+	*raþinōda-	A	ppl					W2	past			
geuui	Otf. V	2.14.2	+	wC	+	*gawwja-	B1b	noun	N	ja/jō	A	sg					
nennent	Otf. V	2.14.2	+	mC	-	*namnjand	B5a	verb					W1	pres	IND	3	pl
ferti	Otf. V	2.14.3	+	rC	+	*fardi-	B3	noun	F	i	G	sg					
gizaltun	Otf. V	2.14.7	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	pl
nennen	Otf. V	2.14.8	+	mC	-	*namnjam	B5a	verb					W1	pres	IND	1	pl
zelita	Otf. V	2.14.20	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
gilepphes	Otf. V	2.14.28	+	pC	-	*lappjēs	B5b	verb					W1	pres	OPT	2	sg
giscepphes	Otf. V	2.14.28	+	pC	-	*skappjēs	B6	verb					S6	pres	OPT	2	sg
zellen	Otf. V	2.14.29	+	lC	-	*talljan	B5b	inf					W1				
zellu	Otf. V	2.14.32	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	2.14.32	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
redino	Otf. V	2.14.35	+	þ	+	*raþinō	A	verb					W2	pres	OPT	1	sg
ellu	Otf. V	2.14.36	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
zellu	Otf. V	2.14.36	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
githenkit	Otf. V	2.14.37	+	nC	+	*þankid	B5a	verb					W1	pres	IND	3	sg
gidranktist	Otf. V	2.14.44	-	nC	+	*drankidīs	C3	verb					W1	past	OPT	2	sg
emmizen	Otf. V	2.14.45	+	m	+	*amita-	A	adverb									
zellu	Otf. V	2.14.48	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellu	Otf. V	2.14.52	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zelitun	Otf. V	2.14.56	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
mennisgon	Otf. V	2.14.62	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
redion	Otf. V	2.14.66	+	þ	+	*raþjōm	A	verb					W2	pres	IND	1	sg
gegin- uuertig	Otf. V	2.14.67	+	rC	+	*ward-īga-	D2	adj	F	a/ō	N	sg					
mahtin	Otf. V	2.14.71	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
irrechit	Otf. V	2.14.77	+	kC	+	*rak(k)id	B5b	verb					W1	pres	IND	3	sg

zelita	Otf. V	2.14.88	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
seginin	Otf. V	2.14.91	+	g	+	*saginan-	A	noun	F	n	D	sg					
megi	Otf. V	2.14.91	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
emmizen	Otf. V	2.14.102	+	m	+	*amita-	A	adverb									
santa	Otf. V	2.14.109	-	nC	-	*sandid-	B5a	verb					W1	past	IND	1	sg
mennisgon	Otf. V	2.14.122	+	nC	+	*mann-iska-	D7	adj	M	n	A	pl					
gineriti	Otf. V	2.14.122	+	r	+	*naridī	B5c	verb					W1	past	OPT	3	sg
redina	Otf. V	2.15.1	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
menigi	Otf. V	2.15.9	+	n	+	*manigīn-	A	noun	F	ī	A	sg					
ummahtin	Otf. V	2.15.10	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
menigi	Otf. V	2.15.13	+	n	+	*manigīn-	A	noun	F	ī	A	sg					
freuuen	Otf. V	2.16.4	+	wC	-	*frawwjan	B5b	inf					W1				
gifreuuit	Otf. V	2.16.11	+	w	+	*frawid	B5b	verb					W1	pres	IND	3	sg
seti	Otf. V	2.16.15	+	d	+	*sadīn-	B2	noun	F	ī	D	sg					
zellent	Otf. V	2.16.35	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
freuuet	Otf. V	2.16.37	+	wC	-	*frawwjad	B5b	verb					W1	pres	IMP	2	pl
garauuaz	Otf. V	2.16.38	-	rC	-	*garwja-	B1b	adj	N	ja/jō	N	sg					
stentit	Otf. V	2.17.13	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
brennit	Otf. V	2.17.15	+	nC	+	*brannid	B5a	verb					W1	pres	IND	3	sg
biuuelze	Otf. V	2.17.16	+	lC	-	*waltjē	B5a	verb					W1	pres	OPT	3	sg
irheffe	Otf. V	2.17.17	+	bC	-	*habbjē	B6	verb					S6	pres	OPT	3	sg
mehti	Otf. V	2.17.22	+	hC	+	*mahti-	B3	noun	F	i	A	pl					
zellen	Otf. V	2.17.22	+	lC	-	*talljēn	B5b	verb					W1	pres	OPT	3	pl
krefti	Otf. V	2.17.22	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
mannilih	Otf. V	2.17.24	-	nC	+	*mann-līka-	D3	adverb									
redino	Otf. V	2.18.3	+	þ	+	*raþinō	A	verb					W2	pres	OPT	1	sg
giuunte	Otf. V	2.18.8	+	nC	-	*wandjē	B5a	verb					W1	pres	OPT	3	sg
redina	Otf. V	2.18.9	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
zell	Otf. V	2.18.13	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
redina	Otf. V	2.18.13	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
mannilih	Otf. V	2.18.15	-	nC	+	*mann-līka-	D7	adverb									

uueltit	Otf. V	2.18.17	+	IC	+	*waldid	C2	verb					S7	pres	IND	3	sg
giheltit	Otf. V	2.18.17	+	IC	+	*haldid	C2	verb					S7	pres	IND	3	sg
gihaltmissu	Otf. V	2.18.18	-	IC	+	*hald-nisjō-	D6	noun	F	ja/jō	D	sg					
firsuerie	Otf. V	2.19.7	+	r	+	*swarjē	B6	verb					S6	pres	OPT	3	sg
uuerie	Otf. V	2.19.7	+	r	+	*warjē	B5c	verb					W1	pres	OPT	3	sg
uuerrent	Otf. V	2.19.8	+	rC	-	*warrjand	B5b	verb					W1	pres	IND	3	pl
suerrent	Otf. V	2.19.8	+	rC	-	*swarrjand	B6	verb					S6	pres	IND	3	pl
zellu	Otf. V	2.20.5	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	2.20.5	+	IC	-	*all-iu	C6	adj	N	a/ō	A	pl					
rehtredina	Otf. V	2.20.9	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
zellu	Otf. V	2.20.10	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
githenkes	Otf. V	2.21.2	+	nC	-	*þankjēs	B5a	verb					W1	pres	OPT	2	sg
festi	Otf. V	2.21.6	+	sC	+	*fastja-	B1a	adj	M	ja/jō	N	sg					
redinon	Otf. V	2.21.13	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
irkennit	Otf. V	2.21.21	+	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg
zellet	Otf. V	2.21.22	+	IC	-	*talljēd	B5b	verb					W1	pres	OPT	2	pl
garalicho	Otf. V	2.21.26	-	rC	-	*garwja- lika-	B1a	adverb									
emmizigen	Otf. V	2.21.30	+	m	+	*amitīga-	A	adverb									
engilon	Otf. V	2.21.32	+	nC	+	*angila-	A	noun	M	a/ō	D	pl					
dagalichun	Otf. V	2.21.33	-	gC	-	*dag-lika-	D3	adj	F	n	A	pl					
thenken	Otf. V	2.21.36	+	nC	-	*þankjam	B5a	verb					W1	pres	IND	1	pl
emmizigen	Otf. V	2.21.36	+	m	+	*amitīga-	A	adverb									
gizelit	Otf. V	2.21.44	+	l	+	*talida-	B5b	ppl					W1	past			
megit	Otf. V	2.22.3	+	g	+	*magīd	C4a	verb					PP	pres	OPT	2	pl
gifestit	Otf. V	2.22.5	+	sC	+	*fastida-	B5a	ppl					W1	past			
ginerien	Otf. V	2.22.12	+	r	+	*narjēn	B5c	verb					W1	pres	OPT	3	pl
giuuerien	Otf. V	2.22.12	+	r	+	*warjēn	B5c	verb					W1	pres	OPT	3	pl
uuerren	Otf. V	2.22.17	+	rC	-	*warrjan	B5b	inf					W1				
gifarauues	Otf. V	2.22.24	-	rC	-	*farwjēs	B5a	verb					W1	pres	OPT	2	sg
uuerie	Otf. V	2.22.26	+	r	+	*warjē	B5c	verb					W1	pres	OPT	3	sg

emmizigen	Otf. V	2.22.26	+	m	+	*amitīga-	A	adverb										
nerie	Otf. V	2.22.26	+	r	+	*narjē	B5c	verb					W1	pres	OPT	3	sg	
mahti	Otf. V	2.22.29	-	hC	+	*mahti-	B3	noun	F	i	D	sg						
zellu	Otf. V	2.23.3	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
brennent	Otf. V	2.23.17	+	nC	-	*brannjand	B5a	verb					W1	pres	IND	3	pl	
gengit	Otf. V	2.23.19	+	nC	+	*gangid	C2	verb					S6	pres	IND	3	sg	
hengit	Otf. V	2.23.19	+	nC	+	*hangid	B5a	verb					W1	pres	IND	3	sg	
namati	Otf. V	2.23.26	-	m	-	*namidīn?	A	noun	F	ī	D	sg						
zell	Otf. V	2.23.27	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
irzellen	Otf. V	2.24.5	+	lC	-	*talljan	B5b	inf										
menigi	Otf. V	2.24.8	+	n	+	*manigīn-	A	noun	F	ī	N	sg						
festi	Otf. V	2.24.11	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg						
festi	Otf. V	2.24.14	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg						
egislichen	Otf. V	2.24.26	+	g	+	*agis-lika-	A	adj	F	a/ō	D	pl						
mahtin	Otf. V	2.24.26	-	hC	+	*mahti-	B3	noun	F	i	D	pl						
zellent	Otf. V	2.24.27	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl	
redina	Otf. V	2.24.27	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg						
zellen	Otf. V	2.24.30	+	lC	-	*talljēn	B5b	verb					W1	pres	OPT	3	pl	
leggen	Otf. V	2.24.31	+	gC	-	*laggjēm	B5b	verb					W1	pres	OPT	1	pl	
festino	Otf. V	2.24.34	+	sC	+	*fastinō	A	verb					W1	pres	IMP	2	sg	
engilon	Otf. V	2.24.43	+	nC	+	*angila-	A	noun	M	a/ō	D	pl						
redinon	Otf. V	3.1.1	+	þ	+	*raþinōn	A	inf					W2					
irzelle	Otf. V	3.1.6	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg	
dregit	Otf. V	3.1.7	+	g	+	*dragid	C2	verb					S6	pres	IND	3	sg	
uuenke	Otf. V	3.1.14	+	nC	-	*wankjē	B5a	verb					W1	pres	OPT	3	sg	
iruuagtos	Otf. V	3.1.21	-	gC	-	*wag(g)id-	B5b	verb					W1	past	IND	2	sg	
zellu	Otf. V	3.1.27	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
freuuit	Otf. V	3.1.30	+	w	+	*frawid	B5b	verb					W1	pres	IND	3	sg	
kestiga	Otf. V	3.1.31	+	sC	+	*kastigō-	A	noun	F	a/ō	A	sg						
henti	Otf. V	3.1.37	+	nC	+	*handi-	B3	noun	F	i	D	sg						
bitherbi	Otf. V	3.1.40	+	rC	+	*þarbja-	B1a	noun	N	ja/jō	A	sg						

adalerbi	Otf. V	3.1.40	+	rC	+	*arbja-	B1a	noun	N	ja/jō	A	sg					
biuuerre	Otf. V	3.1.42	+	rC	-	*warrjē	B5b	verb					W1	pres	OPT	3	sg
zellen	Otf. V	3.2.4	+	IC	-	*talljan	B5b	inf					W1				
unmahti	Otf. V	3.2.8	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
mahtin	Otf. V	3.2.16	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
stetin	Otf. V	3.2.17	+	d	+	*stadi-	B3	noun	F	i	D	pl					
kreftiger	Otf. V	3.2.18	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
mahti	Otf. V	3.2.25	-	hC	+	*mahti-	B3	noun	F	i	A	pl					
zaltun	Otf. V	3.2.27	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
zellen	Otf. V	3.2.31	+	IC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
irkanta	Otf. V	3.2.35	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg
ganzida	Otf. V	3.2.36	-	nC	+	*gantīpō-	D1	noun	F	a/ō	A	sg					
armilichaz	Otf. V	3.3.2	-	rC	+	*arm-lika-	D3	adj	N	a/ō	A	sg					
ummahtin	Otf. V	3.3.7	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
geginuueri	Otf. V	3.3.8	+	rC	+	*wardīn-	B2	noun	F	ī	A	sg					
streuuit	Otf. V	3.3.11	+	w	+	*strawid	B5b	verb					W1	pres	IND	3	sg
giscefti	Otf. V	3.3.19	+	fC	+	*skafti-	B3	noun	F	i	G	sg					
zalta	Otf. V	3.3.24	-	IC	-	*tal(l)ida-	B5b	verb					W1	pres	IND	3	sg
zellent	Otf. V	3.4.4	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
nennent	Otf. V	3.4.4	+	mC	-	*namnjand	B5b	verb					W1	pres	IND	3	pl
engil	Otf. V	3.4.11	+	nC	+	*angila-	A	noun	N	a/ō	N	sg					
gizaltan	Otf. V	3.4.15	-	IC	-	*tal(l)ida-	B5b	ppl					W1	past			
uuangta	Otf. V	3.4.17	-	nC	-	*wangid-	B5a	verb					W1	past	IND	3	sg
ginendes	Otf. V	3.4.28	+	nC	-	*nanbjēs	B5a	verb					W1	pres	OPT	2	sg
menigi	Otf. V	3.4.42	+	n	+	*manigīn-	A	noun	F	ī	D	sg					
uuerie	Otf. V	3.4.46	+	r	+	*warjē	B5c	verb					W1	pres	OPT	3	sg
ummahti	Otf. V	3.5.2	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
redina	Otf. V	3.5.5	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
derre	Otf. V	3.5.6	+	rC	-	*darrjē	B5b	verb					W1	pres	OPT	3	sg
mahtin	Otf. V	3.5.10	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
herti	Otf. V	3.5.16	+	rC	+	*hardīn-	B2	noun	F	ī	N	sg					

emmizigen	Otf. V	3.5.16	+	m	+	*amitīga-	A	adverb										
emmizigen	Otf. V	3.5.22	+	m	+	*amitīga-	A	adverb										
zellu	Otf. V	3.6.1	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
ellu	Otf. V	3.6.1	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg						
zellent	Otf. V	3.6.6	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl	
nennent	Otf. V	3.6.6	+	lC	-	*namnjand	B5b	verb					W1	pres	IND	3	pl	
uorolt- menigi	Otf. V	3.6.8	+	n	+	*manigīn-	A	noun	F	ī	N	sg						
menigi	Otf. V	3.6.16	+	n	+	*manigīn-	A	noun	F	ī	A	sg						
irrechen	Otf. V	3.6.24	+	kC	-	*rakkjēn	B5b	verb					W1	pres	OPT	3	pl	
gismeken	Otf. V	3.6.24	+	kC	-	*smakkjēn	B5b	verb					W1	pres	OPT	3	pl	
dregit	Otf. V	3.6.28	+	g	+	*dragid	C2	verb					S6	pres	IND	3	sg	
girestit	Otf. V	3.6.32	+	sC	+	*rastid	B5a	verb					W1	pres	IND	3	sg	
zellent	Otf. V	3.6.34	+	lC	-	*talljand	B5a	verb					W1	pres	IND	3	pl	
heri	Otf. V	3.6.35	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg						
ferti	Otf. V	3.6.36	+	rC	+	*fardi-	B3	noun	F	i	G	sg						
henti	Otf. V	3.6.36	+	nC	+	*handi-	B3	noun	F	i	D	sg						
mannilih	Otf. V	3.6.44	-	nC	+	*mann-lika-	D3	adverb										
redinon	Otf. V	3.7.4	+	þ	+	*raþinō-	A	noun	F	a/ō	D	pl						
irstantnisse	Otf. V	3.7.7	-	nC	+	*stand- nissja-	D6	noun	N	ja/jō	D	sg						
frenkisgon	Otf. V	3.7.13	+	nC	+	*frank-iska-	D7	adj	M	n	A	sg						
zerbit	Otf. V	3.7.14	+	rC	+	*tarbid	B5a	verb					W1	pres	IND	3	sg	
emmizigen	Otf. V	3.7.14	+	m	+	*amitīga-	A	adverb										
uuerbit	Otf. V	3.7.14	+	rC	+	*warbid	B5a	verb					W1	pres	IND	3	sg	
zerbit	Otf. V	3.7.17	+	rC	+	*tarbid	B5a	verb					W1	pres	IND	3	sg	
uuerbit	Otf. V	3.7.17	+	rC	+	*warbid	B5a	verb					W1	pres	IND	3	sg	
emmizigen	Otf. V	3.7.18	+	m	+	*amitīga-	A	adverb										
thuangta	Otf. V	3.7.24	-	nC	-	*þwangid-	B5a	verb					W1	past	IND	3	sg	
zellen	Otf. V	3.7.25	+	lC	-	*talljan	B5b	inf					W1					
hert	Otf. V	3.7.25	+	rC	-	*hardja-	B1a	adj	F	ja/jō	N	sg						
herter	Otf. V	3.7.29	+	rC	-	*hardja-	B1a	adj	M	ja/jō	N	sg						

sazta	Otf. V	3.7.38	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
zellent	Otf. V	3.7.45	+	lC	-	*taljand	B5b	verb					W1	pres	IND	3	pl
selmi	Otf. V	3.7.45	+	lC	+	*salmi-	B3	noun	M	i	A	pl					
zalta	Otf. V	3.7.46	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redina	Otf. V	3.7.51	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	A	pl					
zelitun	Otf. V	3.7.56	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
legitun	Otf. V	3.7.56	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	pl
scalklichaz	Otf. V	3.7.59	-	lC	+	*skalk-lika-	D3	adj	N	a/ō	N	sg					
ginenne	Otf. V	3.7.60	+	mC	-	*namnjē	B5a	verb					W1	pres	OPT	3	sg
derre	Otf. V	3.7.72	+	rC	+	*darrjē	B5b	verb					W1	pres	OPT	3	sg
gimerre	Otf. V	3.7.72	+	rC	+	*marrjē	B5a	verb					W1	pres	OPT	3	sg
uuehsit	Otf. V	3.7.73	+	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
herti	Otf. V	3.7.75	+	rC	+	*hardīn-	B2	noun	F	ī	D	sg					
uuehsit	Otf. V	3.7.79	+	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
emmizigen	Otf. V	3.7.80	+	m	+	*amitīga-	A	adverb									
redina	Otf. V	3.7.81	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	A	pl					
biuuerien	Otf. V	3.7.90	+	r	+	*warjan	B5c	inf					W1				
nerien	Otf. V	3.7.90	+	r	+	*narjan	B5c	inf					W1				
giuuelti	Otf. V	3.8.5	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
feritun	Otf. V	3.8.12	+	r	+	*farid-	B5c	verb					W1	past	IND	3	pl
herti	Otf. V	3.8.14	+	rC	+	*hardja-	B1a	adj	N	ja/jō	N	sg					
ferti	Otf. V	3.8.14	+	rC	+	*fardi-	B3	noun	F	i	D	sg					
gengist	Otf. V	3.8.33	+	nC	+	*gangis	C2	verb					S7	pres	IND	2	sg
dualta	Otf. V	3.8.35	-	lC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
sankta	Otf. V	3.8.39	-	nC	-	*sankid-	B5a	verb					W1	past	IND	3	sg
uuankta	Otf. V	3.8.39	-	nC	-	*wankid-	B5a	verb					W1	past	IND	3	sg
thenita	Otf. V	3.8.42	+	n	+	*ɸanid-	B5b	verb					W1	past	IND	3	sg
nerita	Otf. V	3.8.43	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg
rafsta	Otf. V	3.8.44	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
githenken	Otf. V	3.8.45	+	nC	-	*ɸankjan	B5a	inf					W1				
giuuenken	Otf. V	3.8.45	+	nC	-	*wankjan	B5a	inf									

retita	Otf. V	3.8.49	+	d	+	*radid-	B5b	verb					W1	past	IND	3	sg
uuerd iz	Otf. V	3.9.4	+	rC	+	*warþ-it	E	verb					S3	past	IND	3	sg
ummahti	Otf. V	3.9.5	-	hC	+	*mahti-	B3	noun	F	i	A	pl					
ellu	Otf. V	3.9.5	-	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
festi	Otf. V	3.9.19	+	sC	+	*fastja-	B1a	adj	M	ja/jō	N	sg					
zalta	Otf. V	3.10.8	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinonti	Otf. V	3.10.13	+	þ	+	*raþinōnd-	A	ppl					W1	pres			
gisentit	Otf. V	3.10.23	+	nC	+	*sandida-	B5a	ppl					W1	past			
gismekkent	Otf. V	3.10.40	+	kC	-	*smakkjand	B5b	verb					W1	pres	IND	3	pl
festi	Otf. V	3.10.41	+	sC	+	*fastīn-	B2	noun	F	ī	A	sg					
irkant	Otf. V	3.10.41	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	pl
festā	Otf. V	3.11.1	+	sC	-	*fastja-	B1a	adj	F	ja/jō	A	sg					
redihافتor	Otf. V	3.11.3	+	þ	+	*hraþi-hafta-	B1b	adverb									
zalta	Otf. V	3.11.19	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinota	Otf. V	3.11.20	+	þ	+	*raþinōd-	A	verb					W2	past	IND	3	sg
iruueliti	Otf. V	3.11.23	+	l	+	*walid-	B5b	verb					W1	past	OPT	3	sg
gizeliti	Otf. V	3.11.23	+	l	+	*talid-	B5b	verb					W1	past	OPT	3	sg
redinon	Otf. V	3.12.1	+	þ	+	*raþinōn	A	inf					W2				
zelitin	Otf. V	3.12.4	+	l	+	*talid-	B5b	verb					W1	past	OPT	3	pl
gizellet	Otf. V	3.12.7	+	lC	-	*talljad	B5b	verb					W1	pres	IMP	2	pl
redinotun	Otf. V	3.12.9	+	þ	+	*raþinōd-	A	verb					W2	past	IND	3	pl
zaltun	Otf. V	3.12.10	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
nennent	Otf. V	3.12.12	+	mC	-	*namnjand	B5a	verb					W1	pres	IND	3	pl
gizellent	Otf. V	3.12.12	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
tharta	Otf. V	3.12.14	-	rC	-	*darrid-	B5a	verb					W1	past	IND	3	sg
bisparta	Otf. V	3.12.14	-	rC	-	*sparrid-	B5a	verb					W1	past	IND	3	sg
thuangta	Otf. V	3.12.16	-	nC	-	*þwangid-	B5a	verb					W1	past	IND	3	sg
zelitin	Otf. V	3.12.19	+	l	+	*talid-	B5b	verb					W1	past	OPT	3	sg
zellent	Otf. V	3.12.22	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
redina	Otf. V	3.12.23	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
festi	Otf. V	3.12.32	+	sC	+	*fastja-	B5a	adj	M	ja/jō	N	sg					

nirmeginot	Otf. V	3.12.35	+	g	+	*maginōd	A	verb					W2	pres	IND	3	sg
helliporta	Otf. V	3.12.35	+	lC	+	*halljō-	B1b	noun	F	a/ō	N	sg					
stentit	Otf. V	3.12.36	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
festi	Otf. V	3.12.36	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg					
intredinon	Otf. V	3.12.42	+	þ	+	*raþinōn	A	inf					W2				
zalt	Otf. V	3.13.3	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
fremidemo	Otf. V	3.13.8	+	m	+	*framipja-	A	adj	M	a/ō	D	sg					
rafsta	Otf. V	3.13.11	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
herti	Otf. V	3.13.19	+	rC	+	*hardja-	B1a	adj	N	ja/jō	N	sg					
meg iz	Otf. V	3.13.24	+	g	+	*mag-it	E	verb					PP	pres	IND	3	sg
githenkit	Otf. V	3.13.26	+	nC	+	*þankid	B5a	verb					W1	pres	IND	3	sg
henti	Otf. V	3.13.32	+	nC	+	*handi-	B3	noun	F	i	D	sg					
ellu	Otf. V	3.13.32	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
uuoroltenti	Otf. V	3.13.32	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	pl					
zellu	Otf. V	3.13.43	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
unredinon	Otf. V	3.13.48	+	þ	+	*raþinō-	A	noun	F	a/ō	D	pl					
giselidon	Otf. V	3.13.48	+	l	+	*salipōn	A	inf					W2				
menigi	Otf. V	3.13.52	+	n	+	*manigīn-	A	noun	F	ī	D	sg					
zelit	Otf. V	3.13.53	+	l	+	*talid	B5b	verb					W1	pres	IND	3	sg
feste	Otf. V	3.13.54	+	sC	-	*fastīn-	B2	noun	F	ī	D	sg					
redion	Otf. V	3.14.4	+	þ	+	*raþiōm	A	verb					W2	pres	IND	1	sg
menigi	Otf. V	3.14.15	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
irkanta	Otf. V	3.14.36	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg
antota	Otf. V	3.14.37	-	nC	-	*andjōd-	B1a	verb					W2	past	IND	3	sg
zalta	Otf. V	3.14.41	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinu	Otf. V	3.14.51	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
zellu	Otf. V	3.14.52	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	3.14.52	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
ummahti	Otf. V	3.14.56	-	hC	-	*mahti-	B3	noun	F	i	A	pl					
iruuagtun	Otf. V	3.14.60	-	kC	-	*wak(k)id-	B5b	verb					W1	past	IND	3	pl
gizalte	Otf. V	3.14.67	-	lC	-	*tal(l)ida-	B5b	ppl					W1	past			

bettirison	Otf. V	3.14.67	+	dC	+	*baddi- risan-	B1a	noun	M	n	N	pl						
ummahtige	Otf. V	3.14.68	-	hC	+	*mahṭīga-	D2	adj	M	a/ō	N	pl						
menigi	Otf. V	3.14.72	+	n	+	*manigīn-	A	noun	F	ī	A	sg						
irzellen	Otf. V	3.14.73	+	IC	-	*talljan	B5b	inf					W1					
uuanta	Otf. V	3.14.78	-	nC	-	*wandid-	B5a	verb					W1	past	IND	3	sg	
nandta	Otf. V	3.14.78	-	nC	-	*nanpid-	B5a	verb					W1	past	IND	3	sg	
redina	Otf. V	3.14.85	+	ḅ	+	*raḅinō-	A	noun	F	a/ō	A	sg						
sant	Otf. V	3.14.85	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg	
armilihen	Otf. V	3.14.87	-	rC	+	*arm-lika-	D3	adj	F	a/ō	D	pl						
sechil	Otf. V	3.14.91	+	kC	+	*sakkila-	A	noun	N	a/ō	A	sg						
pending	Otf. V	3.14.92	+	nC	+	*pandinga-	A	noun	M	a/ō	A	sg						
henti	Otf. V	3.14.94	+	nC	+	*handi-	B3	noun	F	i	D	sg						
emmizen	Otf. V	3.14.116	+	m	+	*amita-	A	adverb										
menigi	Otf. V	3.14.116	+	n	+	*manigīn-	A	noun	F	ī	N	sg						
hebigan	Otf. V	3.14.117	+	b	+	*habīga-	D2	adj	M	a/ō	A	sg						
emmizen	Otf. V	3.14.118	+	m	+	*amita-	A	adverb										
armlichun	Otf. V	3.14.120	-	rC	+	*arm-lika-	D3	adj	M	a/ō	N	pl						
redina	Otf. V	3.15.13	+	ḅ	+	*raḅinō-	A	noun	F	a/ō	A	sg						
selida	Otf. V	3.15.13	+	l	+	*salīḅō-	D1	noun	F	a/ō	A	sg						
githenke	Otf. V	3.15.24	+	nC	-	*ḅankjē	B5a	verb					W1	pres	OPT	3	sg	
zellu	Otf. V	3.15.31	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
armilichun	Otf. V	3.15.31	+	rC	+	*arm-lika-	D3	adj	F	n	A	pl						
stetin	Otf. V	3.15.36	+	d	+	*stadi-	B3	noun	F	i	D	pl						
zaltun	Otf. V	3.15.41	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl	
zaltun	Otf. V	3.15.43	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl	
zaltun	Otf. V	3.15.47	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl	
nantun	Otf. V	3.15.47	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	pl	
uangnti	Otf. V	3.15.51	-	nC	+	*wang(i)dī	C3	verb					W1	past	OPT	3	sg	
gisentit	Otf. V	3.16.14	+	nC	+	*sandida-	B5a	ppl					W1	past				
thenken	Otf. V	3.16.15	+	nC	-	*ḅankjan	B5a	inf					W1					

yrkenn	Otf. V	3.16.17	+	nC	-	*kannjē	B5a	verb					W1	pres	OPT	3	sg
uuentit	Otf. V	3.16.21	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg
sentit	Otf. V	3.16.21	+	nC	+	*sandid	B5a	verb					W1	pres	IND	3	sg
ferit	Otf. V	3.16.22	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
giuuaralicho	Otf. V	3.16.22	-	rC	+	*war-līka-	D3	adverb									
menigi	Otf. V	3.16.27	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
thenke	Otf. V	3.16.30	+	nC	-	*þankjē	B5a	verb					W1	pres	OPT	3	sg
zalta	Otf. V	3.16.32	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zellent	Otf. V	3.16.50	+	lC	-	*talljan	B5b	inf					W1				
unredina	Otf. V	3.16.56	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
santa	Otf. V	3.16.64	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
santa	Otf. V	3.16.66	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
hebigen	Otf. V	3.17.1	+	b	+	*habīga-	D2	adj	F	a/ō	D	pl					
kraflīchaz	Otf. V	3.17.2	-	fC	+	*kraft-līka-	D3	adj	N	a/ō	N	sg					
redia	Otf. V	3.17.6	+	þ	+	*raþiō-	A	noun	F	a/ō	A	sg					
zeli	Otf. V	3.17.17	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg
zalta	Otf. V	3.17.25	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinoti	Otf. V	3.17.30	+	þ	+	*raþinō-	A	verb					W2	past	OPT	3	sg
sarphidu	Otf. V	3.17.34	-	rC	+	*skarpīþō-	D1	adj	F	a/ō	D	sg					
zelluh	Otf. V	3.17.40	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
gizeliti	Otf. V	3.17.48	+	l	+	*talidī	B5b	verb					W1	past	OPT	3	sg
queliti	Otf. V	3.17.48	+	l	+	*kwalidī	B5b	verb					W1	past	OPT	3	sg
mahtin	Otf. V	3.17.56	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
emmiziger	Otf. V	3.17.66	+	m	+	*amitīga-	A	adj	M	a/ō	N	sg					
iruuelitaz	Otf. V	3.17.67	+	l	+	*walida-	B5b	ppl					W1	past			
hebigen	Otf. V	3.18.1	+	b	+	*habīga-	D2	adj	F	a/ō	D	pl					
mahtin	Otf. V	3.18.2	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
ginenne	Otf. V	3.18.3	+	mC	-	*namnjē	B5a	verb					W1	pres	OPT	3	sg
gizelle	Otf. V	3.18.4	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
zellu	Otf. V	3.18.6	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellen	Otf. V	3.18.14	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl

elibenzo	Otf. V	3.18.14	+	l	+	*ali-	B3	noun	M	n	N	sg					
elibenzo	Otf. V	3.18.14	+	nC	-	*bandjan-	B1a	noun	M	n	N	sg					
fremider	Otf. V	3.18.14	+	m	+	*framipja-	A	adj	M	ja/jō	N	sg					
zellent	Otf. V	3.18.22	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
uueltit	Otf. V	3.18.28	+	lC	+	*waldid	C2	verb					S7	pres	IND	3	sg
zalta	Otf. V	3.18.34	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
bifalta	Otf. V	3.18.34	-	lC	-	*fallid-	B5a	verb					W1	past	IND	3	sg
redinon	Otf. V	3.18.35	+	þ	+	*raþinōn	A	inf					W2				
zelles	Otf. V	3.18.36	+	lC	-	*talljēs	B5b	verb					W1	pres	OPT	2	sg
nennet	Otf. V	3.18.44	+	mC	-	*namnjad	B5a	verb					W1	pres	IND	2	pl
nirkennet	Otf. V	3.18.44	+	nC	-	*kannjad	B5a	verb					W1	pres	IND	2	pl
irkennu	Otf. V	3.18.44	+	nC	-	*kannju	B5a	verb					W1	pres	IND	1	sg
redinon	Otf. V	3.18.46	+	þ	-	*raþinō-	A	noun	F	a/ō	D	pl					
freuuita	Otf. V	3.18.51	+	w	+	*frawid-	B5b	verb					W1	past	IND	3	sg
emmizigen	Otf. V	3.18.59	+	m	+	*amitīga-	D2	adverb									
emmizigen	Otf. V	3.18.68	+	m	+	*amitīga-	D2	adverb									
redi	Otf. V	3.19.4	+	þ	+	*hrapja-	B1b	adverb									
gihengen	Otf. V	3.19.7	+	nC	-	*hangjēm	B5a	inf					W1	pres	OPT	1	pl
menigi	Otf. V	3.19.18	+	g	+	*manigīn-	A	noun	F	ī	G	sg					
emmizen	Otf. V	3.19.26	+	m	+	*amitīga-	A	adverb									
threuuen	Otf. V	3.19.30	+	wC	-	*þrawwjam	B5b	verb					W1	pres	IND	1	pl
githenke	Otf. V	3.19.34	-	nC	-	*þankjē	B5a	verb					W1	pres	OPT	3	sg
biskrenke	Otf. V	3.19.34	+	nC	-	*skrankjē	B5a	verb					W1	pres	OPT	3	sg
firdregist	Otf. V	3.19.38	+	g	+	*dragis	C2	verb					S6	pres	IND	2	sg
zalta	Otf. V	3.20.8	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
ummahti	Otf. V	3.20.9	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
thenke	Otf. V	3.20.13	+	nC	-	*þankjē	B5a	verb					W1	pres	OPT	3	sg
santa	Otf. V	3.20.14	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
thenken	Otf. V	3.20.19	+	nC	-	*þankjan	B5a	inf					W1				
mennisgon	Otf. V	3.20.22	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
irkennen	Otf. V	3.20.30	+	nC	-	*kannjan	B5a	inf					W1				

zellen	Otf. V	3.20.30	+	lC	-	*talljan	B5a	inf					W1				
mannliches	Otf. V	3.20.39	-	nC	+	*mann-lika-	D3	adj	M	a/ō	G	sg					
uuenti	Otf. V	3.20.39	+	nC	+	*wandi-	B3	noun	F	i	D	sg					
armilichun	Otf. V	3.20.41	-	rC	+	*arm-lika-	D3	adj	F	n	N	pl					
zelluh	Otf. V	3.20.45	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
thenken	Otf. V	3.20.56	+	nC	-	*bankjan	B5a	inf					W1				
menigi	Otf. V	3.20.63	+	n	+	*manigīn-	A	noun	F	ī	D	sg					
hebigaz	Otf. V	3.20.67	+	b	+	*habīga-	D2	adj	N	a/ō	N	sg					
steti	Otf. V	3.20.77	+	d	+	*stadi-	B3	noun	F	i	D	sg					
gizaltin	Otf. V	3.20.79	-	lC	+	*talidīn	C3	verb					W1	past	OPT	3	pl
giuuaralichen	Otf. V	3.20.81	-	rC	+	*war-lika-	D3	adj	N	a/ō	D	pl					
zelitun	Otf. V	3.20.88	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
zellen	Otf. V	3.20.92	+	lC	-	*talljan	B5b	inf					W1				
feste	Otf. V	3.20.98	+	sC	-	*fastja-	B1a	noun	N	ja/jō	D	sg					
iruueliti	Otf. V	3.20.99	+	l	+	*walidī	B5b	verb					W1	past	OPT	3	sg
gizeliti	Otf. V	3.20.99	+	l	+	*talidī	B5b	verb					W1	past	OPT	3	sg
zalta	Otf. V	3.20.110	-	lC	+	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
ummahtin	Otf. V	3.20.118	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
zalta	Otf. V	3.20.125	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
emmizigen	Otf. V	3.20.128	+	m	+	*amitīga-	A	adverb									
redion	Otf. V	3.20.143	+	β	+	*raβiōn	A	inf					W2				
redinon	Otf. V	3.20.144	+	β	+	*raβinō-	A	noun	F	a/ō	D	pl					
thenkit	Otf. V	3.20.150	+	nC	+	*pankid	B5a	verb					W1	pres	IND	3	sg
unredinon	Otf. V	3.20.164	+	β	+	*raβinō-	A	noun	F	a/ō	D	pl					
zalta	Otf. V	3.20.184	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
mennisgon	Otf. V	3.21.12	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
gisceftin	Otf. V	3.21.18	+	fC	+	*skafti-	B3	noun	F	i	D	pl					
kreftin	Otf. V	3.21.18	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
mannilih	Otf. V	3.21.23	-	nC	+	*mann-lika-	D3	adverb									

uueltit	Otf. V	3.21.26	+	IC	+	*waldid	C2	verb					S7	pres	IND	3	sg
gisentit	Otf. V	3.21.26	+	nC	+	*sandida-	B5a	ppl					W1				
santi	Otf. V	3.21.28	-	nC	+	*sandidī	C3	verb					W1	past	OPT	3	sg
uuanti	Otf. V	3.21.28	-	nC	+	*wandidī	C3	verb					W1	past	OPT	3	sg
irkantin	Otf. V	3.21.31	-	nC	+	*kannidīm	C3	verb					W1	past	OPT	1	pl
pedin	Otf. V	3.21.32	+	d	+	*padi-	B3	noun	M	i	D	pl					
zelita	Otf. V	3.22.8	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
iruuelita	Otf. V	3.22.8	+	l	+	*walid-	B5b	verb					W1	past	IND	3	sg
spenis	Otf. V	3.22.11	+	n	+	*spanis	C2	verb					S6	pres	IND	2	sg
gizel	Otf. V	3.22.14	+	l	-	*talī	B5b	verb					W1	pres	IMP	2	sg
zellu	Otf. V	3.22.16	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
gizalt	Otf. V	3.22.19	-	IC	-	*tal(l)ida-	B5b	ppl					W1	past			
iruuellu	Otf. V	3.22.20	+	IC	-	*wallju	B5b	verb					W1	pres	IND	1	sg
gizellu	Otf. V	3.22.21	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
iruuellu	Otf. V	3.22.21	+	IC	-	*wallju	B5b	verb					W1	pres	IND	1	sg
irkennu	Otf. V	3.22.23	+	nC	-	*kannju	B5a	verb					W1	pres	IND	1	sg
enti	Otf. V	3.22.26	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
henti	Otf. V	3.22.26	+	nC	+	*handi-	B3	noun	F	i	D	sg					
mennisgen	Otf. V	3.22.27	+	nC	+	*mann- iska-	D7	adj	M	a/ō	A	sg					
henti	Otf. V	3.22.28	+	nC	+	*handi-	B3	noun	F	i	D	sg					
manigu	Otf. V	3.22.37	-	n	+	*manīga-	D2	adj	N	a/ō	A	pl					
nennit	Otf. V	3.22.50	+	mC	+	*namnid-	B5a	verb					W1	pres	IND	3	sg
ginant	Otf. V	3.22.51	-	mC	-	*namnida-	B5a	ppl					W1	past			
gizaltun	Otf. V	3.22.52	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
festi	Otf. V	3.22.54	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
nanta	Otf. V	3.22.55	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg
santa	Otf. V	3.22.55	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg
ginendu	Otf. V	3.22.58	+	nC	-	*nanbju	B5a	verb					W1	pres	IND	1	sg
nennu	Otf. V	3.22.58	+	mC	-	*namnju	B5a	verb					W1	pres	IND	1	sg
thenku	Otf. V	3.22.61	+	nC	-	*bankju	B5a	verb					W1	pres	IND	1	sg

irkennet	Otf. V	3.22.63	+	nC	-	*kannjēd	B5a	verb					W1	pres	OPT	2	pl
zaltun	Otf. V	3.22.65	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
zellenne	Otf. V	3.23.2	+	lC	-	*talljan	B5b	inf					W1				
zellen	Otf. V	3.23.3	+	lC	-	*talljan	B5b	inf					W1				
kreftigera	Otf. V	3.23.6	+	fC	+	*kraftīga-	D2	adj	F	a/ō	D	sg					
ummahti	Otf. V	3.23.6	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
zell	Otf. V	3.23.7	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellen	Otf. V	3.23.13	+	lC	-	*talljan	B5b	inf					W1				
santun	Otf. V	3.23.15	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	pl
ummahti	Otf. V	3.23.21	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
mahtin	Otf. V	3.23.21	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
gengit	Otf. V	3.23.35	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
iruueken	Otf. V	3.23.44	+	kC	-	*wakkjan	B5b	inf					W1				
irreken	Otf. V	3.23.44	+	kC	-	*rakkjan	B5b	inf					W1				
zellen	Otf. V	3.23.50	+	lC	-	*talljan	B5b	inf					W1				
freuuen	Otf. V	3.23.51	+	wC	-	*frawwjan	B5b	inf					W1				
garauue	Otf. V	3.23.60	-	rC	-	*garwja-	B1a	adj	M	ja/jō	N	pl					
menigi	Otf. V	3.24.3	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
menigi	Otf. V	3.24.6	+	n	+	*manigīn-	A	noun	F	ī	A	sg					
zaharin	Otf. V	3.24.9	-	hC	+	*tahri-	B3	noun	M	i	D	pl					
hangti	Otf. V	3.24.14	-	nC	+	*hangidī	C3	verb					W1	past	OPT	3	sg
irstentit	Otf. V	3.24.21	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
ellu	Otf. V	3.24.24	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
ellu	Otf. V	3.24.26	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
irstantnissi	Otf. V	3.24.27	-	nC	+	*stand-nissja-	D6	noun	N	ja/jō	N	sg					
festi	Otf. V	3.24.28	+	sC	-	*fastja-	B1a	adj	M	ja/jō	N	sg					
zellu	Otf. V	3.24.33	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	3.24.33	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
festi	Otf. V	3.24.34	+	sC	-	*fastja-	B1a	adj	N	ja/jō	N	pl					
gizelita	Otf. V	3.24.37	+	l	+	*talida-	B5b	ppl					W1	past			

zaharin	Otf. V	3.24.48	-	hC	+	*tahri-	B3	noun	M	i	D	pl					
zaharin	Otf. V	3.24.58	-	hC	+	*tahri-	B3	noun	M	i	D	pl					
zelitin	Otf. V	3.24.61	+	l	+	*talidīn	B5b	verb					W1	past	OPT	3	pl
legitin	Otf. V	3.24.61	+	g	+	*lagidīn	B5b	verb					W1	past	OPT	3	pl
felisa	Otf. V	3.24.65	+	l	+	*falisō-	A	noun	F	a/ō	N	sg					
menigi	Otf. V	3.24.67	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
zahari	Otf. V	3.24.72	-	hC	+	*tahri-	B3	noun	M	i	A	pl					
kreftig	Otf. V	3.24.78	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
intheket	Otf. V	3.24.82	+	kC	-	*pakkjad	B5b	verb					W1	pres	IMP	2	pl
ketti	Otf. V	3.24.82	+	dC	+	*kaddja-	B1b	noun	N	ja/jō	A	sg					
betti	Otf. V	3.24.82	+	dC	+	*baddja-	B1b	noun	N	ja/jō	A	sg					
zelluh	Otf. V	3.24.84	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
emmizen	Otf. V	3.24.92	+	m	+	*amita-	A	adverb									
zelluh	Otf. V	3.24.95	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
hellono	Otf. V	3.24.100	+	lC	-	*halljō-	B1b	noun	F	ja/jō	G	pl					
zellen	Otf. V	3.24.107	+	lC	-	*talljan	B5b	inf					W1				
zell	Otf. V	3.24.112	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
uuroolt- menigi	Otf. V	3.25.4	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
dualtun	Otf. V	3.25.6	-	lC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
hengen	Otf. V	3.25.10	+	nC	-	*hangjēm	B5a	verb					W1	pres	OPT	1	pl
kreftigera	Otf. V	3.25.18	+	fC	+	*kraftīga-	D2	adj	F	a/ō	D	sg					
henti	Otf. V	3.25.18	+	nC	+	*handi-	B3	noun	F	i	D	sg					
elilenti	Otf. V	3.25.18	+	l	+	*ali-	B3	adj	M	ja/jō	N	pl					
elilenti	Otf. V	3.25.18	+	nC	+	*landja-	B1a	adj	M	ja/jō	N	pl					
bithenket	Otf. V	3.25.23	+	nC	-	*pānkjad	B5a	verb					W1	pres	IMP	2	pl
zalta	Otf. V	3.25.34	-	lC	-	*tal(l)id-	B5a	verb					W1	past	IND	3	sg
festi	Otf. V	3.25.37	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
redinu	Otf. V	3.26.1	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	D	sg					
menigu	Otf. V	3.26.1	+	n	+	*manīga-	D2	adj	N	a/ō	A	pl					
redinon	Otf. V	3.26.11	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	D	pl					

giuuelti	Otf. V	3.26.16	+	IC	+	*walđi-	B3	noun	F	i	D	sg					
elilenti	Otf. V	3.26.16	+	l	+	*ali-	B3	adj	M	ja/jō	N	pl					
elilenti	Otf. V	3.26.16	+	nC	+	*landja-	B1a	adj	M	ja/jō	N	pl					
enti	Otf. V	3.26.21	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
elilenti	Otf. V	3.26.21	+	l	+	*ali-	B3	adj	M	ja/jō	N	pl					
elilenti	Otf. V	3.26.21	+	nC	+	*landja-	B1a	adj	M	ja/jō	N	pl					
elilente	Otf. V	3.26.23	+	l	+	*ali-	B3	noun	N	ja/jō	D	sg					
elilente	Otf. V	3.26.23	+	nC	-	*landja-	B1a	noun	N	ja/jō	D	sg					
thenkemes	Otf. V	3.26.25	+	nC	-	*þankjam	B5a	verb					W1	pres	IND	1	pl
gimerrit	Otf. V	3.26.41	+	rC	-	*marrida-	B5a	ppl					W1	past			
bifalta	Otf. V	3.26.53	-	IC	-	*fallid-	B5a	verb					W1	past	IND	3	sg
zalta	Otf. V	3.26.53	-	IC	-	*tal(l)id-	B5a	verb					W1	past	IND	3	sg
redinota	Otf. V	3.26.54	+	þ	+	*raþinōd-	A	verb					W2	past	IND	3	sg
thenken	Otf. V	3.26.61	+	nC	-	*þankjan	B5a	inf					W1				
emimizigen	Otf. V	3.26.61	+	m	+	*amitīga-	A	adverb									
zelle	Otf. V	3.26.63	+	IC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
nenne	Otf. V	3.26.64	+	mC	-	*namnjē	B5a	verb					W1	pres	OPT	3	sg
ginenden	Otf. V	3.26.67	+	nC	-	*nanþjēn	B5a	verb					W1	pres	OPT	3	pl
menden	Otf. V	3.26.67	+	nC	-	*manþjēn	B5a	verb					W1	pres	OPT	3	pl
gifestit	Otf. V	3.26.69	+	sC	+	*fastida-	B5a	ppl					W1	past			
thenkit	Otf. V	4.1.4	+	nC	-	*þankid	B5a	verb					W1	pres	IND	3	sg
firthuesben	Otf. V	4.1.4	+	sC	-	*þwaspjēn	B5a	verb					W1	pres	OPT	3	pl
irkantin	Otf. V	4.1.12	-	nC	+	*kannidīn	C3	verb					W1	past	OPT	3	pl
redinon	Otf. V	4.1.15	+	þ	+	*raþinōn	A	inf					W2				
zalt	Otf. V	4.1.17	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
gizelle	Otf. V	4.1.25	+	IC	-	*talljē	B5b	verb					W1	pres	OPT	1	sg
gizalta	Otf. V	4.1.28	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
zalti	Otf. V	4.1.34	-	IC	+	*talidī	C3	verb					W1	past	OPT	3	sg
krefti	Otf. V	4.1.40	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
irthenken	Otf. V	4.1.47	+	nC	-	*þankjan	B5a	inf					W1				
mahtin	Otf. V	4.1.52	-	hC	+	*mahti-	B3	noun	F	i	D	pl					

freuen	Otf. V	4.1.54	+	wC	-	*frawwjan	B5b	inf					W1				
mennisgon	Otf. V	4.2.2	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
iruuagta	Otf. V	4.2.6	+	kC	-	*wak(k)id-	B5b	verb					W1	past	IND	3	sg
garetun	Otf. V	4.2.7	-	rC	-	*garwid-	B5b	verb					W1	past	IND	3	pl
uuangti	Otf. V	4.2.11	-	nC	+	*wang(i)dī	C3	verb					W1	past	OPT	3	sg
giscankti	Otf. V	4.2.11	-	nC	+	*skank(i)dī	C3	verb					W1	past	OPT	3	sg
iruueliti	Otf. V	4.2.23	+	l	+	*walidī	B5b	verb					W1	past	OPT	3	sg
neriti	Otf. V	4.2.23	+	r	+	*naridī	B5c	verb					W1	past	OPT	3	sg
githakti	Otf. V	4.2.24	-	kC	+	*pak(k)idī	C3	verb					W1	past	OPT	3	sg
hebiger	Otf. V	4.2.29	+	b	+	*habīga-	D2	adj	M	a/ō	N	sg					
sekilari	Otf. V	4.2.29	+	kC	+	*sakkila-	A	noun	M	ja/jō	N	sg					
redinon	Otf. V	4.2.30	+	þ	+	*raþinōn	A	inf					W2				
emmizigen	Otf. V	4.2.34	+	m	+	*amitīga-	A	adverb									
uorolt- menigi	Otf. V	4.3.2	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
fertin	Otf. V	4.3.4	+	rC	+	*fardi-	B3	noun	F	i	D	pl					
irkantin	Otf. V	4.3.4	-	nC	+	*kannidīn	C3	verb					W1	past	OPT	3	pl
krefti	Otf. V	4.3.15	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
menigi	Otf. V	4.3.18	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
menigi	Otf. V	4.3.19	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
gertun	Otf. V	4.3.21	+	rC	-	*gardjō-	B1a	noun	F	ja/jō	A	pl					
esil	Otf. V	4.4.6	+	s	+	*asili-	B3	noun	M	i	A	sg					
esilin	Otf. V	4.4.9	+	s	+	*asili-	B3	noun	M	i	N	sg					
henge	Otf. V	4.4.11	+	nC	-	*hangjē	B5a	verb					W1	pres	OPT	3	sg
legitun	Otf. V	4.4.15	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	pl
menigi	Otf. V	4.4.17	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
quattun	Otf. V	4.4.18	-	dC	-	*kwad(d)id-	B5b	verb					W1	past	IND	3	pl
thagtun	Otf. V	4.4.18	-	kC	-	*pak(k)id-	B5b	verb					W1	past	IND	3	pl
thagtun	Otf. V	4.4.29	-	kC	-	*pak(k)id-	B5b	verb					W1	past	IND	3	pl
streuuitun	Otf. V	4.4.31	+	w	+	*strawid-	B5b	verb					W1	past	IND	3	pl
esti	Otf. V	4.4.33	+	sC	+	*asti-	B3	noun	M	i	A	pl					

gifreuetin	Otf. V	4.4.36	+	w	-	*frawidīn	B5b	verb					W1	past	OPT	3	pl
gistreuuitin	Otf. V	4.4.36	+	w	-	*strawidīn	B5b	verb					W1	past	OPT	3	pl
heri	Otf. V	4.4.38	+	r	+	*harja-	B1c	noun	M	ja/jō	N	sg					
redihafter	Otf. V	4.4.38	+	þ	+	*hrapi-hafta-	B1b	adj	M	a/ō	N	sg					
redihftaz	Otf. V	4.4.42	+	þ	+	*hrapi-hafta-	B1b	adj	N	a/ō	A	sg					
uueltis	Otf. V	4.4.43	+	lC	+	*waldis	C2	verb					S6	pres	IND	2	sg
engilo	Otf. V	4.4.51	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
giuuelti	Otf. V	4.4.52	+	lC	+	*walddi-	B3	noun	F	i	D	sg					
heriscaf	Otf. V	4.4.56	+	r	+	*hari-skapi-	B1c	noun	F	i	N	sg					
githrenge	Otf. V	4.4.57	+	nC	-	*brangja-	B1a	noun	M	ja/jō	D	sg					
krefti	Otf. V	4.4.58	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
heri	Otf. V	4.4.62	+	r	+	*harja-	B1c	noun	N	ja/jō	D	sg					
engit	Otf. V	4.4.62	+	nC	+	*angid	B5a	verb					W1	pres	IND	3	sg
egislihu	Otf. V	4.4.69	+	g	+	*agis-lika-	A	adj	F	a/ō	N	sg					
selidono	Otf. V	4.4.70	+	l	+	*salipō-	D1	noun	F	a/ō	G	pl					
gengit	Otf. V	4.4.75	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
gihengit	Otf. V	4.4.75	+	nC	+	*hangidī	B5a	verb					W1	pres	IND	3	sg
ellu	Otf. V	4.4.76	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
zellen	Otf. V	4.5.1	+	lC	-	*talljan	B5b	inf					W1				
fertin	Otf. V	4.5.2	+	rC	+	*fardi-	B3	noun	F	i	D	sg					
esti	Otf. V	4.5.4	+	sC	+	*asti-	B3	noun	M	i	N	pl					
zetitun	Otf. V	4.5.4	+	d	+	*tadid-	B5b	verb					W1	past	IND	3	pl
legitun	Otf. V	4.5.4	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	pl
irkenn	Otf. V	4.5.5	+	nC	-	*kannī	B5a	verb					W1	pres	IMP	2	sg
umbitherbe	Otf. V	4.5.15	+	rC	-	*þarbja-	B1a	adj	M	ja/jō	N	pl					
thaktin	Otf. V	4.5.29	-	kC	+	*þakkidīn	C3	verb					W1	past	OPT	3	pl
iruuaktin	Otf. V	4.5.29	-	kC	+	*wakkidīn	C3	verb					W1	past	OPT	3	pl
leggen	Otf. V	4.5.32	+	gC	-	*laggjēn	B5b	verb					W1	pres	OPT	3	pl
bitheken	Otf. V	4.5.32	+	kC	-	*þakkjēn	B5b	verb					W1	pres	OPT	3	pl
gileggent	Otf. V	4.5.33	+	gC	-	*laggjand	B5b	verb					W1	pres	IND	3	pl
menigi	Otf. V	4.5.41	+	n	+	*manigīn-	A	noun	F	ī	N	sg					

heriscaf	Otf. V	4.5.42	+	r	+	*hari-skapi-	B1c	noun	F	i	N	sg					
iruuellen	Otf. V	4.5.50	+	lC	-	*walljēm	B5b	verb					W1	pres	OPT	1	pl
sellen	Otf. V	4.5.50	+	lC	-	*salljēm	B5b	verb					W1	pres	OPT	1	pl
ferti	Otf. V	4.5.51	+	rC	+	*fardi-	B3	noun	F	i	G	sg					
menigi	Otf. V	4.5.53	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
estin	Otf. V	4.5.54	+	sC	+	*asti-	B3	noun	M	i	D	pl					
streuent	Otf. V	4.5.56	+	wC	-	*straww- jand	B5b	verb					W1	pres	IND	3	pl
giuuezzen	Otf. V	4.5.58	+	tC	-	*wattjēn	B5b	verb					W1	pres	OPT	1	pl
anasezzen	Otf. V	4.5.58	+	tC	-	*sattjan	B5b	inf					W1				
garauuaz	Otf. V	4.5.64	-	rC	-	*garwja-	B1a	adj	N	ja/jō	A	sg					
selidono	Otf. V	4.6.1	+	l	+	*salipō-	D1	noun	F	a/ō	D	pl					
irtharta	Otf. V	4.6.5	-	rC	-	*parrid-	B5a	verb					W1	past	IND	3	sg
niregisota	Otf. V	4.6.12	+	g	+	*agisōd-	A	verb					W2	past	IND	3	sg
zalta	Otf. V	4.6.15	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
gizalta	Otf. V	4.6.34	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	4.6.35	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
alta	Otf. V	4.6.45	-	lC	-	*aldid-	B5a	verb					W1	past	IND	3	sg
zalta	Otf. V	4.6.45	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinot	Otf. V	4.6.46	+	ḃ	+	*raḃinōd	A	verb					W2	pres	IND	3	sg
zalt	Otf. V	4.6.47	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
gizalta	Otf. V	4.6.49	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalt	Otf. V	4.6.52	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalt	Otf. V	4.6.55	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
yruuehsit	Otf. V	4.7.11	+	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
zalt	Otf. V	4.7.13	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
strengan	Otf. V	4.7.16	+	nC	-	*strangja-	B1a	adj	M	ja/jō	A	sg					
herizohon	Otf. V	4.7.17	+	r	+	*harja-	B1c	noun	M	n	D	pl					
uuentet	Otf. V	4.7.22	+	nC	-	*wandjad	B5a	verb					W1	pres	IMP	2	pl
redina	Otf. V	4.7.24	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	D	sg					
festes	Otf. V	4.7.26	+	sC	-	*fastja-	B1a	adj	M	ja/jō	G	sg					

endidagen	Otf. V	4.7.27	+	nC	+	*andja-	B1a	noun	M	n	D	sg						
mennisgen	Otf. V	4.7.40	+	nC	+	*mann-iska-	D7	adj	M	n	G	sg						
engila	Otf. V	4.7.41	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
kraftlicho	Otf. V	4.7.42	-	fC	+	*kraft-līka-	D3	adverb										
mennisgen	Otf. V	4.7.52	+	nC	+	*mann-iska-	D7	adj	M	n	G	sg						
festi	Otf. V	4.7.55	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg						
ginerie	Otf. V	4.7.60	+	r	+	*narjē	B5c	verb					W1	pres	OPT	3	sg	
biuuerie	Otf. V	4.7.60	+	r	+	*warjē	B5c	verb					W1	pres	OPT	3	sg	
zalta	Otf. V	4.7.69	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg	
gisazt	Otf. V	4.7.81	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg	
thenket	Otf. V	4.7.84	+	nC	-	*pankjad	B5a	verb					W1	pres	IMP	2	pl	
egisen	Otf. V	4.7.86	+	g	+	*agisan-	A	noun	M	n	D	sg						
zaltun	Otf. V	4.8.2	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	pl	
nantun	Otf. V	4.8.2	-	mC	-	*namnid-	B5a	verb					W1	past	IND	1	pl	
menigi	Otf. V	4.8.12	+	n	+	*manigīn-	A	noun	F	ī	N	sg						
scel iz	Otf. V	4.8.16	+	l	+	*skal-it	E	verb					PP	pres	IND	3	sg	
emmizig	Otf. V	4.8.22	+	m	+	*amitīga-	A	adj	N	a/ō	N	sg						
uuenten	Otf. V	4.9.5	+	nC	-	*wandjan	B5a	inf					W1					
selidono	Otf. V	4.9.8	+	l	+	*salijō-	D1	noun	F	a/ō	G	pl						
garauuaz	Otf. V	4.9.12	-	rC	-	*garwja-	B1a	noun	N	ja/jō	A	sg						
gistreui-tero	Otf. V	4.9.13	+	w	+	*strawida-	B5b	ppl					W1	past				
gestin	Otf. V	4.9.14	+	sC	+	*gasti-	B3	noun	M	i	D	pl						
zellu	Otf. V	4.9.25	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg	
mennisgon	Otf. V	4.9.27	+	nC	+	*mann-iska-	D7	noun	M	n	D	pl						
irzellen	Otf. V	4.9.33	+	lC	-	*talljan	B5b	inf					W1					
freuuidu	Otf. V	4.9.34	+	w	+	*frawijō-	D1	noun	F	a/ō	D	sg						
redinu	Otf. V	4.9.34	+	β	+	*raβinō-	A	noun	F	a/ō	D	sg						
redinon	Otf. V	4.10.1	+	β	+	*raβinōn	A	inf					W2					
bithenku	Otf. V	4.10.7	+	nC	-	*pankju	B5a	verb					W1	pres	IND	1	sg	

zellu	Otf. V	4.10.12	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
kelih	Otf. V	4.10.13	+	l	+	*kalika-	A	noun	M	a/ō	A	sg					
firseliti	Otf. V	4.11.4	+	l	+	*salidī	B5b	verb					W1	past	OPT	3	sg
enti	Otf. V	4.11.5	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
henti	Otf. V	4.11.8	+	nC	+	*handi-	B3	noun	F	i	D	sg					
giuuelti	Otf. V	4.11.8	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
legita	Otf. V	4.11.12	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
bekin	Otf. V	4.11.14	+	kC	+	*bakkīna-	A	noun	N	a/ō	A	sg					
henti	Otf. V	4.11.16	+	nC	+	*handi-	B3	noun	F	i	A	pl					
enti	Otf. V	4.11.16	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
meg iz	Otf. V	4.11.29	+	g	+	*mag-it	E	verb					PP	pres	IND	3	sg
gihenge	Otf. V	4.11.30	+	nC	-	*hangjē	B5a	verb					W1	pres	OPT	1	sg
zalta	Otf. V	4.11.41	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redinu	Otf. V	4.11.48	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	D	sg					
freuuida	Otf. V	4.12.2	+	w	+	*frawiḃō-	D1	noun	F	a/ō	N	sg					
zellu	Otf. V	4.12.5	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zelita	Otf. V	4.12.6	+	l	+	*talid-	B5b	verb					W1	past	IND	1	sg
iruuelita	Otf. V	4.12.6	+	l	+	*walid-	B5b	verb					W1	past	IND	1	sg
uorolt- menigi	Otf. V	4.12.7	+	n	+	*manigīn-	A	noun	F	ī	G	sg					
egislichun	Otf. V	4.12.15	+	g	+	*agis-līka-	A	noun	F	n	N	pl					
kraftlichan	Otf. V	4.12.27	+	fC	+	*kraft-līka-	D3	adj	M	a/ō	A	sg					
gisezzo	Otf. V	4.12.31	+	tC	-	*sattjan-	B1b	noun	M	jan/jōn	N	sg					
irretiti	Otf. V	4.12.36	+	d	+	*radidī	B5b	verb					W1	past	OPT	3	sg
mezzo	Otf. V	4.12.46	+	tC	-	*mattjan--	B1b	noun	M	jan/jōn	N	sg					
sekilari	Otf. V	4.12.47	+	kC	+	*sakkila-	A	noun	M	ja/jō	N	sg					
freuuen	Otf. V	4.12.55	+	wC	-	*frawwjan	B5b	inf					W1				
redina	Otf. V	4.12.57	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	A	sg					
meg iz	Otf. V	4.12.58	+	g	+	*mag-it	E	verb					PP	pres	IND	1	sg
menigi	Otf. V	4.12.59	+	n	+	*manigīn-	A	noun	F	ī	D	sg					
heries	Otf. V	4.12.59	+	r	+	*harja-	B1c	noun	N	ja/jō	G	sg					

krefti	Otf. V	4.12.60	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
kreftiger	Otf. V	4.12.61	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
streuuita	Otf. V	4.12.62	+	w	+	*strawid-	B5b	verb					W1	past	IND	3	sg
gilegiti	Otf. V	4.12.64	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
deriti	Otf. V	4.12.64	+	r	+	*daridī	B5c	verb					W1	past	OPT	3	sg
zalta	Otf. V	4.13.2	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
mannilih	Otf. V	4.13.9	+	nC	+	*mann-līka-	D3	adverb									
irkenne	Otf. V	4.13.9	+	nC	-	*kannjē	B5b	verb					W1	pres	OPT	3	sg
ellu	Otf. V	4.13.10	+	lC	-	*all-īu	C6	adj	F	a/ō	N	sg					
thenkit	Otf. V	4.13.14	+	nC	+	*bankī	B5a	verb					W1	pres	IMP	2	sg
egislih	Otf. V	4.13.17	+	g	+	*agis-līka-	A	adverb									
giuuangtis	Otf. V	4.13.18	-	nC	+	*wang(i)dīs	C3	verb					W1	past	OPT	2	sg
gihartis	Otf. V	4.13.18	-	rC	+	*hard(i)dīs	C3	verb					W1	past	OPT	2	sg
baldlicho	Otf. V	4.13.21	-	lC	+	*bald-līka-	D3	adverb									
mahtin	Otf. V	4.13.23	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
giuuenke	Otf. V	4.13.27	+	nC	-	*wankjē	B5a	verb					W1	pres	OPT	1	sg
zalta	Otf. V	4.13.29	-	lC	-	*tal(l)id-	B5b	verb					W1	past	OPT	3	sg
herti	Otf. V	4.13.29	+	rC	+	*hardīn-	B2	noun	F	ī	A	sg					
baldi	Otf. V	4.13.30	-	lC	+	*baldīn-	B2	noun	F	ī	A	sg					
ellenes	Otf. V	4.13.30	+	lC	-	*alljana-	B1b	noun	N	a/ō	G	sg					
zellu	Otf. V	4.13.31	+	lC	-	*tallju	B5b	noun					W1	pres	IND	1	sg
hebigaz	Otf. V	4.13.31	+	b	+	*habīga-	D2	adj	N	a/ō	N	sg					
lezist	Otf. V	4.13.33	+	t	+	*latis	B5b	verb					W1	pres	IND	2	sg
sueris	Otf. V	4.13.34	+	r	+	*swaris	B6	verb					S6	pres	IND	2	sg
speri	Otf. V	4.13.39	+	r	+	*speri	A	adverb									
hebigaz	Otf. V	4.13.47	+	b	+	*habīga-	D2	adj	M	a/ō	N	sg					
hangtin	Otf. V	4.13.51	-	nC	+	*hang-(i)dīn	C3	verb					W1	past	OPT	3	pl
giuuangtin	Otf. V	4.13.51	-	nC	+	*wang-(i)dīn	C3	verb					W1	past	OPT	3	pl
derien	Otf. V	4.13.54	+	r	+	*darjan	B5c	inf					W1				
uuerien	Otf. V	4.13.54	+	r	+	*warjan	B5c	inf					W1				

santa	Otf. V	4.14.1	-	nC	-	*sandid-	B5a	verb					W1	past	IND	1	sg
uuanta	Otf. V	4.14.1	-	nC	-	*wandid-	B5a	verb					W1	past	IND	1	sg
uuerd iz	Otf. V	4.14.3	+	rC	+	*warþ-it	E	verb					S3	past	IND	3	sg
sekil	Otf. V	4.14.5	+	kC	+	*sakkila-	A	noun	N	a/ō	A	sg					
zellent	Otf. V	4.14.12	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
uuerren	Otf. V	4.14.16	+	rC	-	*warrjan	B5b	inf					W1				
zellen	Otf. V	4.14.17	+	lC	-	*talljan	B5b	inf					W1				
iruuelen	Otf. V	4.14.17	+	lC	-	*walljēm	B5b	verb					W1	pres	OPT	1	pl
nerien	Otf. V	4.14.18	+	r	+	*narjēm	B5c	verb					W1	pres	OPT	1	pl
uuerien	Otf. V	4.14.18	+	r	+	*warjēm	B5c	verb					W1	pres	OPT	1	pl
selida	Otf. V	4.15.8	+	l	+	*salijō-	D1	noun	F	a/ō	N	pl					
garauuen	Otf. V	4.15.11	-	rC	-	*garwjan	B5a	inf					W1				
gegen- uueriti	Otf. V	4.15.13	+	rC	+	*wardīn-	B2	noun	F	ī	N	sg					
zalt	Otf. V	4.15.18	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redihaftes	Otf. V	4.15.19	+	þ	+	*hraþi- hafta-	B1b	adj	N	a/ō	G	sg					
unredina	Otf. V	4.15.26	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
unredina	Otf. V	4.15.29	+	þ	+	*raþinō-	A	noun	F	a/ō	A	pl					
iruuelle	Otf. V	4.15.33	+	lC	-	*walljē	B5b	verb					W1	pres	OPT	3	sg
edili	Otf. V	4.15.35	+	þ	+	*abilja-	A	noun	N	ja/jō	A	sg					
zalt	Otf. V	4.15.37	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	4.15.41	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
garauuo	Otf. V	4.15.42	-	rC	-	*garwja-	B1a	adverb									
freuuidu	Otf. V	4.15.48	+	w	+	*frawjþō-	D1	noun	F	a/ō	D	sg					
thenke	Otf. V	4.15.52	+	nC	-	*þankjē	B5a	verb					W1	pres	OPT	3	sg
uuenke	Otf. V	4.15.52	+	nC	-	*wankjē	B5a	verb					W1	pres	OPT	3	sg
zelita	Otf. V	4.15.53	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
gizaltan	Otf. V	4.15.55	-	lC	-	*tal(l)ida-	B5b	ppl					W1	past			
santi	Otf. V	4.15.64	-	nC	+	*sand(i)dī	C3	verb					W1	past	OPT	3	sg
uuant	Otf. V	4.15.64	-	nC	+	*wand(i)dī	C3	verb					W1	past	OPT	3	sg
festes	Otf. V	4.16.4	+	sC	-	*fastja-	B1a	adj	M	ja/jō	G	sg					

nerita	Otf. V	4.16.6	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg
herizohen	Otf. V	4.16.11	+	r	+	*harja-	B1c	noun	M	n	G	sg					
garauuen	Otf. V	4.16.16	-	rC	-	*garwja-	B1a	noun	N	ja/jō	D	pl					
heri	Otf. V	4.16.17	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
menigi	Otf. V	4.16.18	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
henti	Otf. V	4.16.22	+	nC	+	*handi-	B3	noun	F	i	D	sg					
enti	Otf. V	4.16.22	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
armilichun	Otf. V	4.16.24	-	rC	+	*arm-lika-	D3	adj	F	a/ō	G	sg					
biuueriti	Otf. V	4.16.34	+	r	+	*waridī	B5c	verb					W1	past	OPT	3	sg
gineriti	Otf. V	4.16.34	+	r	+	*naridī	B5c	verb					W1	past	OPT	3	sg
zaltun	Otf. V	4.16.37	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
nantun	Otf. V	4.16.37	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	pl
zelitun	Otf. V	4.16.46	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
henti	Otf. V	4.16.56	+	nC	+	*handi-	B3	noun	F	i	N	pl					
gibenti	Otf. V	4.16.56	+	nC	+	*bandja-	B5a	noun	N	ja/jō	A	sg					
giharta	Otf. V	4.17.2	-	rC	-	*hardid-	B5a	verb					W1	past	IND	3	sg
iruuarta	Otf. V	4.17.2	-	rC	-	*wardid-	B5a	verb					W1	past	IND	3	sg
irretiti	Otf. V	4.17.4	+	d	+	*radidī	B5b	verb					W1	past	OPT	3	sg
thenken	Otf. V	4.17.5	+	nC	-	*pankjan	B5a	inf					W1				
uuenken	Otf. V	4.17.5	+	nC	-	*wankjan	B5a	inf					W1				
herie	Otf. V	4.17.7	+	r	+	*harja-	B1c	noun	N	ja/jō	D	sg					
uuerie	Otf. V	4.17.7	+	r	+	*warjē	B5c	verb					W1	pres	OPT	3	sg
baldlichō	Otf. V	4.17.8	-	IC	+	*bald-lika-	D3	adverb									
githrengi	Otf. V	4.17.10	+	nC	-	*prangja-	B1a	noun	M	ja/jō	A	sg					
uuerit	Otf. V	4.17.11	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
uuerien	Otf. V	4.17.13	+	r	+	*warjan	B5c	inf					W1				
nerien	Otf. V	4.17.13	+	r	+	*narjan	B5c	inf					W1				
heriscaf	Otf. V	4.17.15	+	r	+	*hari-skapi-	B1c	noun	F	i	A	sg					
engilo	Otf. V	4.17.16	+	nC	+	*angila-	A	noun	M	a/ō	G	sg					
giuuelti	Otf. V	4.17.16	+	IC	+	*waldi-	B3	noun	F	i	A	pl					
irretitin	Otf. V	4.17.20	+	d	+	*radidīn	B5b	verb					W1	past	OPT	3	pl

irkenni	Otf. V	4.17.21	+	nC	+	*kannī	B5a	verb					W1	pres	IMP	2	sg
saztaz	Otf. V	4.17.24	-	tC	-	*sat(t)ida-	B5b	ppl					W1	past			
egislicha	Otf. V	4.17.29	+	g	+	*agis-līka-	A	adj	F	a/ō	A	pl					
enti	Otf. V	4.18.4	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
menigi	Otf. V	4.18.9	+	n	+	*manigīn-	A	noun	F	ī	D	sg					
uuarmta	Otf. V	4.18.12	-	rC	-	*warmid-	B5a	verb					W1	past	IND	3	sg
festi	Otf. V	4.18.16	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg					
suerien	Otf. V	4.18.29	+	r	+	*swarjan	B6	inf					S6				
ginerien	Otf. V	4.18.29	+	r	+	*narjan	B5c	inf					W1				
zalt	Otf. V	4.18.30	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	4.19.9	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
rafsta	Otf. V	4.19.14	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
biredinon	Otf. V	4.19.25	+	ḅ	+	*raḅinōn	A	inf					W2				
bizelitin	Otf. V	4.19.28	+	l	+	*talid-	B5b	verb					W1	past	OPT	3	pl
zaltun	Otf. V	4.19.29	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
krefto	Otf. V	4.19.31	+	fC	-	*krafti-	B3	noun	F	i	G	pl					
uuekit	Otf. V	4.19.37	+	k	+	*wakida-	B5b	ppl					W1	past			
nennent	Otf. V	4.19.40	+	mC	-	*namnjand	B5a	verb					W1	pres	IND	3	pl
anzellent	Otf. V	4.19.40	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
ginanti	Otf. V	4.19.50	-	mC	+	*namnidī	C3	verb					W1	past	OPT	3	sg
santi	Otf. V	4.19.50	-	nC	+	*sandidī	C3	verb					W1	past	OPT	3	sg
redinu	Otf. V	4.19.56	+	ḅ	+	*raḅinō-	A	noun	F	a/ō	D	sg					
zellu	Otf. V	4.19.61	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
irkenni	Otf. V	4.19.62	+	nC	+	*kannī	B5a	verb					W1	pres	IMP	2	sg
mannilih	Otf. V	4.19.68	-	nC	+	*mann-līka-	D3	adverb									
thenke	Otf. V	4.19.68	+	nC	-	*ḅankjē	B5a	verb					W1	pres	OPT	3	sg
herizoho	Otf. V	4.20.2	+	r	+	*harja-	B1c	noun	M	n	N	sg					
herizoho	Otf. V	4.20.9	+	r	+	*harja-	B1c	noun	M	n	N	sg					
zellet	Otf. V	4.20.10	+	lC	-	*talljad	B5b	verb					W1	pres	IND	2	pl
herti	Otf. V	4.20.11	+	rC	+	*hardīn-	B2	noun	F	ī	N	sg					
hebigen	Otf. V	4.20.16	+	b	+	*habīga-	D2	adj	N	a/ō	D	pl					

zelle	Otf. V	4.20.19	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
beldida	Otf. V	4.20.20	+	lC	+	*bald-iḃō-	D1	noun	F	a/ō	A	sg					
merrit	Otf. V	4.20.28	+	rC	+	*marrid	B5a	verb					W1	pres	IND	3	sg
enton	Otf. V	4.20.38	+	nC	-	*andjōn	B5a	inf					W1				
hanton	Otf. V	4.20.38	-	nC	-	*handi-	B3	noun	F	i	D	pl					
uuassidu	Otf. V	4.20.40	-	sC	+	*hwass-iḃō-	D1	noun	F	a/ō	D	sg					
zelitun	Otf. V	4.21.8	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
zalta	Otf. V	4.21.13	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zaltun	Otf. V	4.21.14	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
beldi	Otf. V	4.21.14	+	lC	+	*baldīn-	B2	noun	F	ī	A	sg					
zellu	Otf. V	4.21.17	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
irretitin	Otf. V	4.21.22	+	d	+	*radidīn	B5b	verb					W1	past	OPT	3	pl
redina	Otf. V	4.21.23	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	A	sg					
biuerie	Otf. V	4.21.24	+	r	+	*warjē	B5c	verb					W1	pres	OPT	1	sg
herie	Otf. V	4.21.24	+	r	+	*harjē	B5c	verb					W1	pres	OPT	1	sg
gizalti	Otf. V	4.21.31	-	lC	+	*tal(i)dī	C3	verb					W1	past	OPT	1	sg
nennes	Otf. V	4.21.35	+	mC	-	*namnjēs	B5a	verb					W1	pres	OPT	2	sg
irretiti	Otf. V	4.22.4	+	d	+	*radidī	B5b	verb					W1	past	OPT	3	sg
irruellet	Otf. V	4.22.11	+	lC	-	*walljēd	B5b	verb					W1	pres	OPT	2	pl
irruellet	Otf. V	4.22.12	+	lC	-	*walljēd	B5b	verb					W1	pres	OPT	2	pl
hebiger	Otf. V	4.22.13	+	b	+	*habīga-	D2	adj	M	a/ō	N	sg					
menigi	Otf. V	4.22.15	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
herizohen	Otf. V	4.22.19	+	r	+	*harja-	B1c	noun	M	n	G	sg					
saztun	Otf. V	4.22.21	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	pl
slegin	Otf. V	4.22.34	+	g	+	*slagi-	B3	noun	M	i	D	pl					
armalichen	Otf. V	4.23.2	-	rC	+	*arm-lika-	D3	adj	M	n	G	sg					
kennet	Otf. V	4.23.3	+	nC	-	*kannjēd	B5a	verb					W1	pres	OPT	2	pl
girefsit	Otf. V	4.23.12	+	fC	+	*rafsida-	B5a	ppl					W1	past			
bistellit	Otf. V	4.23.13	+	lC	-	*stallida-	B5a	ppl					W1	past			
herti	Otf. V	4.23.21	+	rC	+	*hardīn-	B2	noun	F	ī	N	sg					
hanton	Otf. V	4.23.24	-	nC	-	*handi-	B3	noun	F	i	D	pl					

enti	Otf. V	4.23.36	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
henti	Otf. V	4.23.36	+	nC	+	*handi-	B3	noun	F	i	D	sg					
giuueltig	Otf. V	4.23.37	+	IC	+	*wald-īga-	D2	adj	M	a/ō	N	sg					
ellu	Otf. V	4.23.37	+	IC	-	*all-iu	C6	adj	N	a/ō	A	pl					
herizohen	Otf. V	4.23.40	+	r	+	*harja-	B1c	noun	M	n	D	sg					
hanton	Otf. V	4.23.43	-	nC	-	*handi-	B3	noun	F	i	D	pl					
menigi	Otf. V	4.24.4	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
zellen	Otf. V	4.24.12	+	IC	-	*talljan	B5b	inf					W1				
heriscaf	Otf. V	4.24.13	+	r	+	*hari-skapi-	B1c	noun	F	i	N	sg					
armalichen	Otf. V	4.24.24	-	rC	+	*arm-lika-	D3	adj	M	n	G	sg					
henti	Otf. V	4.24.25	+	nC	+	*handi-	B3	noun	F	i	A	pl					
enti	Otf. V	4.24.25	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
garalicho	Otf. V	4.24.31	-	rC	+	*garw-līka-	D3	adverb									
zellen	Otf. V	4.24.32	+	IC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
zalta	Otf. V	4.24.37	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
gizellen	Otf. V	4.25.1	+	IC	-	*talljan	B5b	inf					W1				
quellen	Otf. V	4.25.1	+	IC	-	*kwalljēn	B5b	verb					W1	pres	OPT	3	pl
nerita	Otf. V	4.25.2	+	r	+	*narida-	B5c	verb					W1	past	IND	3	sg
retita	Otf. V	4.25.4	+	d	+	*radid-	B5b	verb					W1	past	IND	3	sg
rechent	Otf. V	4.25.5	+	kC	-	*rakkjand	B5b	verb					W1	pres	IND	3	pl
zalta	Otf. V	4.26.1	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
menigi	Otf. V	4.26.3	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
zellen	Otf. V	4.26.11	+	IC	-	*talljan	B5b	inf					W1				
quellen	Otf. V	4.26.11	+	IC	-	*kwalljan	B5b	inf					W1				
gengit	Otf. V	4.26.14	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
nendit	Otf. V	4.26.14	+	nC	+	*nanpid	B5a	verb					W1	pres	IND	3	sg
mahtin	Otf. V	4.26.16	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
grebiron	Otf. V	4.26.20	+	b	+	*grabir-	A	noun	N	a/ō	D	pl					
thesben	Otf. V	4.26.23	+	sC	-	*þwaspjēn	B5a	verb					W1	pres	OPT	3	pl
irlesgen	Otf. V	4.26.23	+	sC	-	*laskjēn	B5a	verb					W1	pres	OPT	3	pl
zellu	Otf. V	4.26.33	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg

ellu	Otf. V	4.26.33	+	lC	-	*all- <i>iu</i>	C6	adj	N	a/ō	A	pl					
theken	Otf. V	4.26.45	+	k	-	*bakkjēn	B5b	verb					W1	pres	OPT	3	pl
uuentent	Otf. V	4.26.49	+	nC	-	*wand- jand	B5a	verb					W1	pres	IND	3	pl
suuentent	Otf. V	4.26.49	+	nC	-	*swand- jand	B5a	verb					W1	pres	IND	3	pl
brennent	Otf. V	4.26.50	+	nC	-	*brann- jand	B5a	verb					W1	pres	IND	3	pl
terren	Otf. V	4.26.52	+	rC	-	*tarrjan	B5b	inf					W1				
zelita	Otf. V	4.27.3	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
zaltun	Otf. V	4.27.5	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
hanton	Otf. V	4.27.8	-	nC	-	*handi-	B3	noun	F	i	D	pl					
mahtin	Otf. V	4.27.10	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
giuuelti	Otf. V	4.27.11	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
zelita	Otf. V	4.27.12	+	l	+	*talid-	B5b	verb					W1	past	IND	1	sg
mennisgon	Otf. V	4.27.14	+	nC	+	*mann- iska-	D7	adj	M	n	A	pl					
festi	Otf. V	4.27.16	+	sC	+	*fastja-	B1a	adj	N	ja/jō	A	sg					
zelita	Otf. V	4.27.17	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
enti	Otf. V	4.27.19	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
henti	Otf. V	4.27.19	+	nC	+	*handi-	B3	noun	F	i	N	pl					
redina	Otf. V	4.27.23	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
redinu	Otf. V	4.28.8	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
rechen	Otf. V	4.28.13	+	kC	-	*rakkjēn	B5b	verb					W1	pres	OPT	3	pl
zellen	Otf. V	4.28.18	+	lC	-	*talljan	B5b	inf					W1				
redina	Otf. V	4.28.24	+	þ	+	*raþinō-	A	noun	F	a/ō	D	sg					
zelit	Otf. V	4.28.24	+	l	+	*talid	B5b	verb					W1	pres	IND	3	sg
redina	Otf. V	4.29.3	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
mennisgi	Otf. V	4.29.12	+	nC	+	*mann- iska-	D7	noun	F	ī	D	sg					
thekent	Otf. V	4.29.12	+	k	-	*bakkjand	B5b	verb					W1	pres	IND	3	pl
zellu	Otf. V	4.29.25	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	4.29.25	+	lC	-	*all- <i>iu</i>	C6	adj	N	a/ō	A	pl					

redinon	Otf. V	4.29.32	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	D	pl					
giuuarali- liho	Otf. V	4.29.36	+	rC	+	*war-lika-	D3	adverb									
legiti	Otf. V	4.29.37	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
redihaftes	Otf. V	4.29.53	+	ɸ	+	*hraɸi- hafta-	B1b	adj	N	a/ō	G	sg					
emmizigen	Otf. V	4.29.58	+	m	+	*amitīga-	A	adverb									
uuegitun	Otf. V	4.30.6	+	g	+	*wagid-	B5b	verb					W1	past	IND	3	pl
armilichun	Otf. V	4.30.21	-	rC	+	*arm-lika-	D3	adj	N	a/ō	N	pl					
innagili	Otf. V	4.30.30	+	gC	+	*naglī	B5a	verb					W1	pres	IMP	2	sg
redina	Otf. V	4.30.33	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	N	sg					
rafst	Otf. V	4.31.6	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
githenkes	Otf. V	4.31.22	+	nC	-	*ɸankjēs	B5a	verb					W1	pres	OPT	2	sg
mahtin	Otf. V	4.31.27	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
feste	Otf. V	4.31.35	+	sC	-	*fastja-	B1a	noun	N	ja/jō	D	sg					
emmiziger	Otf. V	4.31.36	+	m	+	*amitīga-	A	noun	M	a/ō	N	sg					
thenken	Otf. V	4.32.12	+	nC	-	*ɸankjēm	B5a	verb					W1	pres	OPT	1	pl
armalichun	Otf. V	4.33.3	-	rC	+	*arm-lika-	D3	adj	F	n	G	sg					
zelita	Otf. V	4.33.7	+	l	+	*talid-	B5b	verb					W1	past	IND	1	sg
freuuita	Otf. V	4.33.7	+	w	+	*frawid-	B5b	verb					W1	past	IND	1	sg
egislichaz	Otf. V	4.33.12	+	g	+	*agis-lika-	A	adj	N	a/ō	A	sg					
qualtun	Otf. V	4.33.19	-	lC	-	*kwal(l)id-	B5b	verb					W1	past	IND	3	pl
ezzichu	Otf. V	4.33.19	+	t	+	*atiga-?	A	noun	N	a/ō	D	sg					
drangtun	Otf. V	4.33.19	-	nC	-	*drankid-	B5a	verb					W1	past	IND	3	pl
gizalt	Otf. V	4.33.26	-	lC	-	*tal(l)id-	B5b	ppl					W1				
ziklekit	Otf. V	4.33.37	+	k	+	*klakida-?	B5b	ppl					W1	past			
bithekit	Otf. V	4.33.37	+	k	+	*ɸakida-	B5b	ppl					W1	past			
grebir	Otf. V	4.34.3	+	b	+	*grabir-	A	noun	N	a/ō	N	pl					
redinon	Otf. V	4.34.5	+	ɸ	+	*raɸinōn	A	inf					W2				
grebiron	Otf. V	4.34.5	+	b	+	*grabir-	A	noun	N	a/ō	D	pl					
zellu	Otf. V	4.34.9	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellent	Otf. V	4.34.13	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl

redion	Otf. V	4.34.13	+	þ	+	*raþiōm	A	verb					W2	pres	IND	1	sg
giuueltig	Otf. V	4.34.17	+	lC	+	*wald-īga-	D2	adj	M	a/ō	N	sg					
armilichun	Otf. V	4.34.20	-	rC	+	*arm-lika-	D3	adj	F	n	G	pl					
herizohen	Otf. V	4.35.5	+	r	+	*harja-	B1c	noun	M	n	D	sg					
leggen	Otf. V	4.35.8	+	gC	-	*laggjan	B5b	inf					W1				
legiti	Otf. V	4.35.13	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
engilo	Otf. V	4.35.15	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
legiti	Otf. V	4.35.24	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
gilegiti	Otf. V	4.35.26	+	g	+	*lagidīn	B5b	verb					W1	past	OPT	3	pl
legita	Otf. V	4.35.35	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	sg
felison	Otf. V	4.35.36	+	l	+	*faliso-	A	noun	F	a/ō	D	pl					
armilichen	Otf. V	4.36.1	-	rC	+	*arm-lika-	D3	adj	M	n	G	sg					
herizohen	Otf. V	4.36.4	+	r	+	*harja-	B1c	noun	M	n	D	sg					
zalta	Otf. V	4.36.7	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
nintheken	Otf. V	4.36.11	+	kC	-	*þakkjēn	B5b	verb					W1	pres	OPT	3	pl
zellent	Otf. V	4.36.13	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
festi	Otf. V	4.36.18	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg					
meginu	Otf. V	4.36.20	+	g	+	*magina-	A	noun	N	a/ō	D	sg					
irstantnisse	Otf. V	4.36.22	-	nC	+	*standnissja-	D6	noun	N	ja/jō	D	sg					
kreftig	Otf. V	4.37.15	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
irstantnissi	Otf. V	4.37.23	-	nC	+	*standnissja-	D6	noun	N	ja/jō	N	sg					
engilo	Otf. V	4.37.24	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
spenstin	Otf. V	4.37.27	+	nC	+	*spansti-	B3	noun	F	i	D	pl					
mennisgon	Otf. V	4.37.31	+	nC	+	*mann-iska-	D7	noun	M	n	N	pl					
ginenden	Otf. V	4.37.35	+	nC	-	*nanþjēn	B5a	verb					W1	pres	OPT	3	pl
menden	Otf. V	4.37.35	+	nC	-	*manþjēn	B5a	verb					W1	pres	OPT	3	pl
irstantnisse	Otf. V	4.37.43	-	nC	+	*stand- nissja-	D6	noun	N	ja/jō	D	sg					
freuuida	Otf. V	4.37.45	+	w	+	*frawiþō-	D1	noun	F	a/ō	A	sg					
enti	Otf. V	4.37.46	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
zellu	Otf. V	5.1.1	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg

irueliti	Otf. V	5.1.2	+	l	+	*walid-	B5b	verb					W1	past	OPT	3	sg
nerita	Otf. V	5.1.3	+	r	+	*narid-	B5c	verb					W1	past	IND	3	sg
irretita	Otf. V	5.1.3	+	d	+	*radid-	B5b	verb					W1	past	IND	3	sg
brantin	Otf. V	5.1.11	-	nC	-	*brandidīn	C3	verb					W1	past	OPT	3	pl
irqualtin	Otf. V	5.1.11	-	IC	-	*kwallidīn	C3	verb					W1	past	OPT	3	pl
gizalt	Otf. V	5.1.13	-	IC	-	*tal(l)id-	B5b	ppl					W1	past			
alafesti	Otf. V	5.1.15	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
mannilih	Otf. V	5.1.18	-	nC	+	*mann-līka-	D3	adverb									
henti	Otf. V	5.1.20	+	nC	+	*handi-	B3	noun	F	i	N	pl					
uuoroltenti	Otf. V	5.1.20	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
zellene	Otf. V	5.1.22	+	IC	-	*talljan	B5b	inf					W1				
mannilih	Otf. V	5.1.24	-	nC	+	*mann-līka-	D3	adverb									
uuentit	Otf. V	5.1.25	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg
stentit	Otf. V	5.1.25	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
mannilih	Otf. V	5.1.29	-	nC	+	*mann-līka-	D3	adverb									
ellu	Otf. V	5.1.33	+	IC	-	*all-iu	C6	adj	N	a/ō	N	pl					
zellu	Otf. V	5.1.33	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
mannilih	Otf. V	5.1.36	-	nC	+	*mann-līka-	D3	adverb									
ellu	Otf. V	5.1.39	+	IC	-	*all-iu	C6	adj	N	a/ō	A	pl					
uuoroltenti	Otf. V	5.1.40	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
henti	Otf. V	5.1.40	+	nC	+	*handi-	B3	noun	F	i	D	sg					
mannilih	Otf. V	5.1.41	-	nC	+	*mann-līka-	D3	adverb									
thenkistu	Otf. V	5.1.43	+	nC	+	*pānkis	B5a	verb					W1	pres	IND	2	sg
meg iz	Otf. V	5.1.43	+	g	+	*mag-it	E	verb					PP	pres	IND	3	sg
salta	Otf. V	5.1.46	-	IC	-	*sal(l)id-	B5b	verb					W1	past	IND	3	sg
mannilih	Otf. V	5.1.47	-	nC	+	*mann-līka-	D3	adverb									
endin	Otf. V	5.2.3	+	nC	+	*anpja-	B1a	noun	N	ja/jō	D	pl					
ende	Otf. V	5.2.5	+	nC	-	*anpja-	B1a	noun	N	ja/jō	D	sg					
biredinot	Otf. V	5.2.14	+	ḅ	+	*raḅinōn	A	inf					W2				
bifestit	Otf. V	5.3.5	+	sC	+	*fastida-	B5a	ppl					W1	past			
biuuerre	Otf. V	5.3.8	+	rC	-	*warrjē	B5b	verb					W1	pres	OPT	3	sg

derre	Otf. V	5.3.8	+	rC	-	*darrjē	B5b	verb					W1	pres	OPT	3	sg
festi	Otf. V	5.3.9	+	sC	+	*fastīn-	B1a	noun	F	ī	D	sg					
henti	Otf. V	5.3.10	+	nC	+	*handi-	B3	noun	F	i	N	pl					
enti	Otf. V	5.3.10	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
armalichun	Otf. V	5.3.13	-	rC	+	*arm-līka-	D3	adj	F	a/ō	D	pl					
mende	Otf. V	5.3.16	+	nC	-	*manbjē	B5a	verb					W1	pres	OPT	3	sg
krefti	Otf. V	5.4.1	+	fC	+	*krafti-	B3	noun	F	i	A	pl					
mahti	Otf. V	5.4.1	-	hC	+	*mahti-	B3	noun	F	i	A	pl					
gifreuuita	Otf. V	5.4.4	+	w	+	*frawid-	B5b	verb					W1	past	IND	3	sg
egislichun	Otf. V	5.4.5	+	g	+	*agis-līka-	A	adj	F	a/ō	A	pl					
irdualta	Otf. V	5.4.12	-	IC	-	*dwal(l)id-	B5b	verb					W1	past	IND	3	sg
hebigi	Otf. V	5.4.18	+	b	+	*habīgīn-	D2	noun	F	ī	A	sg					
ketti	Otf. V	5.4.20	+	dC	+	*kaddja-	B1b	noun	N	ja/jō	A	sg					
egiso	Otf. V	5.4.22	+	g	+	*agisan-	A	noun	M	n	N	sg					
kraftlichu	Otf. V	5.4.23	+	fC	+	*kraft-līka-	D3	adverb									
engil	Otf. V	5.4.25	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
uualzta	Otf. V	5.4.26	-	IC	-	*waltid-	B5a	verb					W1	past	IND	3	sg
restin	Otf. V	5.4.29	+	sC	+	*rastīn-	B2	noun	F	ī	D	pl					
farauui	Otf. V	5.4.32	-	rC	+	*farwīn-	B2	noun	F	ī	D	sg					
gigarauui	Otf. V	5.4.32	-	rC	+	*garwīn-	B2	noun	F	ī	N	sg					
engil	Otf. V	5.4.36	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
egiso	Otf. V	5.4.39	+	g	+	*agisan-	A	noun	M	n	N	sg					
hellu	Otf. V	5.4.47	+	IC	-	*halljō-	B1b	noun	F	a/ō	D	sg					
kraftliche	Otf. V	5.4.49	-	fC	+	*kraft-līka-	D3	adj	M	a/ō	A	pl					
zellu	Otf. V	5.4.51	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
kraftlichu	Otf. V	5.4.54	-	fC	+	*kraft-līka-	D3	adverb									
zellen	Otf. V	5.4.60	+	IC	-	*talljan	B5b	inf					W1				
gifreuet	Otf. V	5.4.62	+	wC	-	*frawwjad	B5b	verb					W1	pres	IMP	2	pl
beldida	Otf. V	5.5.9	+	IC	+	*baldijō-	D1	noun	F	a/ō	A	sg					
legitun	Otf. V	5.5.12	+	g	+	*lagid-	B5b	verb					W1	past	IND	3	pl
zelitun	Otf. V	5.5.12	+	l	+	*talid-	B5b	verb					W1	past	IND	1	pl

selidon	Otf. V	5.5.20	+	l	+	*salipō-	D1	noun	F	a/ō	D	pl					
steti	Otf. V	5.5.21	+	d	+	*stadi-	B3	noun	F	i	D	sg					
redion	Otf. V	5.6.6	+	þ	+	*raþiōm	A	verb					W2	pres	IND	1	sg
zalta	Otf. V	5.6.18	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zaltun	Otf. V	5.6.19	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
irstantnissi	Otf. V	5.6.32	-	nC	+	*stand-nissja-	B5b	noun	N	ja/jō	N	sg					
festi	Otf. V	5.6.34	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg					
zahirin	Otf. V	5.6.36	-	hC	+	*tahri-	B3	noun	F	i	D	pl					
nezen	Otf. V	5.6.36	+	tC	-	*nattjan	B5b	inf					W1				
ferti	Otf. V	5.6.46	+	rC	+	*fardi-	B3	noun	F	i	G	sg					
herti	Otf. V	5.6.46	+	rC	+	*hardīn-	B2	noun	F	ī	N	pl					
giuuelti	Otf. V	5.6.60	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
enti	Otf. V	5.6.60	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
enti	Otf. V	5.6.62	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
giuuelti	Otf. V	5.6.63	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
enti	Otf. V	5.6.63	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
anangengi	Otf. V	5.6.64	+	nC	+	*gangja-	B1a	noun	N	ja/jō	A	sg					
irkennit	Otf. V	5.6.68	+	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg
zaltun	Otf. V	5.6.72	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
steti	Otf. V	5.7.2	+	d	+	*stadi-	B3	noun	F	i	D	sg					
engila	Otf. V	5.7.13	+	nC	+	*angila-	A	noun	M	a/ō	A	pl					
firduasbti	Otf. V	5.7.34	-	sC	+	*þwaspidī	C3	verb					W1	past	OPT	3	sg
redinon	Otf. V	5.7.35	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
meg ih	Otf. V	5.7.35	+	g	+	*mag-ik	E	verb					PP	pres	IND	1	sg
zellu	Otf. V	5.7.37	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
gizeliti	Otf. V	5.7.40	+	l	+	*talidī	B5b	verb					W1	past	OPT	3	sg
legiti	Otf. V	5.7.40	+	g	+	*lagidī	B5b	verb					W1	past	OPT	3	sg
klekent	Otf. V	5.7.52	+	kC	-	*klakk-jand?	B5b	verb					W1	pres	IND	3	pl
nanta	Otf. V	5.7.53	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg
alafesti	Otf. V	5.7.54	+	sC	+	*fastja-	B1a	noun	N	ja/jō	D	sg					

mannilih	Otf. V	5.7.54	-	nC	+	*mann-lika-	D3	adverb										
nanta	Otf. V	5.7.55	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg	
kanta	Otf. V	5.7.55	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg	
gizeli	Otf. V	5.7.59	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg	
gizeli	Otf. V	5.7.59	+	l	-	*talī	B5b	verb					W1	pres	IMP	2	sg	
engila	Otf. V	5.8.1	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
resti	Otf. V	5.8.3	+	sC	+	*rastīn-	B2	noun	F	ī	D	sg						
steti	Otf. V	5.8.6	+	d	+	*stadi-	B3	noun	F	i	G	sg						
engil	Otf. V	5.8.7	+	nC	+	*angila-	A	noun	M	a/ō	A	sg						
nennen	Otf. V	5.8.7	+	mC	-	*namnjam	B5a	verb					W1	pres	IND	1	pl	
zellen	Otf. V	5.8.7	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl	
frenkisge	Otf. V	5.8.8	+	nC	+	*frank-iska-	D7	adj	M	a/ō	N	pl						
iruellent	Otf. V	5.8.9	+	lC	-	*walljand	B5b	verb					W1	pres	IND	3	pl	
gizellent	Otf. V	5.8.9	+	lC	-	*talljand	B5b	verb					W1	pres	IND	3	pl	
engila	Otf. V	5.8.11	+	nC	+	*angila-	A	noun	M	a/ō	N	pl						
irstantnisse	Otf. V	5.8.12	+	nC	+	*stand-nissja-	D6	noun	N	ja/jō	D	sg						
redina	Otf. V	5.8.13	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg						
nanta	Otf. V	5.8.29	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg	
zalta	Otf. V	5.8.29	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg	
nennist	Otf. V	5.8.30	+	mC	+	*namnis	B5a	verb					W1	pres	IND	2	sg	
irkanta	Otf. V	5.8.33	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg	
nanta	Otf. V	5.8.33	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg	
irkanta	Otf. V	5.8.42	-	nC	-	*kannid-	B5a	verb					W1	past	IND	3	sg	
nanta	Otf. V	5.8.42	-	mC	-	*namnid-	B5a	verb					W1	past	IND	3	sg	
redinon	Otf. V	5.8.52	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg	
henti	Otf. V	5.8.55	+	nC	+	*handi-	B3	noun	F	i	D	sg						
giscankt	Otf. V	5.8.55	-	nC	-	*skankid-	B5a	verb					W1	past	IND	3	sg	
enti	Otf. V	5.8.55	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg						
freuuida	Otf. V	5.8.58	+	w	+	*frawiþō-	D1	noun	F	a/ō	A	sg						
gisellon	Otf. V	5.9.4	+	lC	-	*salljan-	B1b	noun	M	jan/jōn	N	pl						

armalichun	Otf. V	5.9.5	-	rC	+	*arm-lika-	D3	adj	F	n	A	pl					
ferti	Otf. V	5.9.10	+	rC	+	*fardi-	B3	noun	F	i	D	sg					
redina	Otf. V	5.9.13	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	N	sg					
unfreuuida	Otf. V	5.9.13	+	w	+	*frawiɸō-	D1	noun	F	a/ō	N	sg					
elilente	Otf. V	5.9.17	+	l	+	*ali-	B3	noun	N	ja/jō	D	sg					
elilente	Otf. V	5.9.17	+	nC	-	*landja-	B1a	noun	N	ja/jō	D	sg					
ellu	Otf. V	5.9.18	+	IC	-	*all-iu	C6	adj	F	a/ō	N	sg					
zaltun	Otf. V	5.9.22	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
mahtig	Otf. V	5.9.25	-	hC	+	*mahṯiga-	D2	adj	M	a/ō	N	sg					
kreftig	Otf. V	5.9.26	+	fC	+	*krafṯiga-	D2	adj	M	a/ō	N	sg					
zellen	Otf. V	5.9.27	+	IC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
irqualtun	Otf. V	5.9.29	-	IC	-	*kwal(l)id-	B5b	verb					W1	past	IND	3	pl
firsaltun	Otf. V	5.9.29	-	IC	-	*sal(l)id-	B5b	verb					W1	past	IND	3	pl
enti	Otf. V	5.9.36	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
gizelitun	Otf. V	5.9.37	+	l	+	*talid-	B5b	verb					W1	past	IND	1	pl
redinon	Otf. V	5.9.39	+	ɸ	+	*raɸinōn	A	inf					W2				
giferton	Otf. V	5.9.40	+	rC	-	*fardjan-	B1a	noun	M	jan/jōn	D	pl					
zellen	Otf. V	5.9.42	+	IC	-	*talljēnd	B5b	verb					W1	pres	OPT	3	pl
nennent	Otf. V	5.9.43	+	mC	-	*namnjēnd	B5b	verb					W1	pres	OPT	3	pl
zelitun	Otf. V	5.9.45	+	l	+	*talid-	B5b	verb					W1	past	IND	3	pl
redinon	Otf. V	5.9.49	+	ɸ	+	*raɸinōn	A	inf					W2				
zellen	Otf. V	5.9.50	+	IC	-	*talljan	B5b	inf					W1				
zelita	Otf. V	5.9.52	+	l	+	*talid-	B5b	verb					W1	past	IND	3	sg
zalt	Otf. V	5.9.53	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
redina	Otf. V	5.9.54	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	A	pl					
zalt	Otf. V	5.9.55	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
selidon	Otf. V	5.10.2	+	l	+	*salijō-	D1	noun	F	a/ō	D	pl					
redinon	Otf. V	5.10.2	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	D	pl					
gizalt	Otf. V	5.10.12	-	IC	-	*tal(l)ida-	B5b	ppl					W1	past			
zaltun	Otf. V	5.10.32	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	pl
ferti	Otf. V	5.10.36	+	rC	+	*fardi-	B3	noun	F	i	D	sg					

bisparten	Otf. V	5.11.3	-	rC	-	*sparrida-	B5a	ppl					W1	past			
redinon	Otf. V	5.11.8	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
festi	Otf. V	5.11.14	+	sC	+	*fastja-	B5a	adj	N	ja/jō	N	sg					
festi	Otf. V	5.11.18	+	sC	+	*fastja-	B5a	adj	N	ja/jō	N	sg					
redina	Otf. V	5.11.20	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
freuuida	Otf. V	5.11.20	+	w	+	*frawiþō-	D1	noun	F	a/ō	A	sg					
henti	Otf. V	5.11.22	+	nC	+	*handi-	B3	noun	F	i	D	sg					
megi	Otf. V	5.11.30	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
hanton	Otf. V	5.11.32	-	nC	-	*handi-	B3	noun	F	i	D	pl					
drut- mennisgon	Otf. V	5.11.35	+	nC	-	*mann-iska-	D7	adj	M	n	A	pl					
restin	Otf. V	5.11.38	+	sC	+	*rastīn-	B2	noun	F	ī	D	pl					
gizalta	Otf. V	5.11.46	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
mennisgon	Otf. V	5.11.48	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
redina	Otf. V	5.12.4	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
zellen	Otf. V	5.12.6	+	lC	-	*talljam	B5b	verb					W1	pres	IND	1	pl
bisparten	Otf. V	5.12.14	-	rC	-	*sparrida-	B5a	ppl					W1	past			
gizellen	Otf. V	5.12.16	+	lC	-	*talljan	B5b	inf					W1				
megin	Otf. V	5.12.17	+	g	+	*magīm	C4a	verb					PP	pres	OPT	1	pl
irkennen	Otf. V	5.12.18	+	nC	-	*kannjan	B5a	inf					W1				
mannilih	Otf. V	5.12.19	-	nC	+	*mann-līka-	D3	adverb									
iruuartnissi	Otf. V	5.12.22	-	rC	+	*ward- nissja-	D6	noun	N	ja/jō	A	sg					
ungimerrit	Otf. V	5.12.26	+	rC	+	*marrida-	B5a	ppl					W1	past			
bisperrit	Otf. V	5.12.26	+	rC	+	*sparrida-	B5a	ppl					W1	past			
redinon	Otf. V	5.12.24	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
redinon	Otf. V	5.12.40	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
zellu	Otf. V	5.12.43	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	5.12.43	+	lC	-	*all- iu	C6	adj	N	a/ō	N	pl					
mennisgo	Otf. V	5.12.46	+	nC	+	*mann-iska-	D7	adj	M	n	N	sg					
geginuuertig	Otf. V	5.12.61	+	rC	+	*wardīga-	D2	adj	M	a/ō	N	sg					
santa	Otf. V	5.12.62	-	nC	-	*sandid-	B5a	verb					W1	past	IND	3	sg

geginuerti	Otf. V	5.12.64	+	rC	+	*wardīn-	B2	noun	F	ī	A	sg					
henti	Otf. V	5.12.64	+	nC	+	*handi-	B3	noun	F	i	D	sg					
zellu	Otf. V	5.12.73	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
redinon	Otf. V	5.12.74	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
mennisgono	Otf. V	5.12.75	+	nC	+	*mann-iska-	D7	adj	M	n	G	pl					
kreftin	Otf. V	5.12.79	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
redinon	Otf. V	5.12.82	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
irzalt	Otf. V	5.12.86	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
ente	Otf. V	5.12.87	+	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg					
zalt	Otf. V	5.12.89	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
zalta	Otf. V	5.12.94	-	IC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
irkennen	Otf. V	5.12.95	+	nC	-	*kannjan	B5a	inf					W1				
emmizen	Otf. V	5.12.96	+	mC	+	*amitīga-	A	adverb									
zell	Otf. V	5.13.1	+	IC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
gisellon	Otf. V	5.13.4	+	IC	-	*salljan-	B1b	noun	M	jan/jōn	D	pl					
nezzin	Otf. V	5.13.10	+	tC	-	*nattja-	B1b	noun	N	ja/jō	D	pl					
zelita	Otf. V	5.13.12	+	l	+	*talid-	B5b	verb					W1	past	IND	1	sg
zeliti	Otf. V	5.13.14	+	l	+	*talid-	B5b	verb					W1	past	OPT	3	sg
nezzi	Otf. V	5.13.15	+	tC	+	*nattja-	B1b	noun	N	ja/jō	A	sg					
menigi	Otf. V	5.13.16	+	n	+	*manigīn-	A	noun	N	ī	N	sg					
uzlente	Otf. V	5.13.18	+	nC	-	*landja-	B1a	noun	N	ja/jō	D	sg					
redinon	Otf. V	5.13.20	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
zellent	Otf. V	5.13.20	+	IC	-	*talljand	B5b	verb					W1	pres	IND	3	pl
nezzi	Otf. V	5.13.21	+	tC	+	*nattja-	B1b	noun	N	ja/jō	N	sg					
feriente	Otf. V	5.13.27	+	r	+	*farjand-	B5c	ppl					W1				
nezzi	Otf. V	5.13.30	+	tC	+	*nattja-	B1b	noun	N	ja/jō	A	sg					
henti	Otf. V	5.13.32	+	nC	+	*handi-	B3	noun	F	i	D	sg					
frenkisgero	Otf. V	5.14.3	+	nC	+	*frank-iska-	D7	adj	N	n	G	pl					
irrekenne	Otf. V	5.14.4	+	kC	-	*rakkjan	B5b	inf					W1				
gizellen	Otf. V	5.14.5	+	IC	-	*talljan	B5b	inf					W1				
festi	Otf. V	5.14.7	+	sC	+	*fastīn-	B2	noun	F	ī	A	sg					

ferit	Otf. V	5.14.10	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
mahtin	Otf. V	5.14.13	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
festi	Otf. V	5.14.18	+	sC	+	*fastīn-	B2	noun	F	ī	D	sg					
nezzi	Otf. V	5.14.19	+	tC	+	*nattja-	B1b	noun	N	ja/jō	N	sg					
menigi	Otf. V	5.14.20	+	n	+	*manigīn-	A	noun	F	ī	A	sg					
nezzi	Otf. V	5.14.22	+	tC	+	*nattja-	B1b	noun	N	ja/jō	N	sg					
rechit	Otf. V	5.14.27	+	k	+	*rakid	B5b	verb					W1	pres	IND	3	sg
inthekit	Otf. V	5.14.27	+	k	+	*pakid	B5b	verb					W1	pres	IND	3	sg
zalta	Otf. V	5.15.16	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
lembir	Otf. V	5.15.20	+	mC	+	*lambiz-	A	noun	N	a/ō	A	pl					
zalti	Otf. V	5.15.26	-	lC	+	*tal(l)idī	B5b	verb					W1	past	OPT	3	sg
zeli	Otf. V	5.15.27	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg
redina	Otf. V	5.15.33	+	ḅ	+	*raḅinō-	A	noun	F	a/ō	A	sg					
zalta	Otf. V	5.15.33	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	1	sg
thenist	Otf. V	5.15.41	+	n	+	*ḅanis	B5b	verb					W1	pres	IND	2	sg
henti	Otf. V	5.15.41	+	nC	+	*handi-	B3	noun	F	i	A	pl					
gengist	Otf. V	5.15.43	+	nC	+	*gangis	C2	verb					S7	pres	IND	2	sg
zalta	Otf. V	5.15.45	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
retita	Otf. V	5.16.3	+	d	+	*radid-	B5b	verb					W1	past	IND	3	sg
hellu	Otf. V	5.16.3	+	lC	-	*halljō-	B1b	noun	F	ja/jō	D	sg					
gistreuuita	Otf. V	5.16.3	+	w	+	*strawida-	B5b	ppl					W1	past			
redinon	Otf. V	5.16.5	+	ḅ	+	*raḅinō-	A	noun	F	a/ō	D	pl					
rafst	Otf. V	5.16.12	-	fC	-	*rafsid-	B5a	verb					W1	past	IND	3	sg
herti	Otf. V	5.16.13	+	rC	+	*hardja-	B1a	adj	N	ja/jō	N	sg					
zalta	Otf. V	5.16.15	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
festi	Otf. V	5.16.16	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
zalta	Otf. V	5.16.17	-	lC	-	*tal(l)id-	B5b	verb					W1	past	IND	3	sg
henti	Otf. V	5.16.20	+	nC	+	*handi-	B3	noun	F	i	D	sg					
ellu	Otf. V	5.16.20	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
woroltenti	Otf. V	5.16.20	+	nC	+	*andja-	B5a	noun	N	ja/jō	N	pl					
senten	Otf. V	5.16.21	+	nC	-	*sandjan	B5a	inf					W1				

uuenten	Otf. V	5.16.21	+	nC	-	*wandjand	B5a	inf					W1				
gizellet	Otf. V	5.16.22	+	lC	-	*talljad	B5b	verb					W1	pres	IMP	2	pl
ellu	Otf. V	5.16.24	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
gizellet	Otf. V	5.16.25	+	lC	-	*talljad	B5b	verb					W1	pres	IMP	2	pl
geginuerti	Otf. V	5.16.25	+	rC	+	*wardīn-	B2	noun	F	ī	N	sg					
herti	Otf. V	5.16.26	+	rC	+	*hardīn-	B2	noun	F	ī	A	sg					
gizalte	Otf. V	5.16.40	-	lC	-	*tal(l)ida-	B5b	ppl					W1	past			
bettirison	Otf. V	5.16.40	+	dC	+	*baddja-	B1b	noun	M	n	N	pl					
ginennet	Otf. V	5.16.43	+	mC	-	*namnjad	B5b	verb					W1	pres	IND	2	pl
mahtin	Otf. V	5.17.3	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
ersezen	Otf. V	5.17.4	+	tC	+	*sattjan	B5b	inf					W1				
mahti	Otf. V	5.17.9	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
krefti	Otf. V	5.17.9	+	fC	+	*krafti-	B3	noun	F	i	N	pl					
redinon	Otf. V	5.17.10	+	þ	+	*raþinō-	A	noun	F	a/ō	D	pl					
kreftigera	Otf. V	5.17.12	+	fC	+	*kraftīga-	D2	adj	F	a/ō	D	sg					
henti	Otf. V	5.17.12	+	nC	+	*handi-	B3	noun	F	i	D	sg					
ellu	Otf. V	5.17.12	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
woroltenti	Otf. V	5.17.12	+	nC	+	*andja-	B5a	noun	N	ja/jō	A	pl					
ferto	Otf. V	5.17.24	+	rC	-	*fardi-	B3	noun	F	i	G	pl					
ellu	Otf. V	5.17.27	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
gistelli	Otf. V	5.17.29	+	lC	+	*stallja-	B1a	noun	N	ja/jō	A	sg					
stetigon	Otf. V	5.17.31	+	d	+	*stadīga-	D2	adj	M	n	A	sg					
nennenne	Otf. V	5.17.33	+	mC	-	*namnjan	B5a	inf					W1				
obanentig	Otf. V	5.17.40	+	nC	+	*andīga-	D2	adj	N	a/ō	A	sg					
irthenkit	Otf. V	5.18.16	+	k	+	*þankid	B5a	verb					W1	pres	IND	3	sg
hebigaz	Otf. V	5.19.2	+	b	+	*habīga-	D2	adj	N	a/ō	N	sg					
zellu	Otf. V	5.19.3	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
zellenne	Otf. V	5.19.7	+	lC	-	*talljan	B5b	inf					W1				
mennisgon	Otf. V	5.19.11	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
zellenne	Otf. V	5.19.13	+	lC	-	*talljan	B5b	inf					W1				
biuuerien	Otf. V	5.19.14	+	r	+	*warjēn	B5c	verb					W1	pres	OPT	3	pl

ginerien	Otf. V	5.19.14	+	r	+	*narjēn	B5c	verb					W1	pres	OPT	3	pl
megi	Otf. V	5.19.16	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
biredinot	Otf. V	5.19.17	+	þ	+	*raþinōda-	A	ppl					W2	past			
helliuuizes	Otf. V	5.19.18	+	lC	+	*halljō-	B1b	noun	N	ja/jō	G	sg					
mennisgon	Otf. V	5.19.19	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
zelit	Otf. V	5.19.22	+	l	+	*talid	B5b	verb					W1	pres	IND	3	sg
engilliches	Otf. V	5.19.25	+	nC	+	*angila-	A	adj	M	a/ō	G	sg					
zellen	Otf. V	5.19.30	+	lC	-	*talljan	B5b	inf					W1				
redina	Otf. V	5.19.31	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
threuit	Otf. V	5.19.31	+	w	+	*prawid	B5b	verb					W1	pres	IND	3	sg
giuuelti	Otf. V	5.19.35	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
megi	Otf. V	5.19.38	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
mennisgon	Otf. V	5.19.41	+	nC	+	*mann-iska-	D7	adj	M	n	D	pl					
zellenne	Otf. V	5.19.43	+	lC	-	*talljan	B5b	inf					W1				
biuuerien	Otf. V	5.19.44	+	r	+	*warjēn	B5c	verb					W1	pres	OPT	3	pl
ginerien	Otf. V	5.19.44	+	r	+	*narjēn	B5c	verb					W1	pres	OPT	3	pl
uuebbi	Otf. V	5.19.46	+	bC	+	*wabbja-	B1b	noun	N	ja/jō	N	sg					
mennisgon	Otf. V	5.19.55	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
mennisgon	Otf. V	5.19.63	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
zellenne	Otf. V	5.19.65	+	lC	-	*talljan	B5b	inf					W1				
biuuerien	Otf. V	5.19.66	+	r	+	*warjēn	B5c	verb					W1	pres	OPT	3	pl
ginerien	Otf. V	5.19.66	+	r	+	*narjēn	B5c	verb					W1	pres	OPT	3	pl
gizellen	Otf. V	5.20.1	+	lC	-	*talljan	B5b	inf					W1				
egislicha	Otf. V	5.20.1	+	g	+	*agis-līka-	A	adj	N	n	A	sg					
egislih	Otf. V	5.20.4	+	g	+	*agis-līka-	A	adj	N	a/ō	N	sg					
krefti	Otf. V	5.20.6	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
engilo	Otf. V	5.20.6	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
giscefti	Otf. V	5.20.6	+	fC	+	*skafti-	B3	noun	F	i	D	sg					
hebigi	Otf. V	5.20.7	+	b	+	*habīgīn-	D7	noun	F	ī	D	sg					
mennisgon	Otf. V	5.20.8	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
zellen	Otf. V	5.20.11	+	lC	-	*talljan	B5b	inf					W1				

zellu	Otf. V	5.20.14	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	5.20.14	+	lC	-	*all-ju	C6	adj	F	a/ō	N	sg					
giuueltig	Otf. V	5.20.18	+	lC	+	*wald-īga-	D7	adj	M	a/ō	N	pl					
ferit	Otf. V	5.20.19	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
engilo	Otf. V	5.20.19	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
menigi	Otf. V	5.20.19	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
mennisgon	Otf. V	5.20.21	+	nC	+	*mann-iska-	D7	adj	M	n	N	pl					
falauuisgu	Otf. V	5.20.27	-	lC	+	*falw-iskō-	D7	noun	F	a/ō	D	sg					
heltit	Otf. V	5.20.32	+	lC	+	*haldid	C2	verb					S7	pres	IND	3	sg
uueltit	Otf. V	5.20.32	+	lC	+	*waldid	C2	verb					S7	pres	IND	3	sg
rechen	Otf. V	5.20.34	+	kC	-	*rakkjan	B5b	inf					W1				
menigi	Otf. V	5.20.35	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
emmizigen	Otf. V	5.20.50	+	m	+	*amitīga-	A	adverb									
zellu	Otf. V	5.20.53	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	5.20.53	+	lC	-	*all-ju	C6	adj	F	a/ō	N	sg					
sezzi	Otf. V	5.20.55	+	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
biuuenkent	Otf. V	5.20.58	+	nC	-	*wankjēnd	B5a	verb					W1	pres	OPT	3	pl
uuentent	Otf. V	5.20.61	+	nC	-	*wandjēnd	B5a	verb					W1	pres	OPT	3	pl
anagengi	Otf. V	5.20.70	+	nC	+	*gangi-	B3	noun	M	i	D	sg					
unmahti	Otf. V	5.20.87	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
elilenti	Otf. V	5.20.88	+	l	+	*ali-	B3	noun	N	ja/jō	N	sg					
elilenti	Otf. V	5.20.88	+	nC	+	*landja-	B1a	noun	N	ja/jō	N	sg					
zellen	Otf. V	5.20.92	+	lC	-	*talljan	B5a	inf					W1				
egislichen	Otf. V	5.20.96	+	g	+	*agis-līka-	A	adj	N	a/ō	D	pl					
egislichen	Otf. V	5.20.97	+	g	+	*agis-līka-	A	adj	F	a/ō	D	pl					
garauuaz	Otf. V	5.20.101	-	rC	-	*garwja-	B1a	adj	N	ja/jō	N	sg					
zalta	Otf. V	5.20.104	-	lC	-	*tal(l)ida-	B5b	verb					W1	past	IND	1	sg
uuangta	Otf. V	5.20.109	-	nC	-	*wangida-	B5a	verb					W1	past	IND	3	sg
inzellen	Otf. V	5.20.111	+	lC	-	*talljan	B5b	inf					W1				
redina	Otf. V	5.20.112	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
egislih	Otf. V	5.21.2	+	g	+	*agis-līka-	A	adj	N	a/ō	N	pl					

refsit	Otf. V	5.21.3	+	fC	+	*rafsid	B5a	verb					W1	pres	IND	3	sg
selidono	Otf. V	5.21.7	+	l	+	*saliþō-	D1	noun	F	a/ō	G	pl					
thekit	Otf. V	5.21.9	+	kC	+	*þak(k)id	B5b	verb					W1	pres	IND	4	sg
hellu	Otf. V	5.21.12	+	lC	-	*halljō-	B1b	noun	F	ja/jō	D	sg					
bigrebit	Otf. V	5.21.13	+	b	+	*grabid	C2	verb					S6	pres	IND	3	sg
zaltun	Otf. V	5.21.19	-	lC	-	*tal(l)ida-	B5b	verb					W1	past	IND	1	pl
hellipina	Otf. V	5.21.20	+	lC	+	*halljō-	B1b	noun	F	a/ō	G	sg					
henti	Otf. V	5.21.22	+	nC	+	*handi-	B3	noun	F	i	D	sg					
enti	Otf. V	5.21.22	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
gizellen	Otf. V	5.21.24	+	lC	-	*talljan	B5b	inf					W1				
ferit	Otf. V	5.22.3	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
festa	Otf. V	5.22.12	+	sC	-	*fastja-	B1a	adj	M	ja/jō	N	pl					
irzellen	Otf. V	5.22.13	+	lC	-	*talljan	B1b	inf					W1				
redinon	Otf. V	5.23.1	+	þ	+	*raþinōn	A	inf					W2				
zellen	Otf. V	5.23.9	+	lC	-	*talljan	B5b	inf					W1				
gizellen	Otf. V	5.23.15	+	lC	-	*talljan	B5b	inf					W1				
zellen	Otf. V	5.23.18	+	lC	-	*talljan	B5b	inf					W1				
redina	Otf. V	5.23.18	+	þ	+	*raþinōn	A	noun	F	a/ō	A	sg					
mahtin	Otf. V	5.23.27	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
iruellent	Otf. V	5.23.32	+	lC	-	*walljand	B5b	verb					W1	pres	IND	3	pl
freuuen	Otf. V	5.23.46	+	wC	-	*frawwjan	B5b	inf					W1				
elte	Otf. V	5.23.52	+	lC	-	*aldjē	B5a	verb					W1	pres	OPT	3	sg
ellu	Otf. V	5.23.53	+	lC	-	*all-iu	C6	adj	F	a/ō	N	sg					
zellu	Otf. V	5.23.53	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
mahtin	Otf. V	5.23.57	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
brennennes	Otf. V	5.23.66	+	nC	-	*brannjan	B5a	inf					W1				
emimizigen	Otf. V	5.23.73	+	m	+	*amitīga-	A	adverb									
ummahti	Otf. V	5.23.77	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
derrent	Otf. V	5.23.78	+	rC	-	*darrjand	B5b	verb					W1	pres	IND	3	pl
gizaltun	Otf. V	5.23.89	-	lC	-	*tal(l)ida-	B5b	verb					W1	past	IND	3	pl
henti	Otf. V	5.23.100	+	nC	+	*handi-	B3	noun	F	i	D	sg					

elilenti	Otf. V	5.23.100	+	l	+	*ali-	B3	noun	N	ja/jō	A	sg					
elilenti	Otf. V	5.23.100	+	nC	+	*landja-	B1a	noun	N	ja/jō	A	sg					
emmizen	Otf. V	5.23.109	+	m	+	*amitīga-	A	adverb									
irzelle	Otf. V	5.23.127	+	lC	-	*talljē	B5b	verb					W1	pres	OPT	3	sg
ellu	Otf. V	5.23.128	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
mahtin	Otf. V	5.23.129	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
elti	Otf. V	5.23.140	+	lC	+	*aldīn-	B2	noun	F	ī	N	sg					
inselzit	Otf. V	5.23.141	+	lC	+	*saltid	C2	verb					S7	pres	IND	3	sg
gihelzit	Otf. V	5.23.141	+	lC	+	*haltid	B5a	verb					W1	pres	IND	3	sg
githenkit	Otf. V	5.23.155	+	nC	+	*bankid	B5a	verb					W1	pres	IND	3	sg
emmizigen	Otf. V	5.23.155	+	m	+	*amitīga-	A	adverb									
skrenkit	Otf. V	5.23.155	+	nC	+	*skrankid	B5a	verb					W1	pres	IND	3	sg
emmizen	Otf. V	5.23.156	+	m	+	*amitīga-	A	adverb									
thenkent	Otf. V	5.23.166	+	nC	-	*bankjand	B5a	verb					W1	pres	IND	3	pl
mahtin	Otf. V	5.23.171	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
irzellen	Otf. V	5.23.176	+	lC	-	*talljan	B5b	inf					W1				
engilo	Otf. V	5.23.179	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
mahtin	Otf. V	5.23.183	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
irzellen	Otf. V	5.23.189	+	lC	-	*talljan	B5b	inf					W1				
redinon	Otf. V	5.23.190	+	ɸ	+	*raɸinōn	A	inf					W2				
freuuidon	Otf. V	5.23.190	+	w	+	*frawiɸō-	D1	noun	F	a/ō	D	pl					
irredinon	Otf. V	5.23.191	+	ɸ	+	*raɸinōn	A	inf					W2				
mahtin	Otf. V	5.23.195	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
hanton	Otf. V	5.23.201	-	nC	-	*handi-	B3	noun	F	i	D	pl					
mahtin	Otf. V	5.23.205	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
zalta	Otf. V	5.23.212	-	lC	-	*tal(l)ida-	B5b	verb					W1	past	IND	1	sg
mahtin	Otf. V	5.23.219	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
enti	Otf. V	5.23.224	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
zente	Otf. V	5.23.225	+	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg					
redina	Otf. V	5.23.228	+	ɸ	+	*raɸinō-	A	noun	F	a/ō	A	sg					
mahtin	Otf. V	5.23.231	-	hC	+	*mahti-	B3	noun	F	i	D	pl					

iruellen	Otf. V	5.23.235	+	lC	-	*walljand	B5b	inf					W1				
irzellen	Otf. V	5.23.235	+	lC	-	*talljand	B5b	inf					W1				
nirzelitun	Otf. V	5.23.237	+	l	+	*talida-	B5b	verb					W1	past	IND	3	pl
gizellen	Otf. V	5.23.240	+	lC	-	*talljan	B5b	inf					W1				
mahtin	Otf. V	5.23.241	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
freuui	Otf. V	5.23.246	+	w	+	*frawīn-	B2	noun	F	ī	N	sg					
gilezze	Otf. V	5.23.247	+	lC	-	*lattjē	B5b	verb					W1	pres	OPT	3	sg
gihenge	Otf. V	5.23.249	+	nC	-	*hangjē	B5a	verb					W1	pres	OPT	3	sg
mahtin	Otf. V	5.23.255	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
erbe	Otf. V	5.23.259	+	rC	-	*arbja-	B1a	noun	N	ja/jō	D	sg					
hella	Otf. V	5.23.265	+	lC	-	*halljō-	B1b	noun	F	ja/jō	N	sg					
elichor	Otf. V	5.23.266	+	l	+	*ali-	B3	adverb									
enti	Otf. V	5.23.268	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
mahtin	Otf. V	5.23.269	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
elichor	Otf. V	5.23.274	+	l	+	*ali-	B3	adverb									
redina	Otf. V	5.23.282	+	ḃ	+	*raḃinō-	A	noun	F	a/ō	A	sg					
freuuida	Otf. V	5.23.282	+	w	+	*frawiḃō-	D1	noun	F	a/ō	A	sg					
mahtin	Otf. V	5.23.283	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
mahtin	Otf. V	5.23.290	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
zellen	Otf. V	5.23.292	+	lC	-	*talljan	B5b	inf					W1				
engilo	Otf. V	5.23.293	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
mahtin	Otf. V	5.23.295	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
mahtin	Otf. V	5.24.1	-	hC	+	*mahti-	B3	noun	F	i	D	pl					
mahti	Otf. V	5.24.9	-	hC	+	*mahti-	B3	noun	F	i	N	pl					
enti	Otf. V	5.24.10	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
henti	Otf. V	5.24.10	+	nC	+	*handi-	B3	noun	F	i	D	sg					
irstantnissi	Otf. V	5.24.11	-	nC	+	*stand-nissja-	D6	noun	N	ja/jō	N	sg					
uuelst	Otf. V	5.24.13	+	lC	+	*waldis	C2	verb					S7	pres	IND	2	sg
kreftin	Otf. V	5.24.20	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
geginuerti	Otf. V	5.24.21	+	rC	+	*wardīn-	B2	noun	F	ī	A	sg					

enti	Otf. V	5.25.4	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
ferienti	Otf. V	5.25.4	+	r	+	*farjand-	B5b	ppl					W1	pres			
feste	Otf. V	5.25.6	+	sC	-	*fastja-	B1a	noun	N	ja/jō	D	sg					
gireste	Otf. V	5.25.6	+	sC	-	*rastjē	B5a	verb					W1	pres	OPT	3	sg
ente	Otf. V	5.25.7	+	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg					
gengit	Otf. V	5.25.17	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
redinon	Otf. V	5.25.19	+	þ	+	*raþinōm	A	verb					W2	pres	IND	1	sg
giuuelti	Otf. V	5.25.20	+	lC	+	*waldi-	B3	noun	F	i	D	sg					
enti	Otf. V	5.25.20	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg					
iruuellen	Otf. V	5.25.26	+	lC	-	*walljēn	B5b	verb					W1	pres	OPT	3	pl
zellen	Otf. V	5.25.26	+	lC	-	*walljēn	B5b	verb					W1	pres	OPT	3	pl
mahti	Otf. V	5.25.27	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
zellu	Otf. V	5.25.28	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg
ellu	Otf. V	5.25.28	+	lC	-	*all-iu	C6	adj	N	a/ō	A	pl					
zellet	Otf. V	5.25.30	+	lC	-	*talljad	B5b	verb					W1	pres	IMP	2	pl
argi	Otf. V	5.25.32	-	rC	+	*argīn-	B2	noun	F	ī	G	sg					
redion	Otf. V	5.25.33	+	þ	+	*raþiō-	A	noun	F	a/ō	D	pl					
meg ih	Otf. V	5.25.36	+	g	+	*mag-ik	E	verb					PP	pres	IND	1	sg
scerre	Otf. V	5.25.38	+	rC	-	*skarrjē	B5b	verb					W1	pres	OPT	3	sg
merre	Otf. V	5.25.38	+	rC	-	*marrjē	B5a	verb					W1	pres	OPT	3	sg
redina	Otf. V	5.25.43	+	þ	+	*raþinō-	A	noun	F	a/ō	A	sg					
bezira	Otf. V	5.25.45	+	t	+	*batiran-	C5	adj	N	n	N	sg					
redina	Otf. V	5.25.51	+	þ	+	*raþinō-	A	noun	F	a/ō	N	sg					
irkennist	Otf. V	5.25.55	+	nC	+	*kannis	B5a	verb					W1	pres	IND	2	sg
rechen	Otf. V	5.25.66	+	kC	-	*rakkjan	B5b	inf					W1				
theken	Otf. V	5.25.66	+	kC	-	*þakkjēn	B5b	verb					W1	pres	OPT	3	pl
bihellen	Otf. V	5.25.68	+	lC	-	*halljēn	B5b	verb					W1	pres	OPT	3	pl
redinon	Otf. V	5.25.73	+	þ	+	*raþinōn	A	verb					W2	pres	OPT	3	pl
eltent	Otf. V	5.25.76	+	lC	-	*aldjand	B5a	verb					W1	pres	IND	3	pl
ellu	Otf. V	5.25.79	+	lC	-	*all-iu	C6	adj	N	a/ō	N	pl					
zellu	Otf. V	5.25.79	+	lC	-	*tallju	B5b	verb					W1	pres	IND	1	sg

bethekitaz	Otf. V	5.25.86	+	k	+	*pakida-	B5b	ppl					W1	past				
beziron	Otf. V	5.25.87	+	t	+	*batiran-	C5	adj	M	n	D	pl						
henti	Otf. V	5.25.92	+	nC	+	*handi-	B3	noun	F	i	D	sg						
enti	Otf. V	5.25.92	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg						
engilon	Otf. V	5.25.96	+	nC	+	*angila-	A	noun	M	a/ō	D	pl						
menthenti	Otf. V	5.25.100	+	nC	-	*manþjand-	B5a	ppl					W1	pres				
ensti	Otf. V	5.25.101	+	nC	+	*ansti-	B3	noun	F	i	D	sg						
giuuelti	Otf. V	5.25.102	+	lC	+	*walddi-	B3	noun	F	i	D	sg						
enti	Otf. V	5.25.102	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg						
engilon	Otf. V	5.25.104	+	nC	+	*angila-	A	noun	M	a/ō	D	pl						
moatscaffi	Ab K	4.10	-	p	+	*skapi-	B3	noun	F	i	D	sg						
friuntscaffi	Ab K	4.11	-	p	+	*skapi-	B3	noun	F	i	D	sg						
farsahchit	Ab K	4.19	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg	
aruuaskit	Ab K	5.8	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg	
thouuahit	Ab K	5.10	-	h	+	*þwahid	C2	verb					S6	pres	IND	3	sg	
cafastinod	Ab K	5.12	-	sC	+	*fastinōd	A	verb					W2	pres	IND	3	sg	
farslahit	Ab K	5.18	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
farspanit	Ab K	5.19	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg	
chaldi	Ab K	6.12	-	lC	+	*kaldīn-	B2	noun	F	ī	N	sg						
angidha	Ab K	6.13	-	nC	+	*angiþō-	D1	noun	F	a/ō	N	sg						
hardiro	Ab K	7.12	-	rC	+	*hardira-	C5	adj	M	n	N	sg						
mandhendi	Ab K	7.15	-	nC	-	*manþjand-	B5a	ppl					W1	pres				
strengi	Ab K	7.18	+	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg						
camahch- idha	Ab K	8.1	-	k	+	*makiþō-	D1	noun	F	a/ō	N	sg						
salihus	Ab K	8.12	-	l	+	*sali-hūsa-	B3	noun	N	a/ō	N	sg						
cafastinot	Ab K	8.25	-	sC	+	*fastinōda-	A	ppl					W2	past				
fastinodhe	Ab K	9.9	-	sC	+	*fastinōda-	A	noun	M	a/ō	D	sg						
analagde	Ab K	9.15	-	g	-	*lagida-	B5b	ppl					W1	past				
souuaridha	Ab K	9.16	-	r	+	*swariþō-	D1	noun	F	a/ō	N	sg						
sarfida	Ab K	10.1	-	rC	+	*skarpīþō-	D1	noun	F	a/ō	N	sg						

salauui	Ab K	10.10	-	IC	+	*salwja-	B1a	adj	N	ja/jō	N	sg					
uuassi	Ab K	11.6	-	sC	+	*hwassīn-	B2	noun	F	ī	N	sg					
ende	Ab K	11.12	+	nC	-	*andja-	B5a	noun	N	ja/jō	D	sg					
andim	Ab K	11.14	-	nC	+	*andja-	B5a	noun	N	ja/jō	D	pl					
magin	Ab K	11.20	-	g	+	*magina-	A	noun	N	a/ō	A	sg					
fatararbes	Ab K	12.1	-	rC	-	*arbja-	B1a	noun	N	ja/jō	G	sg					
piszarite	Ab K	12.3	-	r	+	*skarida-	B5b	ppl					W1	past			
mitticarni	Ab K	12.8	-	rC	+	*garnja-	B1a	noun	N	ja/jō	N	sg					
slagi- fedherom	Ab K	12.13	-	g	+	*slagi-	A	noun	M	a/ō	D	pl					
fasti	Ab K	13.10	-	sC	+	*fastīn-	B2	noun	F	ī	N	sg					
mahti	Ab K	13.12	-	hC	+	*mahtīn-	B2	noun	F	ī	N	sg					
stati	Ab K	13.15	-	d	+	*stadi-	B3	noun	F	i	N	pl					
sagchit	Ab K	14.5	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
pitharbi	Ab K	14.12	-	rC	+	*parbja-	B1a	adj	M	ja/jō	A	sg					
zoacangis	Ab K	14.18	-	nC	+	*gangis	C2	verb					S7	pres	IND	2	sg
cakarauui	Ab K	15.9	-	rC	+	*garwja-	B1a	noun	N	i	N	sg					
angi	Ab K	15.18	-	nC	+	*angja-	B1a	adj	F	ja/jō	N	sg					
cahangit	Ab K	16.17	-	nC	+	*hangid	B5a	verb					W1	pres	IND	3	sg
farsahchit	Ab K	16.20	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
mastendan	Ab K	17.6	-	sC	-	*mast- jandīn-	B5a	noun	F	ī	N	sg					
forsantan	Ab K	17.9	-	nC	-	*sandjan	B5a	inf					W1				
farsantem	Ab K	17.1	-	nC	-	*sandida-	B5a	ppl					W1	past			
fastinot	Ab K	18.13	-	sC	+	*fastinōda-	A	ppl					W2	past			
pigangeo	Ab K	18.16	-	nC	+	*gangjan-	B1a	noun	M	jan/jōn	N	sg					
thacchit	Ab K	18.18	-	kC	+	*pak(k)id	B5b	verb					W1	pres	IND	3	sg
canamte	Ab K	18.19	-	mC	+	*namnida-	B5a	ppl					W1	past			
uuarit	Ab K	19.1	-	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
piuuari- antem	Ab K	19.5	-	r	+	*warjand-	B5c	ppl					W1	pres			
thagchio	Ab K	19.13	-	kC	+	*pakkjan-	B1b	noun	M	jan/jōn	N	sg					

ardhanit	Ab K	19.17	-	n	+	*panida-	B5b	ppl					W1	past				
castrauuit	Ab K	19.18	-	w	+	*strawida-	B5b	ppl					W1	past				
unmahtig	Ab K	20.6	-	hC	+	*mahṭiga-	D2	adj	M	a/ō	N	sg						
armidha	Ab K	22.2	-	rC	+	*armiḃō-	D1	noun	F	a/ō	N	sg						
angidha	Ab K	22.7	-	nC	+	*angiḃō-	D1	noun	F	a/ō	N	sg						
alti	Ab K	22.8	-	lC	+	*aldīn-	B2	noun	F	ī	D	sg						
unmahtig	Ab K	22.9	-	hC	+	*mahṭiga-	D2	adj	M	a/ō	N	sg						
alti	Ab K	22.10	-	lC	+	*aldīn-	B2	noun	F	ī	D	sg						
aldidha	Ab K	22.11	-	lC	+	*aldipō-	D1	noun	F	a/ō	N	sg						
aldi	Ab K	22.12	-	lC	+	*aldīn-	B2	noun	F	ī	N	sg						
piuualzit	Ab K	22.13	-	lC	+	*waltida-	B5a	ppl					W1	past				
camahchida	Ab K	22.19	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg						
ortuuassa	Ab K	23.12	-	sC	-	*hwassjō-	B1a	noun	F	a/ō	N	sg						
thrauis	Ab K	23.14	-	w	+	*prawis	B5b	verb					W1	pres	IND	2	sg	
sahchis	Ab K	23.14	-	k	+	*sakis	C2	verb					S6	pres	IND	2	sg	
tarni	Ab K	23.19	-	rC	+	*darnja-	B1a	adj	M	ja/jō	N	sg						
aruugit	Ab K	24.2	-	g	+	*wagida-	B5b	ppl					W1	past				
furislahit	Ab K	25.2	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
pifastinot	Ab K	25.3	-	sC	+	*fastinōd	A	verb					W2	pres	IND	3	sg	
spanit	Ab K	25.8	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg	
uuahsit	Ab K	25.16	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg	
ufcangit	Ab K	25.17	-	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg	
uuahsit	Ab K	25.18	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg	
aruualze	Ab K	26.11	-	lC	-	*waltju	B5a	verb					W1	pres	IND	1	sg	
aruuaṣgit	Ab K	26.17	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg	
angan	Ab K	26.18	-	nC	-	*angjan	B1a	inf					W1					
zoa- thanchandi	Ab K	27.11	-	nC	-	*pankjandīn-	B5a	noun	F	ī	N	sg						
moatzuo- uuarbithu	Ab K	28.3	-	rC	+	*warbiḃō-	D1	noun	F	a/ō	D	sg						
uuandi	Ab K	28.5	-	nC	+	*wandju	B5a	verb					W1	pres	IND	1	sg	
uuanditha	Ab K	28.7	-	nC	+	*wandipō-	D1	noun	F	a/ō	N	sg						

aruarditha	Ab K	28.7	-	rC	+	*wardipō-	D1	noun	F	a/ō	N	sg						
arin	Ab K	28.9	-	r	+	*arina-	A	noun	N	a/ō	N	pl						
flazzi	Ab K	28.10	-	tC	+	*flattja-	B1b	noun	N	ja/jō	N	pl						
pidhar- lihchor	Ab K	28.18	-	rC	+	*parb-likā-	D3	adverb										
alilandi	Ab K	29.8	-	l	+	*ali-	B1b	adj	N	ja/jō	N	sg						
alilandi	Ab K	29.8	-	nC	+	*landja-	B1a	adj	N	ja/jō	N	sg						
gihangando	Ab K	29.15	-	nC	-	*hangjand-	B5a	ppl					W1	pres				
slahit	Ab K	30.18	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
uuappi	Ab K	31.10	-	bC	+	*wabbja-	B1b	noun	N	ja/jō	N	sg						
casazzit	Ab K	32.4	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past				
salit	Ab K	32.17	-	l	+	*salid	B5b	verb					W1	pres	IND	3	sg	
casazta	Ab K	32.18	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg	
firsentit	Ab K	33.6	+	nC	+	*sandid	B5a	verb					W1	pres	IND	3	sg	
furthenkhit	Ab K	34.9	+	nC	+	*pānkid	B5a	verb					W1	pres	IND	3	sg	
kiuuerui	Ab K	34.12	+	rC	+	*hwarbī	B5a	verb					W1	pres	IMP	2	sg	
irlerchen	Ab K	35.3	+	sC	-	*laskjan	B5b	inf					W1					
festinonti	Ab K	35.8	+	sC	+	*fastinōnd-	A	ppl					W2	pres				
rechit	Ab K	38.4	+	kC	+	*rak(k)id	B5b	verb					W1	pres	IND	3	sg	
kinozsceffi	Ab K	38.11	-	p	+	*skapi-	B3	noun	F	i	D	sg						
antilothe	Ab K	38.15	-	nC	+	*andi-	B1a	noun	N	ja/jō	N	pl						
entipurdi	Ab K	38.16	+	nC	+	*andi-	B1a	noun	F	ī	N	sg						
antilodi	Ab K	38.18	-	nC	+	*andi-	B1a	noun	N	ja/jō	D	sg						
zohankendi	Ab K	39.2	-	nC	-	*hangjand-	B5a	ppl					W1	pres				
kiuualditha	Ab K	39.4	-	lC	+	*waldipō-	D1	noun	F	a/ō	N	sg						
krefdi	Ab K	41.8	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg						
mahdic	Ab K	41.9	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg						
halsendi	Ab K	41.16	-	lC	-	*halsjand-	B5a	ppl										
erhafti	Ab K	41.18	-	fC	+	*haftja-	B1a	adj	M	ja/jō	N	sg						
heilhafti	Ab K	43.13	-	fC	+	*haftīn-	B2	noun	F	ī	N	sg						
felises	Ab K	44.1	+	l	+	*falisa-	A	noun	M	a/ō	G	sg						

urlente	Ab K	44.7	+	nC	-	*landja-	B1b	adj	M	ja/jō	N	pl					
elilente	Ab K	44.8	+	l	+	*ali-	B1b	adj	M	ja/jō	N	pl					
elilente	Ab K	44.8	+	nC	-	*landja-	B1b	adj	M	ja/jō	N	pl					
kirechida	Ab K	44.9	+	kC	+	*rak(k)ipō-	D1	noun	F	a/ō	N	sg					
andiske	Ab K	45.8	-	nC	+	*andi-	B1a	adj	M	a/ō	N	pl					
kimeri- creozod	Ab K	45.10	+	r	+	*mari- greetōda-?	A	ppl					W2	past			
camachida	Ab K	47.16	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
erpeono	Ab K	48.3	+	rC	+	*arbjān-	B1a	noun	M	jan/jōn	G	pl					
kiklenkind	Ab K	48.6	+	nC	+	*klangida-	B5a	ppl					W1	past			
kipurscaflih	Ab K	48.1	-	pC	-	*skap-līka-	D3	adj	M	a/ō	N	sg					
einfalti	Ab K	48.14	-	lC	+	*faldīn-	B2	noun	F	ī	N	sg					
eintrafti	Ab K	48.14	-	fC	+	*traftīn-?	B2	noun	F	ī	N	sg					
irthenit	Ab K	48.17	+	n	+	*panida-	B5b	ppl					W1	past			
kihenkitha	Ab K	50.2	+	nC	+	*hangipō-	D1	noun	F	a/ō	N	sg					
firthenkendi	Ab K	50.11	+	nC	-	*pankjān-	B5a	ppl					W1	pres			
kisezzit	Ab K	50.18	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
pilakit	Ab K	51.4	-	g	+	*lagid	B5b	verb					W1	pres	IND	3	sg
pihaltit	Ab K	51.5	-	lC	+	*haldid	B5a	verb					S7	pres	IND	3	sg
iruualtit	Ab K	51.10	-	lC	+	*waltida-	B5a	ppl					W1	past			
pitharpliho	Ab K	52.2	-	rC	+	*parb-līka-	D3	adverb									
ahiero	Ab K	53.3	-	h	+	*ahiz-	A	noun	N	s	G	pl					
kistrauui	Ab K	53.5	-	wC	+	*strawwja-	B1b	noun	N	ja/jō	N	sg					
carouuitha	Ab K	53.6	-	rC	+	*garwipō-	D1	noun	F	a/ō	N	sg					
rechendi	Ab K	54.4	+	kC	-	*rakkjān-	B5b	ppl					W1	pres			
uuaedho	Ab K	55.8	-	r	-	*waripō-	D1	noun	F	a/ō	N	sg					
felisa	Ab K	55.12	+	l	+	*falisa-	A	noun	M	a/ō	N	pl					
pirentit	Ab K	56.2	+	nC	+	*randida-	B5a	ppl					W1	past			
erpinomo	Ab K	56.7	+	rC	+	*arbi-	B1a	noun	M	n	N	sg					
umpitharbi	Ab K	57.17	-	rC	+	*parbja-	B1a	adj	F	ja/jō	N	sg					
kimahchida	Ab K	58.6	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					

unpitharpi	Ab K	58.17	-	rC	+	*parbja-	B1a	adj	M	ja/jō	N	sg					
slengistein	Ab K	59.1	+	nC	+	*slangi-	B5a	noun	M	a/ō	N	sg					
dernico	Ab K	59.11	+	rC	+	*darnīga-	D2	adj	M	n	N	sg					
kihirmit	Ab K	59.16	+	rC	+	*harmid	B5a	verb					W1	pres	IND	3	sg
uvestiparn	Ab K	59.16	+	sC	+	*wasti- barna-	B1a	noun	N	a/ō	N	sg					
kipazzirot	Ab K	60.1	-	t	+	*batirōda-	C5	ppl					W2	past			
endi- prurdnessi	Ab K	60.10	+	nC	+	*andi-	B1a	noun	F	ja/jō	N	sg					
mekin	Ab K	60.10	+	g	+	*magina-	A	noun	N	a/ō	N	sg					
auista	Ab K	60.11	-	w	+	*awista-	A	noun	M	a/ō	N	pl					
kimahhitha	Ab K	60.12	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
kimahchitha	Ab K	61.5	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
fillit	Ab K	62.8	+	lC	+	*fallida-	B5a	ppl					W1	past			
umpihalsenti	Ab K	63.5	-	lC	-	*halsjand-	B5a	ppl					W1	pres			
pithenki	Ab K	63.14	+	nC	+	*pankī	B5a	verb					W1	pres	IMP	2	sg
kimahch- itha	Ab K	64.3	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
inlente	Ab K	64.6	+	nC	-	*landja-	B1a	adj	M	ja/jō	N	pl					
kimahitha	Ab K	64.13	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
pifellit	Ab K	64.17	-	lC	+	*fallid	C2	verb					S7	pres	IND	3	sg
sechea	Ab K	65.4	+	kC	+	*sakkjō-	B1b	noun	F	ja/jō	N	pl					
antrisc	Ab K	66.6	-	nC	+	*antiska-	B1a	adj	M	a/ō	N	sg					
herti	Ab K	67.5	+	rC	+	*hardja-	B1a	adj	M	ja/jō	N	sg					
palauuic	Ab K	67.6	-	lC	+	*balwīga-	D2	adj	M	a/ō	N	sg					
stedii	Ab K	67.7	+	d	+	*stadīga-	D2	adj	M	a/ō	N	sg					
herimanno	Ab K	68.15	+	r	+	*hari-	B1c	noun	M	a/ō	G	pl					
mahdiclih	Ab K	69.4	-	hC	+	*mahṭīg- līka-	D2	adverb									
mekis	Ab K	69.5	+	g	+	*magīs	C4a	verb					PP	pres	OPT	2	sg
kifestinod	Ab K	69.11	+	sC	+	*fastinōda-	A	ppl					W2	past			
pisenkit	Ab K	71.7	+	nC	+	*sankid	B5a	verb					W1	pres	IND	3	sg
unkisazdiu	Ab K	72.3	-	tC	-	*sat(t)ida-	B5b	ppl					W1	past			

fasti	Ab K	72.3	-	sC	+	*fastja-	B1a	adj	M	ja/jō	N	sg					
einge	Ab K	73.15	+	nC	-	*angja-	B1a	adj	M	ja/jō	N	pl					
herimanno	Ab K	74.2	+	r	+	*hari-	B1c	noun	M	a/ō	G	pl					
uuahsit	Ab K	75.1	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
feiliso	Ab K	75.2	+	l	+	*falisa-	A	noun	M	a/ō	G	pl					
uuerit	Ab K	76.1	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
firuuerit	Ab K	76.2	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
pisprehenkenti	Ab K	77.1	+	nC	-	*sprangjand-	B5a	ppl					W1	pres			
namin	Ab K	77.6	-	m	+	*namin-	B4	noun	M	n	D	sg					
insefit	Ab K	77.10	+	b	+	*sabid	B5b	verb					W1	pres	IND	3	sg
hregil	Ab K	78.2	+	g	+	*hragila-	A	noun	N	a/ō	N	sg					
antlenki	Ab K	78.4	+	nC	+	*langja-	B1a	noun	N	ja/jō	N	sg					
zuoquemi	Ab K	78.10	+	m	+	*kwamīn-	B2	noun	F	ī	N	sg					
kisezzen	Ab K	78.17	+	tC	-	*sattjan	B5b	inf					W1				
irtdenit	Ab K	79.5	+	n	+	*panida-	B5b	ppl					W1	past			
kistellit	Ab K	79.14	+	lC	+	*stal(l)ida-	B5b	ppl					W1	past			
kisezzit	Ab K	80.10	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
kienteomes	Ab K	81.1	+	nC	+	*andja-	B1a	verb					W2	pres	IND	1	pl
kisezzan	Ab K	81.12	+	tC	-	*sattjan	B5b	inf					W1				
kierpit	Ab K	81.13	+	rC	+	*arbid	B5a	verb					W1	pres	IND	3	sg
kisezzed	Ab K	82.8	+	tC	-	*sat(t)ida-	B5b	ppl					W1	past			
firthenkit	Ab K	82.14	+	nC	+	*pankida-	B5a	ppl					W1	past			
althrom	Ab K	82.17	-	lC	-	*aldira-	C5	adj	M	a/ō	D	pl					
sellent	Ab K	83.1	+	lC	-	*salljand	B5b	verb					W1	pres	IND	3	pl
pithekit	Ab K	83.2	+	k	+	*pakid	B5b	verb					W1	pres	IND	3	sg
kisezzit	Ab K	83.6	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
eohafti	Ab K	83.9	-	fC	+	*haftīn-	B2	noun	F	ī	D	sg					
kipezirota	Ab K	83.15	+	t	+	*batirōd-	C5	verb					W2	past	IND	3	sg
zisperi	Ab K	84.4	+	r	+	*spari-	A	adverb									
unsemfdi	Ab K	84.10	+	nC	+	*samftīn-	B2	noun	F	ī	N	sg					

kirekit	Ab K	85.9	+	k	+	*rakid	B5b	verb					W1	pres	IND	3	sg
erin	Ab K	85.13	+	r	+	*arina-	A	noun	N	a/ō	N	pl					
slafitha	Ab K	85.19	-	p	+	*slapipō-	D1	noun	F	a/ō	N	sg					
unpitherper	Ab K	86.2	+	rC	-	*parbja-	B1a	adj	M	ja/jō	N	sg					
iruualzton	Ab K	86.7	-	lC	-	*waltid-	B5a	verb					W1	past	IND	3	pl
mezzi	Ab K	87.1	+	tC	+	*mattja-	B1b	noun	M	ja/jō	N	sg					
mezzimos	Ab K	87.3	+	tC	+	*mattja-	B1b	noun	N	a/ō	N	sg					
mekinu	Ab K	87.12	+	g	+	*magina-	A	noun	N	a/ō	D	sg					
kisezit	Ab K	87.16	+	tC	+	*sat(t)id	B1b	verb					W1	pres	IND	3	sg
iruuaskit	Ab K	87.19	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg
thuuahit	Ab K	88.1	-	h	+	*pwahid	C2	verb					S6	pres	IND	3	sg
inthehit	Ab K	88.11	+	kC	+	*bak(k)id	B5b	verb					W1	pres	IND	3	sg
kestio	Ab K	89.10	+	sC	+	*gasti-	B3	noun	M	i	G	pl					
selitha	Ab K	89.11	+	l	+	*salipō-	D1	noun	F	a/ō	N	sg					
uuentendi	Ab K	89.14	+	nC	-	*wandjand-	B5a	ppl					W1	pres			
firselit	Ab K	90.3	+	l	+	*salida-	B5b	ppl					W1	past			
zisezzit	Ab K	91.4	+	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
piuuerfio	Ab K	91.8	+	rC	+	*warbju	B5a	verb					W1	pres	IND	1	sg
dakalihhidha	Ab K	91.14	-	gC	+	*dag-lik-ipō-	D3	noun	F	a/ō	N	sg					
dagolihha	Ab K	91.17	-	gC	+	*dag-lika-	D3	adj	N	n	N	sg					
kientitha	Ab K	92.18	+	nC	+	*andja-	B1a	noun	F	a/ō	N	sg					
kisezitha	Ab K	92.19	+	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg					
firsenkit	Ab K	93.4	+	nC	+	*sankid	B5a	verb					W1	pres	IND	3	sg
zislahit	Ab K	93.8	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
irhalsit	Ab K	93.9	-	lC	+	*halsid	B5a	verb					W1	pres	IND	3	sg
sarpfi	Ab K	93.17	-	rC	+	*skarpja-	B1a	adj	F	ja/jō	N	sg					
kisazzit	Ab K	93.19	-	t	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
pihelis	Ab K	94.1	+	l	+	*halis	B5b	verb					W1	pres	IND	2	sg
unsenfti	Ab K	94.7	+	nC	+	*samftja-	B1a	adj	F	ja/jō	N	sg					
iruuentit	Ab K	95.3	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg
hardem	Ab K	95.8	-	rC	-	*hardja-	B1a	adj	M	ja/jō	D	pl					

firthenkitlih	Ab K	96.8	+	nC	+	*pānkida-	B5a	adverb											
irthennen	Ab K	97.3	+	nC	-	*pānjan	B5b	inf						W1					
unfrauuit	Ab K	97.12	-	w	+	*frawid	B5b	verb						W1	pres	IND	3	sg	
phendico	Ab K	98.13	+	nC	+	*pādinga-	D4	noun	M	a/ō	G	pl							
sahhit	Ab K	98.18	-	k	+	*sakid	C2	verb						S6	pres	IND	3	sg	
sarphi	Ab K	99.8	-	rC	+	*skarpīn-	B2	noun	F	ī	N	sg							
zislihit	Ab K	99.13	+	h	+	*slahid	C2	verb						S6	pres	IND	3	sg	
herizohon	Ab K	100.1	+	r	+	*hari-tugan-	B1b	noun	M	n	N	pl							
thanglih	Ab K	100.12	+	nC	+	*pānk-līka-	D3	adj	F	a/ō	N	sg							
kisezzitha	Ab K	100.16	+	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg							
kisazta	Ab K	100.19	-	tC	-	*sat(t)id-	B5b	verb						W1	past	IND	3	sg	
kisaztom	Ab K	101.3	-	tC	-	*sat(t)id-	B5b	verb						W1	past	IND	1	pl	
stati	Ab K	101.5	-	d	+	*stadi-	B3	noun	F	i	D	sg							
kimahchitha	Ab K	102.11	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg							
kisependi	Ab K	103.5	+	pC	-	*skappjandīn-	B5b	noun	F	ī	N	sg	W1	pres					
palouuic	Ab K	103.14	-	lC	+	*balwīga-	D2	adj	M	a/ō	N	sg							
hrati	Ab K	104.6	-	ḃ	+	*hrapīn-	B2	noun	F	ī	A	sg							
huuaslihor	Ab K	104.10	-	sC	+	*hwass-līka-	D3	adverb											
huuassa	Ab K	104.13	-	sC	-	*hwassja-	B1a	adj	F	ja/jō	N	sg							
kithuuathit	Ab K	105.2	-	ḃ	+	*pwapid	B5b	verb						W1	pres	IND	3	sg	
kremizzot	Ab K	105.6	+	m	+	*gramitōd	A	verb						W2	pres	IND	3	sg	
pihalditha	Ab K	105.12	-	lC	+	*haldipō-	D1	noun	F	a/ō	N	sg							
kikarauui	Ab K	105.13	-	rC	+	*garwja-	B1a	noun	N	ja/jō	N	pl							
scefen	Ab K	106.2	+	pC	-	*skappjan	B6	inf						W1					
erleskit	Ab K	106.8	+	sC	+	*laskida-	B5a	ppl						W1	past				
umpitharpi	Ab K	107.3	-	rC	+	*parbja-	B5a	adj	M	ja/jō	N	sg							
irflauuen	Ab K	107.9	-	wC	-	*flawwjan	B5b	inf						W1					
strenken	Ab K	107.10	+	nC	-	*strangjan	B5a	inf						W1					
unpihelito	Ab K	107.13	+	l	+	*halida-	B5b	adverb											
recheo	Ab K	107.13	+	kC	+	*wrakkjan-	B1b	noun	M	jan/jōn	N	sg							
untkenkeo	Ab K	107.16	+	nC	+	*gangjan-	B1a	noun	M	jan/jōn	N	sg							

pikenkeo	Ab K	107.18	+	nC	+	*gangjan-	B1a	noun	M	jan/jōn	N	sg						
fatarerpes	Ab K	108.1	+	rC	-	*arbja-	B1a	noun	N	ja/jō	G	sg						
piscerito	Ab K	108.4	+	r	+	*skarida-	B5c	adverb										
irslahit	Ab K	108.13	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
irhefit	Ab K	108.18	+	b	+	*habid	B6	verb					S6	pres	IND	3	sg	
iruualzen	Ab K	109.6	-	lC	-	*waltjan	B5a	inf					W1					
kisezzen	Ab K	109.7	+	tC	-	*sattjan	B5b	inf					W1					
pihalti	Ab K	109.9	-	lC	+	*haldīn-	B2	noun	F	ī	N	sg						
fircertit	Ab K	109.19	+	rC	+	*tardida-	B5a	ppl					W1	past				
kascefti	Ab K	110.4	+	fC	+	*skaftja-	B1a	noun	N	ja/jō	N	sg						
irkhennit	Ab K	110.6	+	nC	+	*kannida-	B5a	ppl					W1	past				
irchanit	Ab K	110.6	-	nC	+	*kannida-	B5a	ppl					W1	past				
irchannendi	Ab K	110.8	-	nC	-	*kannjand-	B5a	ppl					W1	pres				
kileken	Ab K	112.2	+	gC	-	*laggjan	B5b	inf					W1					
irthenit	Ab K	112.4	+	n	+	*panida-	B5b	ppl					W1	past				
heffent	Ab K	113.5	+	bC	-	*habbjand	B6	verb					S6	pres	IND	3	pl	
thenennet	Ab K	113.6	+	nC	-	*pannjand	B5b	verb					W1	pres	IND	3	pl	
firthemphit	Ab K	113.10	+	mC	+	*pampid	B5a	verb					W1	pres	IND	3	sg	
inhrekilot	Ab K	114.6	+	g	+	*hragilōd	A	verb					W2	pres	IND	3	sg	
kisezzit	Ab K	114.7	+	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg	
kikarauuid	Ab K	115.6	-	rC	+	*garwida-	B5a	ppl					W1	past				
iruuahhit	Ab K	115.10	-	kC	+	*wak(k)ida-	B5b	ppl					W1	past				
zispari	Ab K	116.1	-	r	+	*spari-	A	adverb										
irhahcte	Ab K	116.2	-	kC	-	*rak(k)ida-	B5b	verb					W1	past				
kisezzis	Ab K	116.17	+	tC	+	*sat(t)is	B5b	verb					W1	pres	IND	2	sg	
stati	Ab K	117.1	-	d	+	*stadi-	B3	noun	F	i	D	sg						
kimennit	Ab K	117.2	+	nC	+	*mannida-	B5a	ppl					W1	past				
iruuentit	Ab K	117.6	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg	
fremithi	Ab K	117.17	+	m	+	*framipja-	B1a	adj	M	ja/jō	N	sg						
pislehit	Ab K	118.13	+	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
kireken	Ab K	118.18	+	kC	-	*rakkjan	B5b	inf					W1					

rehctreten	Ab K	119.16	+	kC	-	*rakkjand-	B5b	ppl					W1	pres			
strenki	Ab K	119.17	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
kinemnit	Ab K	120.2	+	mC	+	*namnid	B5a	verb					W1	pres	IND	3	sg
zespari	Ab K	120.3	-	r	+	*spari-	A	adverb									
firdhenk- endi	Ab K	120.6	+	nC	-	*bankjand-	B5a	ppl					W1	pres			
kihenkit	Ab K	120.10	+	nC	+	*hangid	B5a	verb					W1	pres	IND	3	sg
quelmitha	Ab K	121.9	+	lC	+	*kwalmiḃō-	D1	noun	F	a/ō	N	sg					
quelitha	Ab K	121.10	+	l	+	*kwaliḃō-	D1	noun	F	a/ō	N	sg					
samfti	Ab K	122.5	-	mC	+	*samftīn-	B2	noun	F	ī	N	sg					
phala- uuiskhundi	Ab K	123.11	-	lC	+	*falw- iskōndīn-	A	noun	F	ī	N	sg					
suuekhe	Ab K	123.14	+	kC	-	*swakkjō-	B1b	noun	F	ja/jō	N	sg					
ekisin	Ab K	124.2	+	g	+	*agisin-	A	noun	M	n	G	sg					
eikileihhi	Ab K	124.9	+	g	+	*agi-laika-?	A	noun	M	a/ō	N	sg					
herimanno	Ab K	124.10	+	r	+	*hari-	B1c	noun	M	a/ō	G	pl					
heri	Ab K	124.11	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
heri	Ab K	124.11	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
uueri	Ab K	124.13	+	r	+	*warīn-	B2	noun	F	ī	N	sg					
ekitha	Ab K	124.14	+	g	+	*agiḃō-	D1	noun	F	a/ō	N	sg					
scefteo	Ab K	125.4	+	fC	+	*skafti-	B3	noun	F	i	G	pl					
scefti	Ab K	125.7	+	fC	+	*skafti-	B3	noun	F	i	N	pl					
fliukonuueri	Ab K	126.11	+	r	+	*warīn-	B2	noun	F	ī	N	sg					
palouuic	Ab K	127.13	-	lC	+	*balwīga-	D2	adj	N	a/ō	N	sg					
falcit	Ab K	127.17	-	lC	+	*faltid	B5a	verb					W1	pres	IND	3	sg
irthenit	Ab K	128.7	+	n	+	*ḃanida-	B5b	ppl					W1	past			
harinumft	Ab K	128.9	-	r	+	*hari-	B1c	noun	F	i	N	sg					
uuahasmitha	Ab K	129.5	-	hC	+	*wahsm- iḃō-	D1	noun	F	a/ō	N	sg					
strenki	Ab K	129.7	+	nC	+	*strangja-	B1a	noun	M	ja/jō	N	sg					
kistetihafit	Ab K	129.18	+	d	+	*stadi-	B3	ppl					W1	past			
kistetihafit	Ab K	129.18	-	fC	+	*haftida-	B5a	ppl					W1	past			

esti	Ab K	130.17	+	sC	+	*asti-	B3	noun	M	i	N	pl						
steti	Ab K	133.1	+	d	+	*stadi-	B3	noun	F	i	D	sg						
scantlih	Ab K	133.3	-	nC	+	*skand- lika-	D3	adj	N	a/ō	N	pl						
suuaritha	Ab K	133.6	-	r	+	*swariḃō-	D1	noun	F	a/ō	N	sg						
paldi	Ab K	133.16	-	lC	+	*baldīn-	B2	noun	F	ī	N	sg						
cremizzond	Ab K	134.8	+	m	+	*gramitōnd	A	verb					W2	pres	IND	3	pl	
zenim	Ab K	134.12	+	n	+	*tani-	B3	noun	M	i	D	pl						
kisezzitha	Ab K	136.6	+	tC	+	*sat(t)ḃō-	D1	noun	F	a/ō	N	sg						
menisclih	Ab K	136.7	+	nC	+	*mannisk- lika-	A	adj	M	a/ō	N	sg						
pallihho	Ab K	136.9	-	lC	+	*bald-lika-	D3	adverb										
kauuerpian	Ab K	137.18	+	rC	+	*warbjan	B5a	inf					W1					
kimahchitha	Ab K	138.4	+	k	+	*makḃō-	D1	noun	F	a/ō	N	sg						
mekin	Ab K	138.13	+	g	+	*magina-	A	noun	N	a/ō	A	sg						
kinemnit	Ab K	139.7	+	mC	+	*namnida-	B5a	ppl					W1	past				
menthilot	Ab K	139.14	+	nC	+	*manḃilōd	A	verb					W2	pres	IND	3	sg	
kipenihhot	Ab K	140.9	+	n	+	*banikōda-	A	ppl					W2	past				
irkhennit	Ab K	140.13	+	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg	
strenken	Ab K	142.1	+	nC	-	*strangjan	B5a	inf					W1					
endi	Ab K	142.15	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg						
sepit	Ab K	143.2	+	p	+	*skapid	B6	verb					S6	pres	IND	3	sg	
pihaftitha	Ab K	143.11	-	fC	+	*haftḃō-	D1	noun	F	a/ō	N	sg						
scephandi	Ab K	144.3	+	pC	-	*skappjand-	B6	ppl					S6	pres				
erpeo	Ab K	144.7	+	rC	+	*arbjan-	B1a	noun	M	jan/jōn	N	sg						
urketilih	Ab K	144.10	+	d	+	*gadi-lika-?	A	adj	N	a/ō	N	sg						
antfenki	Ab K	146.8	+	nC	+	*fangja-	B1a	adj	N	ja/jō	N	sg						
ekiso	Ab K	146.12	+	g	+	*agisin-	A	noun	M	n	N	sg						
ekisonti	Ab K	146.15	+	g	+	*agisōnd-	A	ppl					W2	pres				
khacrefdic	Ab K	147.1	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg						
strenki	Ab K	147.2	+	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg						
alpeom	Ab K	147.7	-	lC	+	*albjō-	B1a	noun	F	ja/jō	D	pl						

vahkri	Ab K	148.8	-	kC	+	*wakrīn-	B2	noun	F	ī	N	sg					
sezziit	Ab K	148.16	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
anastendit	Ab K	149.3	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
iruuegkhit	Ab K	149.6	+	k	+	*wakid	B5b	verb					W1	pres	IND	3	sg
firmerridi	Ab K	149.10	+	rC	+	*marrida-	B5a	ppl					W1	past			
uuerfiu	Ab K	149.12	+	rC	+	*warbju	B5a	verb					W1	pres	IND	1	sg
frauuiolose	Ab K	150.2	-	w	+	*frawi-lausa-	B2	adj	M	a/ō	N	pl					
hregil	Ab K	150.3	+	g	+	*hragila-	A	noun	N	a/ō	N	sg					
samahefticum	Ab K	152.11	+	fC	+	*haft-ing-	D4	adverb									
kisezzit	Ab K	153.4	+	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
kisezzit	Ab K	153.5	+	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
anafallit	Ab K	153.9	-	lC	+	*fallid	C2	verb					S7	pres	IND	3	sg
irrihhitha	Ab K	154.9	+	kC	+	*rak(k)ipō-	D1	noun	F	a/ō	N	sg					
kirekit	Ab K	155.4	+	kC	+	*rak(k)ida-	B5b	ppl					W1	past			
samanhafdic	Ab K	155.5	-	fC	+	*haftīga-	D2	adj	M	a/ō	N	sg					
unki- refsentlih	Ab K	155.12	+	f	-	*rafisjand-	A	adj	M	a/ō	N	sg					
unpihuualzit	Ab K	155.11	-	lC	+	*waltida-	B5a	ppl					W1	past			
uuahsmitha	Ab K	156.2	-	hC	+	*wahsmipō-	D1	noun	F	a/ō	N	sg					
kisezzitha	Ab K	156.5	+	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg					
kifestinod	Ab K	156.7	+	sC	+	*fastinōda-	A	ppl					W2	past			
kinekilid	Ab K	156.8	+	gC	+	*naglida-	B5a	ppl					W1	past			
situhafti	Ab K	156.13	-	fC	+	*haftīn-	B2	noun	F	ī	N	sg					
lihtuuerpit	Ab K	157.6	+	rC	+	*warbida-	B5a	ppl					W1	past			
unmahdic	Ab K	159.7	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
pizetit	Ab K	160.4	+	d	+	*tadid	B5b	verb					W1	pres	IND	3	sg
uuerit	Ab K	161.5	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
uuerit	Ab K	161.6	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
zeni	Ab K	162.9	+	n	+	*tani-	B3	noun	M	i	G	pl					
merikerte	Ab K	162.10	+	r	+	*mari-	B1c	noun	F	ja/jō	A	sg					
merikerte	Ab K	162.10	+	rC	-	*gardjō-	B1a	noun	F	ja/jō	A	sg					

uuerino	Ab K	163.11	+	r	+	*warīn-	B2	noun	F	ī	G	pl					
trekit	Ab K	164.3	+	g	+	*dragid	C2	verb					S6	pres	IND	3	sg
unkienteod	Ab K	164.14	+	nC	+	*andjōda-	B1a	ppl					W2	past			
fiantscaflih	Ab K	164.16	-	pC	+	*skap-līka-	D3	adj	M	a/ō	N	sg					
firslenkendi	Ab K	165.16	+	nC	-	*slangjand-	B5a	ppl					W1	pres			
steti	Ab K	166.13	+	d	+	*stadi-	B3	noun	F	i	D	sg					
spenit	Ab K	167.2	+	n	+	*spanid	C2	verb					S6	pres	IND	3	sg
urlenti	Ab K	167.2	+	nC	+	*landja-	B1a	adj	M	ja/jō	N	sg					
elilenti	Ab K	167.4	+	l	+	*ali-	B1b	adj	M	ja/jō	N	sg					
elilenti	Ab K	167.4	+	nC	+	*landja-	B1a	adj	M	ja/jō	N	sg					
spenit	Ab K	167.7	+	n	+	*spanid	C2	verb					S6	pres	IND	3	sg
friuntskephi	Ab K	167.12	+	p	+	*skapi-	B3	noun	F	i	G	sg					
firslahit	Ab K	167.16	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
firslahit	Ab K	167.17	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
kiuualtithu	Ab K	168.5	-	lC	+	*waldiḃō-	D1	noun	F	a/ō	D	sg					
slenkirendi	Ab K	169.11	+	nC	+	*slangi-	A	noun	F	ī	N	sg					
slenkirendi	Ab K	169.11	+	nC	+	*randīn-	B2	noun	F	ī	N	sg					
steti	Ab K	170.2	+	d	+	*stadi-	B3	noun	F	i	D	sg					
iruuekit	Ab K	170.11	+	kC	+	*wak(k)ida-	B5b	ppl					W1	past			
unfirhelit	Ab K	171.7	+	l	+	*halida-	B5b	ppl					W1	past			
unpithekit	Ab K	171.8	+	kC	+	*ḃak(k)ida-	B5b	ppl					W1	past			
alti	Ab K	172.6	-	lC	+	*aldīn-	B2	noun	F	ī	D	sg					
anslehit	Ab K	173.2	+	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
anastephit	Ab K	173.2	+	p	+	*stapid	B5b	verb					W1	pres	IND	3	sg
kenkit	Ab K	173.3	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
unpidarpi	Ab K	173.5	-	rC	+	*ḃarbja-	B1a	adj	M	ja/jō	N	sg					
nergendo	Ab K	173.6	+	r	+	*narjand-	B5c	ppl					W1	pres			
endi	Ab K	175.14	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
endilosta	Ab K	175.15	+	nC	+	*andja-	B1a	adj	M	a/ō	N	pl					
seche	Ab K	175.15	+	kC	-	*sakkjō-	B1b	noun	F	ja/jō	N	sg					
kienteod	Ab K	177.11	+	nC	+	*andi-	B1a	ppl					W2	past			

mahtike	Ab K	177.13	-	hC	+	*mahtīga-	D2	adj	F	a/ō	N	pl					
strenke	Ab K	177.15	+	nC	-	*strangja-	B1a	adj	M	ja/jō	N	pl					
samftlihho	Ab K	178.5	-	mC	+	*samft-līka-	D3	adverb									
teriendi	Ab K	178.15	+	r	+	*tarjand-	B5b	ppl					W1	pres			
teriantlih	Ab K	179.1	+	r	+	*tarjand-	B5b	adj	M	a/ō	N	sg					
leffendi	Ab K	179.5	+	bC	-	*labbjand-?	B5b	ppl					W1	pres			
sceffina	Ab K	180.3	+	p	+	*skapina-	A	noun	M	a/ō	G	pl					
piselitha	Ab K	180.12	+	l	+	*salipō-	D1	noun	F	a/ō							
thuruh-trennilon	Ab K	181.3	+	nC	+	*trannilōn	A	inf					W2				
altithu	Ab K	182.11	-	lC	+	*aldipō-	D1	noun	F	a/ō	D	sg					
steti	Ab K	182.14	+	d	+	*stadi-	B3	noun	F	i	N	pl					
urlastri	Ab K	184.7	-	sC	+	*lastrja-	B1a	adj	M	ja/jō	N	sg					
uueri	Ab K	185.2	+	r	+	*warīn-	B2	noun	F	ī	N	sg					
irhefendi	Ab K	186.11	+	bC	-	*habbjand-	B6	ppl					S6	pres			
kinoz-sceffendi	Ab K	187.11	+	pC	-	*skapp-jandīn-	B6	noun	F	ī	N	sg					
pezzirom	Ab K	188.9	+	t	+	*batira-	C5	adj	M	a/ō	D	pl					
sakhilin	Ab K	188.12	-	k	+	*sakilīna-	D5	noun	N	a/ō	N	sg					
hendi	Ab K	189.7	+	nC	+	*handi-	B3	noun	F	i	D	sg					
regil	Ab K	189.8	+	g	+	*hragila-	A	noun	N	a/ō	N	sg					
cuuelit	Ab K	190.10	+	l	+	*kwalid	B5b	verb					W1	pres	IND	3	sg
strenki	Ab K	191.9	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
pifestinot	Ab K	191.9	+	sC	+	*fastinōda-	A	ppl					W2	past			
festitha	Ab K	191.12	+	sC	+	*fastipō-	D1	noun	F	a/ō	N	sg					
frihalsi	Ab K	191.15	-	lC	+	*halsīn-	B2	noun	F	ī	N	sg					
firthenkhit	Ab K	193.11	+	nC	+	*pānkida-	B5a	ppl					W1	past			
ekisin	Ab K	195.7	+	g	+	*agisin-	A	noun	M	n	D	sg					
pifellit	Ab K	195.7	+	lC	+	*fallida-	B5a	ppl					W1	past			
endi	Ab K	196.1	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
nestila	Ab K	196.11	+	sC	+	*nastilō-	A	noun	F	a/ō	N	sg					
dhenkit	Ab K	197.7	+	nC	+	*pānkid	B5a	verb					W1	pres	IND	3	sg

skeffit	Ab K	197.9	+	p	+	*skapid	B6	verb					S6	pres	IND	3	sg
kimezzitha	Ab K	197.14	+	tC	+	*mat(t)jō-	D1	noun	F	a/ō	N	sg					
hanckendi	Ab K	200.7	-	nC	-	*hangjand-	B5a	ppl					W1	pres			
steti	Ab K	201.1	+	d	+	*stadi-	B3	noun	F	i	N	pl					
kilentit	Ab K	201.3	+	nC	+	*landida-	B5a	ppl					W1	past			
pitharplihho	Ab K	201.5	-	rC	+	*parb-līka-	D3	adverb									
stranlihho	Ab K	201.6	-	nC	+	*strang-līka-	D3	adverb									
zisperi	Ab K	202.7	+	r	+	*spari-	A	adverb									
stenkhe	Ab K	203.3	+	nC	-	*stanki-	B3	noun	M	i	N	pl					
marceo	Ab K	203.8	-	rC	+	*martjan-	B1a	noun	M	n	N	sg					
uualthilin	Ab K	204.8	-	lC	+	*waldilīna-	D5	noun	N	a/ō	N	pl					
kikhennit	Ab K	204.12	+	nC	+	*kannida-	B5a	ppl					W1	past			
stenkhe	Ab K	205.9	+	nC	-	*stankjō-	B1a	noun	F	a/ō	N	sg					
slahit	Ab K	206.3	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
irslahit	Ab K	206.3	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
kinendit	Ab K	207.10	+	nC	+	*namnida-	B5a	ppl					W1	past			
firthecki	Ab K	208.3	+	nC	+	*pānkī	B5a	verb					W1	pres	IMP	2	sg
kisezzit	Ab K	208.8	+	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
meginig	Ab K	208.13	+	g	+	*magina-	A	noun	N	a/ō	D	sg					
mahti	Ab K	209.4	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
frauui	Ab K	211.8	-	w	+	*frawīn-	B2	noun	F	ī	N	sg					
antlenki	Ab K	212.10	+	nC	+	*langja-	B1a	noun	N	ja/jō	N	sg					
frauendi	Ab K	213.1	-	wC	-	*frawwjand-	B5b	ppl					W1	pres			
menthendi	Ab K	213.2	+	nC	-	*manpjand-	B5a	ppl					W1	pres			
herizoho	Ab K	214.10	+	r	+	*hari-	B1c	noun	M	n	N	sg					
trauid	Ab K	215.2	-	w	+	*prowid	B5b	verb					W1	pres	IND	3	sg
uuahsmic	Ab K	215.9	-	hC	+	*wahsm- īga-	D2	adj	M	a/ō	N	sg					
scantlihho	Ab K	216.9	-	mC	+	*skand-līka-	D3	adverb									
pifestinod	Ab K	216.11	+	sC	+	*fastinōda-	A	ppl					W2	past			

pifestinod	Ab K	216.14	+	sC	+	*fastinōda-	A	ppl					W2	past			
untarsentit	Ab K	216.15	+	nC	+	*sandida-	B5a	ppl					W1	past			
pifesti-notero	Ab K	217.1	+	sC	+	*fastinōda-	A	ppl					W2	past			
pifestinote	Ab K	217.4	+	sC	+	*fastinōda-	A	ppl					W2	past			
pihaltlihho	Ab K	217.5	-	lC	+	*hald-līka-	D3	adverb									
endi	Ab K	217.14	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	pl					
misuuentit	Ab K	218.4	+	nC	+	*wandida-	B5a	ppl					W1	past			
hokiuuulti	Ab K	219.12	-	lC	+	*waldīn-	B2	noun	F	ī	N	sg					
irlekent	Ab K	220.4	+	gC	-	*laggjand	B5b	verb					W1	pres	IND	3	sg
uueren	Ab K	220.8	+	r	-	*warjan	B5c	inf					W1				
irplendit	Ab K	220.10	+	nC	+	*blandida-	B5a	ppl					W1	past			
firklenkit	Ab K	221.3	+	nC	+	*klangid	B5a	verb					W1	pres	IND	3	sg
kifestinod	Ab K	221.14	+	sC	+	*fastinōda-	A	ppl					W2	past			
strenki	Ab K	222.8	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
firhabitha	Ab K	223.7	-	b	+	*habipō-	D1	noun	F	a/ō	N	sg					
scaphit	Ab K	224.1	-	pC	+	*skap(p)id	B6	verb					S6	pres	IND	3	sg
irthenit	Ab K	225.4	+	n	+	*panida-	B5b	ppl					W1	past			
akiuuis	Ab K	225.16	-	g	+	*agi-	A	adverb									
kikarauui	Ab K	226.7	-	rC	+	*garwīn-	B2	noun	F	ī	N	sg					
kimahhitha	Ab K	226.16	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
hardii	Ab K	227.5	-	rC	+	*hardīn-?	B2	noun	F	ī	N	sg					
eruuakhit	Ab K	227.9	-	k	+	*wakid	B5b	verb					W1	pres	IND	3	sg
piuualzit	Ab K	227.10	-	lC	+	*waltida-	B5a	verb					W1	pres	IND	3	sg
furisezziu	Ab K	228.5	+	tC	+	*sattju	B5b	verb					W1	pres	IND	1	sg
endi	Ab K	228.6	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
uuekit	Ab K	229.8	+	g	+	*wagid	B5b	verb					W1	pres	IND	3	sg
uueken	Ab K	229.14	+	gC	-	*waggjan	B5b	inf					W1				
nennent	Ab K	230.5	+	mC	-	*namnjand	B5a	verb					W1	pres	IND	3	pl
meki	Ab K	231.6	+	g	+	*magī	C4a	verb					PP	pres	OPT	1	sg
mekis	Ab K	231.7	+	g	+	*magīs	C4a	verb					PP	pres	OPT	2	sg

mekis	Ab K	231.7	+	g	+	*magīs	C4a	verb					PP	pres	OPT	2	sg
sceffin	Ab K	231.13	+	p	+	*skapina-	A	noun	M	a/ō	N	sg					
zisperi	Ab K	232.13	+	r	+	*spari-	A	adverb									
hemithi	Ab K	233.9	+	m	+	*hamidja-	A	noun	N	ja/jō	N	sg					
namin	Ab K	235.1	-	m	+	*namin-	B4	noun	M	n	D	sg					
mahdi	Ab K	235.2	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
festi	Ab K	235.16	+	sC	+	*fastja-	B1a	adj	N	ja/jō	N	sg					
kienteod	Ab K	235.17	+	nC	+	*andjōda-	B1a	ppl					W2	past			
kihregilod	Ab K	236.14	+	g	+	*hragilōda-	A	ppl					W2	past			
irsazta	Ab K	236.14	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
firsahhit	Ab K	237.5	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
kisazzit	Ab K	238.2	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
innegilen	Ab K	238.6	+	g	+	*nagiljan	A	inf					W1				
pidennen	Ab K	238.10	+	nC	+	*pannjan	B5b	inf					W1				
lenti	Ab K	239.2	+	nC	+	*landīn-	B2	noun	F	ī	N	sg					
makin	Ab K	239.2	-	g	+	*magina-	A	noun	N	a/ō	N	pl					
palthi	Ab K	239.5	-	lC	+	*baldīn-	B2	noun	F	ī	A	sg					
kiscepfes	Ab K	239.6	+	pC	+	*skappjēs	B6	verb					S6	pres	OPT	2	sg
untarstantit	Ab K	239.10	-	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
steti	Ab K	239.11	+	d	+	*stadi-	B3	noun	F	i	D	sg					
kisaztos	Ab K	239.11	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	2	sg
piuualzit	Ab K	240.7	-	lC	+	*waltid	B5a	verb					W1	pres	IND	3	sg
mahti	Ab K	241.2	-	hC	+	*mahti-	B3	noun	F	i	A	pl					
lekendi	Ab K	242.6	+	kC	-	*lakkjand-	B5b	ppl					W1	pres			
krefti	Ab K	242.7	+	fC	+	*krafti-	B3	noun	F	i	D	sg					
mekinu	Ab K	242.8	+	g	+	*magina-	A	noun	N	a/ō	D	sg					
stranlih	Ab K	242.11	-	nC	+	*strang- lika-	D3	adj	N	a/ō	N	sg					
mahdic	Ab K	242.12	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
felisa	Ab K	243.1	+	l	+	*falisa-	A	noun	M	a/ō	N	pl					
strenki	Ab K	243.2	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					

scefil	Ab K	244.15	+	p	+	*skapila-	A	noun	M	a/ō	N	sg					
kienteod	Ab K	245.6	+	nC	+	*andjōda-	B1a	ppl					W2	past			
uuerid	Ab K	247.6	+	r	+	*wariḡa-	A	noun	M	a/ō	N	sg					
mari- creozza	Ab K	248.2	-	r	+	*mari- greetō-?	A	noun	F	a/ō	N	sg					
festi	Ab K	248.6	+	sC	+	*fastīn-	B2	noun	F	ī	N	sg					
festi	Ab K	248.12	+	sC	+	*fastīn-	B2	noun	F	ī	N	sg					
steti	Ab K	248.14	+	d	+	*stadi-	B3	noun	F	i	N	pl					
kisezzitha	Ab K	249.6	+	tC	+	*sat(t)ḡbō-	D1	noun	F	a/ō	N	sg					
halti	Ab K	249.12	-	lC	+	*aldīn-	B2	noun	F	ī	N	sg					
kimahhitha	Ab K	251.5	-	k	+	*makiḡbō-	D1	noun	F	a/ō	N	sg					
nennunka	Ab K	251.8	+	mC	-	*namn- jungō-	B5a	noun	F	a/ō	N	sg					
thenkit	Ab K	251.15	+	nC	+	*ḡankid	B5a	verb					W1	pres	IND	3	sg
lesken	Ab K	253.1	+	sC	-	*laskjan	B5a	inf					W1				
irleskit	Ab K	253.3	+	sC	+	*laskida-	B5a	ppl					W1	past			
kimahhitha	Ab K	253.8	-	k	+	*makiḡbō-	D1	noun	F	a/ō	N	sg					
kimahit	Ab K	254.1	-	k	+	*makiḡbō-	D1	noun	F	a/ō	N	sg					
erhaftitha	Ab K	254.7	-	fC	+	*haftiḡbō-	D1	noun	F	a/ō	N	sg					
unscaflihho	Ab K	255.7	-	pC	+	*skap-līka-	D3	adverb									
thenkhendi	Ab K	255.10	+	nC	-	*ḡankjand-	B5a	ppl					W1	pres			
thennent	Ab K	255.12	+	nC	-	*ḡannjand	B5b	verb					W1	pres	IND	3	pl
thennunku	Ab K	255.14	+	nC	-	*ḡannjungō-	B5b	noun	F	a/ō	N	sg					
untar- habithu	Ab K	255.15	-	b	+	*habiḡbō-	D1	noun	F	a/ō	N	sg					
untarsentit	Ab K	256.3	+	nC	+	*sandida-	B5a	ppl					W1	past			
untarlekid	Ab K	256.10	+	g	+	*lagid	B5b	verb					W1	pres	IND	3	sg
pismerit	Ab K	258.3	+	r	+	*smarid	B5c	verb					W1	pres	IND	3	sg
themphit	Ab K	258.8	+	mC	+	*ḡampid	B5a	verb					W1	pres	IND	3	sg
garte	Ab K	259.6	-	rC	-	*gardjō-	B1a	noun	F	ja/jō	N	sg					
meniki	Ab K	260.3	+	n	+	*manigīn-	B2	noun	F	ī	N	sg					
felisom	Ab K	261.1	+	l	+	*falisa-	A	noun	M	a/ō	D	pl					

felise	Ab K	261.2	+	l	+	*falisa-	A	noun	M	a/ō	A	pl					
lekentis	Ab K	261.2	+	gC	-	*laggjand-	B5b	ppl					W1	pres			
firthenkhit	Ab K	261.9	+	nC	+	*pānkid	B5a	verb					W1	pres	IND	3	sg
kirekhitha	Ab K	262.10	+	kC	+	*rak(k)jō-	D1	noun	F	a/ō	N	sg					
endi	Ab K	262.14	+	nC	+	*andja-	B1a	noun	N	ja/jō	N	sg					
alasperi	Ab K	263.2	+	r	+	*sparīn-	B2	noun	F	ī	D	sg					
karauuit	Ab K	263.4	-	rC	+	*garwid	B5a	verb					W1	pres	IND	3	sg
kilekit	Ab K	263.6	+	g	+	*lagid	B5b	verb					W1	pres	IND	3	sg
kisezzit	Ab K	263.10	+	t	+	*satid	B5b	verb					W1	pres	IND	3	sg
festinond	Ab K	263.6	+	sC	+	*fastinōnd-	A	ppl					W1	pres			
unki-mahhitha	Ab K	265.8	-	k	+	*makijō-	D1	noun	F	a/ō	N	sg					
kikarauui	Ab K	265.11	-	rC	+	*garwīn-	B2	noun	F	ī	N	sg					
heçgepugi?	Ab K	265.14	+	gC	-	*aggja-	B1b	noun	M	i	D	sg					
uparkenkit	Ab K	266.4	+	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
kienteod	Ab K	266.14	+	nC	+	*andjōda-	B1a	ppl					W2	past			
scefti	Ab K	267.10	+	fC	+	*skafti-	B3	noun	F	i	N	pl					
piuueemmit	Ab K	268.1	+	mC	+	*wammida-	B5a	ppl					W1	past			
eikisih	Ab K	268.2	+	g	+	*agis-lika-	A	adj	M	a/ō	N	sg					
sapphii	Ab K	268.6	-	b	+	*sabīn-	B2	noun	F	ī	N	sg					
thechi	Ab K	268.7	+	k	+	*pākīn-	B2	noun	F	ī	N	sg					
ankit	Ab K	268.9	-	nC	+	*angid	B5a	verb					W1	pres	IND	3	sg
thechi	Ab K	269.1	+	k	+	*pākīn-	B2	noun	F	ī	N	sg					
thechent	Ab K	269.2	+	kC	-	*pakkjand	B5b	verb					W1	pres	IND	3	pl
strengi	Ab K	269.4	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
kiscendis	Ab K	269.5	+	nC	+	*skandis	B5a	verb					W1	pres	IND	2	sg
ekison	Ab K	269.6	+	g	+	*agisan-	A	noun	M	n	A	sg					
thricege	Ab K	269.8	+	gC	-	*daggja-	B1b	adj	M	ja/jō	N	sg					
suuekhe	Ab K	270.10	+	kC	-	*swakkjō-	B1b	noun	F	ja/jō	N	sg					
manike	Ab K	271.8	-	n	+	*maniga-	A	adj	M	a/ō	N	pl					
peri	Ab K	273.2	+	r	+	*barja-	B1c	noun	N	ja/jō	A	sg					

hrekil	Ab K	273.2	+	g	+	*hragila-	A	noun	N	a/ō	N	pl						
resti	Ab K	273.5	+	sC	+	*rastin-	B2	noun	F	ī	N	sg						
petti	Ab K	273.5	+	dC	+	*baddja-	B1b	noun	N	ja/jō	N	sg						
uuendendi	Ab K	273.8	+	nC	-	*wand- jandin-	B5a	noun	F	ī	N	sg						
irleskit	Ab K	274.3	+	sC	+	*laskid	B5a	verb					W1	pres	IND	3	sg	
kikhennit	Ab K	274.3	+	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg	
uuiluuerbic	Ab K	275.1	+	rC	+	*warb-īga-	D2	adj	M	a/ō	N	sg						
suuenkhit	Ab K	275.5	+	nC	+	*swankid	B5a	ppl					W1	past				
kakanuueriti	Ab K	275.13	+	rC	+	*wardin-	B2	noun	F	ī	N	sg						
raukhelle	Ab K	276.3	+	IC	-	*kalljō-	B1b	noun	F	ja/jō	N	sg						
enki	Ab K	277.6	+	nC	+	*angin-	B2	noun	F	ī	N	sg						
uuerienni	Ab K	279.4	+	r	+	*farjan	B5c	inf					W1					
menthit	Ab K	279.9	+	nC	+	*manpid	B5a	verb					W1	pres	IND	3	sg	
ahtfenki	Ab K	280.2	+	nC	+	*fangja-	B5a	adj	F	ja/jō	N	sg						
fagiri	Ab K	280.4	-	g	+	*fagirin-	A	noun	F	ī	N	sg						
hellent	Ab K	280.9	+	IC	-	*halljand	B5b	verb					W1	pres	IND	3	pl	
uuendit	Ab K	280.9	+	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg	
uuerfit	Ab K	281.5	+	rC	+	*warbid	B5a	verb					W1	pres	IND	3	sg	
trauuitha	Ab K	281.7	-	w	+	*drawida-	B5b	verb					W1	past	IND	3	sg	
huuennen	Ab K	282.3	+	nC	+	*hwannjan	B5a	inf					W1					
uuekit	Ab K	282.3	+	k	+	*wakid	B5b	verb					W1	pres	IND	3	sg	
mekin	Ab K	282.4	+	g	+	*magina-	A	noun	N	a/ō	N	sg						
mekin	Ab K	282.5	+	g	+	*magina-	A	noun	N	a/ō	A	sg						
mekin	Ab K	282.6	+	g	+	*magina-	A	noun	N	a/ō	N	sg						
noduuekitha	Ab K	282.6	+	gC	+	*wag(g)ipō-	D1	noun	F	a/ō	N	sg						
mekin	Ab K	282.10	+	g	+	*magina-	A	noun	N	a/ō	N	sg						
mekin	Ab K	282.11	+	g	+	*magina-	A	noun	N	a/ō	N	sg						
kihefte	Ab K	283.5	+	fC	-	*haftjan	B5a	inf					W1					
strankiu	Ab K	283.10	-	nC	+	*strangja-	B1a	adj	F	ja/jō	N	sg						
strenkista	Ab K	283.10	+	nC	+	*strangista-	C5	adj	M	a/ō	D	sg						

festitha	Ab K	283.14	+	sC	+	*fastipō-	D1	noun	F	a/ō	N	sg					
fertinunc	Ab K	284.1	+	sC	+	*fastinungō-	B1a	noun	F	a/ō	N	sg					
kariuic	Ab K	284.3	-	rC	+	*garwīga-	D2	adj	M	a/ō	N	sg					
thekhit	Ab K	285.3	+	nC	+	*bankīd	B5a	verb					W1	pres	IND	3	sg
uuiluerbiic	Ab K	285.5	+	rC	+	*warb-īga-	D2	adj	M	a/ō	N	sg					
elinna	Ab K	286.6	+	l	+	*alinō-	A	noun	F	a/ō	N	sg					
elinamez	Ab K	286.7	+	l	+	*alina-	A	noun	N	a/ō	N	sg					
mahti	Ab K	286.9	-	hC	+	*mahti-	B3	noun	F	i	G	sg					
uuasmic	Ab K	286.10	-	hC	+	*wahsmīga-	D2	adj	M	a/ō	N	sg					
zisperi	Ab K	287.9	+	r	+	*spari-	A	adverb									
uuerihan	Ab K	287.11	+	r	+	*warjan	B5b	inf					W1				
restendi	Ab K	288.13	+	sC	-	*rastjand-	B5a	ppl					W1	pres			
ellenhaft	Ab K	289.3	+	lC	-	*alljana-	A	adj	M	a/ō	N	sg					
irfremidid	Ab K	289.13	+	m	+	*framidida-	A	ppl					W1	past			
emezzihic	Ab K	320.7	+	m	-	*amitīga-	A	adj	N	a/ō	A	sg					
almahticum	Ab K	321.3	-	hC	+	*mahtīga-	D2	adj	M	a/ō	D	sg					
kiuualtiu	Ab K	321.14	-	lC	+	*waldi-	B3	noun	F	i	D	sg					
almahtikin	Ab K	322.7	-	hC	+	*mahtīgin-	D2	adj	M	n	G	sg					
mootscaffi	Ab Pa	124a.6	-	p	+	*skapi-	B3	noun	F	i	D	sg					
friuntscaffi	Ab Pa	124a.6	-	p	+	*skapi-	B3	noun	F	i	D	sg					
analogkende	Ab Pa	124a.7	-	gC	-	*laggjand-	B5b	ppl					W1	pres			
farsahhit	Ab Pa	124a.11	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
aruuaskit	Ab Pa	124a.16	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg
duahit	Ab Pa	124a.16	-	h	+	*pwahid	C2	verb					S6	pres	IND	3	sg
cafastinot	Ab Pa	124a.18	-	sC	+	*fastinōda-	A	ppl					W2	past			
farslahit	Ab Pa	124a.22	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
farspanit	Ab Pa	124a.22	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg
casprangit	Ab Pa	124a.23	-	nC	+	*sprangida-	B5a	ppl					W1	past			
glati	Ab Pa	124b.5	-	lC	+	*kaldīn-	B2	noun	F	ī	N	sg					
bartiro	Ab Pa	124b.17	-	rC	+	*hardiran-	C5	adj	M	n	N	sg					
mendenti	Ab Pa	124b.19	+	nC	-	*mandjand-	B5a	ppl					W1	pres			

stimangi	Ab Pa	124b.20	-	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg						
gamahhido	Ab Pa	124b.22	-	k	+	*makiḃō-	D1	noun	F	a/ō	N	sg						
unsest	Ab Pa	124b.26	+	mC	-	*samftja-	B1a	adj	M	ja/jō	N	sg						
salihus	Ab Pa	124c.3	-	l	+	*sali-hūsa-	B3	noun	N	a/ō	N	sg						
gauualit	Ab Pa	124c.5	-	l	+	*walida-	B5b	ppl					W1	past				
gafastinot	Ab Pa	124c.8	-	sC	+	*fastinōda-	A	ppl					W2	past				
fastinode	Ab Pa	124c.13	-	sC	+	*fastinōda-	A	noun	M	a/ō	D	sg						
ana- leccende	Ab Pa	124c.16	+	gC	-	*laggjand-	B5b	ppl					W1	pres				
souuarida	Ab Pa	124c.17	-	r	+	*swariḃō-	D1	noun	F	a/ō	N	sg						
arsuar&e	Ab Pa	124c.19	-	r	-	*swarida-	B5c	ppl					W1	past				
sarphida	Ab Pa	124c.21	-	rC	+	*skarpibō-	D1	noun	F	a/ō	N	sg						
salauui	Ab Pa	124c.26	-	lC	+	*salwja-	B1a	adj	N	ja/jō	N	sg						
uuassi	Ab Pa	124d.10	-	sC	+	*wassīn-	B2	noun	F	ī	N	sg						
ende	Ab Pa	124d.15	+	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg						
entim	Ab Pa	124d.16	+	nC	+	*andja-	B1a	noun	N	ja/jō	D	pl						
arbes	Ab Pa	124d.	-	rC	-	*arbja-	B1a	noun	N	ja/jō	G	sg						
pisarite	Ab Pa	124d.23	-	r	+	*skarida-	B5c	ppl					W1	past				
mittilacarni	Ab Pa	124d.25	-	rC	+	*garnja-	B1a	noun	N	ja/jō	N	sg						
flagi- fedarum	Ab Pa	124e.3	-	g	+	*slagi-	A	noun	M	a/ō	D	pl						
fasti	Ab Pa	124e.12	-	sC	+	*fastīn-	B2	noun	F	ī	A	sg						
mahti	Ab Pa	124e.14	-	hC	+	*mahti-	B3	noun	F	i	D	sg						
stati	Ab Pa	124e.16	-	d	+	*stadi-	B3	noun	F	i	N	pl						
sahhit	Ab Pa	124e.22	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg	
pidarpi	Ab Pa	124e.26	-	rC	+	*ḃarbja-	B1a	adj	M	ja/jō	A	sg						
zogangis	Ab Pa	124f.4	-	nC	+	*gangis	C2	verb					S7	pres	IND	2	sg	
cacarouui	Ab Pa	124f.9	-	rC	+	*garwīn-	B1a	noun	N	ja/jō	N	sg						
angi	Ab Pa	124f.14	-	nC	+	*angīn-	B2	noun	F	ī	N	sg						
cahangit	Ab Pa	124f.24	-	nC	+	*hangid	B5a	verb					W1	pres	IND	3	sg	
farsahhit	Ab Pa	125a.1	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg	
mastenti	Ab Pa	125a.6	-	sC	-	*mast-	B5a	noun	F	ī	N	sg						

						jandīn-												
farsantan	Ab Pa	125a.8	-	nC	-	*sandjan	B5a	inf						W1				
farsantan	Ab Pa	125a.9	-	nC	-	*sandida-	B5a	ppl						W1	past			
cafastinot	Ab Pa	125a.22	-	sC	+	*fastinōda-	A	ppl						W2	past			
pigankeo	Ab Pa	125a.24	-	nC	+	*gangjan-	B1a	noun	M	jan/jōn	N	sg						
dachit	Ab Pa	125a.24	-	k	-	*dakid	B5b	verb						W1	pres	IND	3	sg
canamte	Ab Pa	125a.25	-	mC	-	*namnida-	B5a	ppl						W1	past			
uuarit	Ab Pa	125a.26	-	r	+	*warid	B5b	verb						W1	pres	IND	3	sg
piuuarg-entem	Ab Pa	125b.2	-	r	+	*warjand-	B5b	ppl						W1	pres	IND		
scario	Ab Pa	125b.3	-	r	+	*skarjan-	B1b	noun	M	jan/jōn	N	sg						
ardanit	Ab Pa	125b.9	-	n	+	*panida-	B5b	ppl						W1	past			
unmahtik	Ab Pa	125b.13	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg						
dacheo	Ab Pa	125b.23	-	kC	+	*pakkjan	B1b	noun	M	jan/jōn	N	sg						
armida	Ab Pa	125c.6	-	rC	+	*armiḃō-	D1	noun	F	a/ō	N	sg						
angida	Ab Pa	125c.8	-	nC	+	*angiḃō-	D1	noun	F	a/ō	N	sg						
alti	Ab Pa	125c.9	-	IC	+	*aldīn-	B2	noun	F	ī	D	sg						
unmahtic	Ab Pa	125c.9	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg						
alti	Ab Pa	125c.9	-	IC	+	*aldīn-	B2	noun	F	ī	D	sg						
altida	Ab Pa	125c.10	-	IC	+	*aldipō-	D1	noun	F	a/ō	N	sg						
alti	Ab Pa	125c.10	-	IC	+	*aldīn-	B2	noun	F	ī	N	sg						
alti	Ab Pa	125c.11	-	IC	+	*aldīn-	B2	noun	F	ī	N	sg						
piuualcit	Ab Pa	125c.12	-	IC	+	*waltida-	B5a	ppl						W1	past			
gamahhida	Ab Pa	125c.14	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg						
ortuuuasse	Ab Pa	125c.	-	sC	-	*hwassjō-	B1a	noun	F	a/ō	N	sg						
thrauis	Ab Pa	125c.22	-	w	+	*prawis	B5b	verb						W1	pres	IND	2	sg
sahis	Ab Pa	125c.22	-	k	+	*sakis	C2	verb						S6	pres	IND	2	sg
tarni	Ab Pa	125c.25	-	rC	+	*darnja-	B1a	adj	M	ja/jō	N	sg						
aruuagit	Ab Pa	125c.25	-	g	+	*wagid	B5b	ppl						W1	past			
furilahit	Ab Pa	125d.10	-	h	+	*slahid	C2	verb						S6	pres	IND	3	sg
pifastinot	Ab Pa	125d.10	-	sC	+	*fastinōd	A	verb						W2	pres	IND	3	sg

spanit	Ab Pa	125d.13	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg
uuahsit	Ab Pa	125d.18	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
ufgangit	Ab Pa	125d.20	-	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
uuahsit	Ab Pa	125d.20	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
harti	Ab Pa	125d.23	-	rC	+	*hardja-	B1a	adj	F	ja/jō	N	sg					
umbiuuarsfi	Ab Pa	125d.24	-	rC	+	*hwarpīn-	B2	noun	F	ī	N	sg					
aruualce	Ab Pa	125e.2	-	IC	-	*waltju	B5a	verb					W1	pres	IND	1	sg
aruuaskit	Ab Pa	125e.5	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg
angan	Ab Pa	125e.6	-	nC	-	*angjan	B5a	inf					W1				
zoa- danchendi	Ab Pa	125e.9	-	nC	-	*pankjandīn-	B5a	noun	F	ī	N	sg					
moat- zouuarpidu	Ab Pa	125e.	-	rC	+	*warbiḃō-	D1	noun	F	a/ō	N	sg					
auuandi	Ab Pa	125e.22	-	nC	+	*wandju	B5a	verb					W1	pres	IND	1	sg
uuandida	Ab Pa	125e.22	-	nC	+	*wandīḃō-	D1	noun	F	a/ō	N	sg					
archanida	Ab Pa	125e.23	-	nC	+	*kanniḃō-	D1	noun	F	a/ō	N	sg					
arin	Ab Pa	125e.24	-	r	+	*arina-	A	noun	N	a/ō	N	pl					
flazzi	Ab Pa	125e.25	-	tC	+	*flattja-	B1b	noun	N	ja/jō	N	pl					
pidarpi	Ab Pa	125e.26	-	rC	+	*parbjja-	B1a	adj	M	ja/jō	A	sg					
pidarplihor	Ab Pa	125f.1	-	rC	+	*parb-ḷika-	D3	adverb									
framidichun	Ab Pa	125f.5	-	m	+	*framīḃja-	A	adj	M	ja/jō	N	sg					
alilandi	Ab Pa	125f.6	-	l	+	*ali-	B1b	adj	M	ja/jō	N	sg					
alilandi	Ab Pa	125f.6	-	nC	+	*landja-	B1a	adj	M	ja/jō	N	sg					
gihangando	Ab Pa	125f.8	-	nC	-	*hangjand-	B5a	ppl					W1	pres			
urmageo	Ab Pa	125f.9	-	gC	+	*maggjan-	B1b	noun	M	ja/jō	N	sg					
slahit	Ab Pa	125f.18	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
uuappi	Ab Pa	125f.23	-	bC	+	*wabbja-	B1b	noun	N	ja/jō	N	pl					
gasacit	Ab Pa	126a.4	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
salit	Ab Pa	126a.9	-	l	+	*salid	B5b	verb					W1	pres	IND	3	sg
casazta	Ab Pa	126a.9	-	tC	-	*sat(t)ida-	B5b	ppl					W1	past			
farsentit	Ab Pa	126a.13	+	nC	+	*sandid	B5a	verb					W1	pres	IND	3	sg
fardanchit	Ab Pa	126a.23	-	nC	+	*pankid	B5a	verb					W1	pres	IND	3	sg

kahuuerue	Ab Pa	126a.25	+	rC	-	*hwarbī	B5a	verb					W1	pres	IMP	2	sg
arlasken	Ab Pa	126b.4	-	sC	-	*laskjan	B5a	inf					W1				
festinonti	Ab Pa	126b.7	+	sC	-	*fastinōnd-	A	ppl					W2				
ganaozsgaffi	Ab Pa	126c.6	-	p	+	*skapi-	B3	noun	F	i	D	sg					
antelode	Ab Pa	126c.8	-	nC	-	*andi-	B1a	noun	N	ja/jō	N	pl					
antiprurti	Ab Pa	126c.8	-	nC	+	*andi-	B1a	noun	F	ī	N	sg					
antilodi	Ab Pa	126c.9	-	nC	+	*andi-	B1a	noun	F	ja/jō	N	pl					
zohangendi	Ab Pa	126c.10	-	nC	-	*hangjand-	B5a	ppl					W1	pres			
cauualtida	Ab Pa	126c.11	-	IC	+	*waldipō-	D1	noun	F	a/ō	N	sg					
chreftic	Ab Pa	126d.4	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
mahtic	Ab Pa	126d.4	-	hC	+	*mahīga-	D2	adj	M	a/ō	N	sg					
halsendi	Ab Pa	126d.7	-	IC	-	*halsjand-	B5a	ppl					W1	pres			
aerhafti	Ab Pa	126d.8	-	fC	+	*haftja-	B1a	adj	M	ja/jō	N	sg					
salichafti	Ab Pa	126d.22	-	fC	+	*haftīn-	B2	noun	F	ī	N	sg					
felises	Ab Pa	126d.25	+	l	+	*falisa-	A	noun	M	a/ō	N	sg					
urlante	Ab Pa	126e.2	-	nC	-	*landja-	B1a	adj	M	ja/jō	N	pl					
elilante	Ab Pa	126e.2	+	l	+	*ali-	B1b	adj	M	ja/jō	N	pl					
elilante	Ab Pa	126e.2	-	nC	-	*landja-	B1a	adj	M	ja/jō	N	pl					
carehtida	Ab Pa	126e.3	+	kC	+	*rak(k)ipō-	D1	noun	F	a/ō	N	sg					
strangi	Ab Pa	126e.10	-	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg					
antriske	Ab Pa	126e.11	-	nC	+	*andi-	B1a	adj	M	a/ō	N	pl					
camari- creozot	Ab Pa	126e.12	-	r	+	*mari- griotōda-	A	ppl					W2	past			
leodslakkeo	Ab Pa	126f.4	-	gC	+	*slaggjan-	B1b	noun	M	jan/jōn	N	sg					
scapheo	Ab Pa	126f.4	-	pC	+	*skappjan-	B1b	noun	M	jan/jōn	N	sg					
aftira	Ab Pa	126f.7	-	fC	+	*aftira-	C5	adj	F	a/ō	N	sg					
arpeo	Ab Pa	126f.9	-	rC	+	*arbjān-	B1a	noun	M	jan/jōn	N	sg					
kachlankhit	Ab Pa	126f.10	-	nC	+	*klankida-	B5a	ppl					W1	past			
kapurscaflīh	Ab Pa	126f.12	-	pC	-	*skap-līka-	D3	adj	M	a/ō	N	sg					
ainfalti	Ab Pa	126f.14	-	IC	+	*faldīn-	B2	noun	F	ī	N	sg					
ardenit	Ab Pa	126f.15	+	n	+	*panida-	B5b	ppl					W1	past			

kahangida	Ab Pa	126f.24	-	nC	+	*hangipō-	D1	noun	F	a/ō	N	sg					
fardanchendi	Ab Pa	127a.3	-	nC	-	*bankjand-	B5a	ppl					W1	pres			
kasacit	Ab Pa	127a.7	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
pilegit	Ab Pa	127a.9	+	g	+	*lagid	B5b	verb					W1	pres	IND	3	sg
pihaltit	Ab Pa	127a.9	-	lC	+	*haldid	C2	verb					S7	pres	IND	3	sg
aruualcit	Ab Pa	127a.12	-	lC	+	*waltida-	B5a	ppl					W1	past			
pidarplihor	Ab Pa	127a.18	-	rC	+	*parb-līka-	D3	adverb									
ahiro	Ab Pa	127b.2	-	h	+	*ahir-	A	noun	N	s	G	pl					
karouuida	Ab Pa	127b.4	-	rC	+	*garwipō-	D1	noun	F	a/ō	N	sg					
rachendi	Ab Pa	127b.12	-	kC	-	*rakkjand-	B5b	ppl					W1	pres			
uuarido	Ab Pa	127b.24	-	r	+	*waripō-	D1	noun	F	a/ō	N	sg					
filise	Ab Pa	127b.25	+	l	+	*falisa-	A	noun	M	a/ō	N	pl					
pirentit	Ab Pa	127c.3	+	nC	+	*randida-	B5a	ppl					W1	past			
arpinomo	Ab Pa	127c.	-	rC	+	*arbi-	B1a	noun	M	n	N	sg					
umpidarpi	Ab Pa	127c.18	-	rC	+	*parbja-	B1a	adj	F	ja/jō	N	sg					
camahhida	Ab Pa	127c.22	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
unpidarpi	Ab Pa	127d.1	-	rC	+	*parbja-	B1a	adj	M	ja/jō	N	sg					
slengistain	Ab Pa	127d.2	+	nC	+	*slangi-	B5a	noun	M	a/ō	N	sg					
tarnigo	Ab Pa	127d.	-	rC	+	*darnīga-	D2	adverb									
kaharmit	Ab Pa	127d.	-	rC	+	*harmid	B5a	verb					W1	pres	IND	3	sg
uuastiparn	Ab Pa	127d.	-	sC	+	*wasti- barna-	B1a	noun	N	a/ō	N	sg					
kapazzirot	Ab Pa	127d.	-	t	+	*batirōda-	C5	ppl					W2	past			
auuist	Ab Pa	127d.	-	w	+	*awista-	A	noun	M	a/ō	N	pl					
kamahida	Ab Pa	127d.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
kamahhida	Ab Pa	127d.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
pifillit	Ab Pa	127e.	+	lC	+	*fallida-	B5a	ppl					W1	past			
halsenti	Ab Pa	127e.	-	lC	-	*halsjand-	B5a	ppl									
pithenchi	Ab Pa	127e.	+	nC	+	*bankī	B5a	verb					W1	pres	IMP	2	sg
kamahida	Ab Pa	127e.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
inlente	Ab Pa	127e.	+	nC	-	*landja-	B1a	noun	M	ja/jō	N	pl					

kamahhida	Ab Pa	127e.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
pifallit	Ab Pa	127e.	-	lC	+	*fallid	C2	verb					S7	pres	IND	3	sg
antisc	Ab Pa	127f.	-	nC	+	*andiska-	D7	adj	M	a/ō	N	sg					
harti	Ab Pa	127f.	-	rC	+	*hardja-	B1a	adj	M	ja/jō	N	sg					
palouuic	Ab Pa	127f.	-	lC	+	*balwīga-	D2	adj	M	a/ō	N	sg					
harimanno	Ab Pa	128a.	-	r	+	*hari-	B1c	noun	M	a/ō	G	pl					
mahticlih	Ab Pa	128a.	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
magis	Ab Pa	128a.	-	g	+	*magīs	C4a	verb					PP	pres	OPT	2	sg
kafastinot	Ab Pa	128a.	-	sC	+	*fastinōda-	A	ppl					W2	past			
piscanchit	Ab Pa	128b.	-	nC	+	*sankid	B5a	verb					W1	pres	IND	3	sg
camahida	Ab Pa	128b.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
ungasaztiu	Ab Pa	128b.	-	tC	-	*sat(t)ida-	B5b	ppl					W1	past			
fasti	Ab Pa	128b.	-	sC	+	*fastja-	B1a	adj	M	ja/jō	N	sg					
anke	Ab Pa	128c.	-	nC	-	*angja-	B1a	adj	M	ja/jō	N	pl					
uuahsit	Ab Pa	128c.	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
felise	Ab Pa	128c.	+	l	+	*falisa-	A	noun	M	a/ō	N	pl					
uuarit	Ab Pa	128d.	-	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
faruuarit	Ab Pa	128d.	-	r	+	*warid	B5c	verb					W1	pres	IND	3	sg
pisprangenti	Ab Pa	128d.	-	nC	-	*sprang- jand-	B5a	ppl					W1	pres			
namin	Ab Pa	128d.	-	m	+	*namin-	B4	noun	M	n	D	sg					
inseuit	Ab Pa	128d.	+	b	+	*sabid	B5b	verb					W1	pres	IND	3	sg
hrekil	Ab Pa	128d.	+	g	+	*hragila-	A	noun	N	a/ō	N	sg					
antlangi	Ab Pa	128d.	-	nC	+	*langja-	B1a	noun	N	ja/jō	N	sg					
casacen	Ab Pa	128e.	-	tC	-	*sattjan	B5b	inf					W1				
ardanit	Ab Pa	128e.	-	n	+	*panida-	B5b	ppl					W1	past			
kistallit	Ab Pa	128e.	-	lC	+	*stal(l)ida-	B5b	ppl					W1	past			
uesacit	Ab Pa	128e.	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
kaanteomes	Ab Pa	128e.	-	nC	+	*andja-	B1a	verb					W2	pres	IND	1	pl
kasacen	Ab Pa	128f.	-	tC	-	*sattjan	B5b	inf					W1				
haarpit	Ab Pa	128f.	-	rC	+	*arbid	B5a	verb					W1	pres	IND	3	sg

casazzet	Ab Pa	128f.	-	tC	-	*sat(t)ida-	B5b	ppl					W1	past			
fardanchit	Ab Pa	128f.	-	nC	+	*bankida-	B5a	ppl					W1	past			
altirom	Ab Pa	128f.	-	lC	+	*aldira-	C5	adj	M	a/ō	D	pl					
sallent	Ab Pa	128f.	-	lC	-	*salljand	B5b	verb					W1	pres	IND	3	pl
pithechit	Ab Pa	128f.	-	kC	-	*pak(k)id	B5b	verb					W1	pres	IND	3	sg
casacit	Ab Pa	128f.	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
aehafti	Ab Pa	128f.	-	fC	+	*haftin-	B2	noun	F	ī	D	sg					
pazzirota	Ab Pa	128f.	-	t	+	*batirōd-	C5	verb					W2	past	IND	3	sg
spari	Ab Pa	128f.	-	r	+	*spari-	A	adverb									
unsamfti	Ab Pa	129a.	-	mC	+	*samftja-	B1a	adj	M	ja/jō	N	sg					
arin	Ab Pa	129a.	-	r	+	*arina-	A	noun	N	a/ō	N	pl					
slaffida	Ab Pa	129a.	-	p	+	*slapjō-	D1	noun	F	a/ō	N	sg					
unpidarpi	Ab Pa	129a.	-	rC	+	*parbja-	B1a	adj	M	ja/jō	N	sg					
aruualztom	Ab Pa	129a.	-	lC	-	*waltida-	B5a	verb					W1	past	IND	3	pl
mezzi	Ab Pa	129a.	+	tC	+	*mattja-	B1b	noun	M	ja/jō	N	sg					
mazzimos	Ab Pa	129a.	-	tC	+	*mattja-	B1b	noun	N	a/ō	N	sg					
mahti	Ab Pa	129a.	-	hC	+	*mahti-	B3	noun	F	i	D	sg					
casacit	Ab Pa	129a.	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
aruuaskit	Ab Pa	129a.	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg
duahit	Ab Pa	129a.	-	h	+	*pwahid	C2	verb					S6	pres	IND	3	sg
carechit	Ab Pa	129a.	+	kC	+	*rak(k)id	B5b	verb					W1	pres	IND	3	sg
indechit	Ab Pa	129b.	+	kC	+	*pak(k)id	B5b	verb					W1	pres	IND	3	sg
keisteole	Ab Pa	129b.	+	sC	+	*gasti-	B3	noun	M	i	G	pl					
salida	Ab Pa	129b.	-	l	+	*salijō-	D1	noun	F	a/ō	N	sg					
uuantenti	Ab Pa	129b.	-	nC	-	*wandjand-	B5a	ppl					W1	pres			
farsalit	Ab Pa	129b.	-	l	+	*salida-	B5b	ppl					W1	past			
zasacit	Ab Pa	129b.	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
piuuarpiu	Ab Pa	129b.	-	rC	+	*warbju	B5a	verb					W1	pres	IND	1	sg
decalihida	Ab Pa	129c.	+	gC	+	*dag-lik-ijō-	D3	noun	F	a/ō	N	sg					
tacolihan	Ab Pa	129c.	-	gC	+	*dag-lik-	D3	adj	N	n	N	sg					
caantida	Ab Pa	129c.	-	nC	+	*andja-	B1a	ppl					W1	past			

casacida	Ab Pa	129c.	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
farsanchit	Ab Pa	129c.	-	nC	+	*sankid	B5a	verb					W1	pres	IND	3	sg
zaslahit	Ab Pa	129c.	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
arhalsit	Ab Pa	129c.	-	lC	+	*halsida-	B5a	ppl					W1	past			
casacit	Ab Pa	129c.	-	tC	+	*sat(t)id	B5b	verb					W1	pres	iND	3	sg
pihalit	Ab Pa	129d.	-	l	+	*halid	B5b	verb					W1	pres	IND	3	sg
unsempfti	Ab Pa	129d.	-	mC	+	*samftja-	B1a	adj	M	ja/jō	N	sg					
aruuentit	Ab Pa	129d.	+	nC	+	*wandida-	B5a	ppl					W1	past			
hartem	Ab Pa	129d.	-	rC	-	*hardja-	B1a	adj	M	ja/jō	D	pl					
farthanch- idlih	Ab Pa	129d.	-	nC	+	*pānkida- lika-	B5a	adj	M	a/ō	N	sg					
ardannen	Ab Pa	129d.	-	nC	-	*pannjan	B5b	inf					W1				
unfrauuit	Ab Pa	129e.	-	w	+	*frawid	B5b	verb					W1	pres	IND	3	sg
pfantinc	Ab Pa	129e.	-	nC	+	*pandinga-	D4	noun									
sahhi	Ab Pa	129e.	-	k	+	*sakid	C2	verb					S6	pres	IND	3	sg
sarphi	Ab Pa	129e.	-	rC	+	*skarpīn-	B2	noun	F	ī	N	sg					
zaslahit	Ab Pa	129e.	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
harizoho	Ab Pa	129e.	-	r	+	*hari-tugan-	B1b	noun	M	n	N	pl					
casacida	Ab Pa	129f.	-	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg					
casazta	Ab Pa	129f.	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
casaztum	Ab Pa	129f.	-	tC	-	*sat(t)id-	B5b	verb					W1	past	IND	1	pl
steteo	Ab Pa	129f.	+	d	+	*stadi-	B3	noun	F	i	G	pl					
steteo	Ab Pa	129f.	+	d	+	*stadi-	B3	noun	F	i	G	pl					
camahhida	Ab Pa	129f.	-	k	+	*makipō-	D1	noun	F	a/ō	N	sg					
cascaphenti	Ab Pa	129f.	-	pC	-	*skapp- jandīn-	B5b	noun	F	ī	N	sg	W1	pres			
palouic	Ab Pa	129f.	-	lC	+	*balwīga-	D2	adj	M	a/ō	N	sg					
hrati	Ab Pa	130a.	-	ḅ	+	*hrapīn-	B2	noun	F	ī	A	sg					
uuaslihho	Ab Pa	130a.	-	sC	+	*hwas-lika-	D3	adverb									
suarit	Ab Pa	130a.	-	r	+	*swarid	B6	verb					S6	pres	IND	3	sg
caduadic	Ab Pa	130a.	-	ḅ	+	*ḅwapid	B5b	verb					W1	pres	IND	3	sg
gramizzot	Ab Pa	130a.	-	m	+	*gramitōd	A	verb					W2	pres	IND	3	sg

pihaltida	Ab Pa	130a.	-	lC	+	*haldjþō-	D1	noun	F	a/ō	N	sg					
kacarauuit	Ab Pa	130a.	-	rC	+	*garwja-	B1a	noun	N	ja/jō	N	pl					
sgaphen	Ab Pa	130a.	-	pC	-	*skappjan	B6	inf					S6				
arlaskit	Ab Pa	130a.	-	sC	+	*laskida-	B5a	ppl					W1	past			
unpidarpi	Ab Pa	130a.	-	rC	+	*þarbja-	B1a	adj	M	ja/jō	N	sg					
arflauuen	Ab Pa	130a.	-	wC	-	*flawwjan	B5b	inf					W1				
strangen	Ab Pa	130a.	-	nC	-	*strangjan	B5a	inf					W1				
umpihalito	Ab Pa	130a.	-	l	+	*halida-	B5b	adverb									
racheo	Ab Pa	130a.	-	kC	+	*rakkjan-	B1b	noun	M	jan/jōn	N	sg					
pigangeo	Ab Pa	130b.	-	nC	+	*gangjan-	B1a	noun	M	jan/jōn	N	sg					
fatsarpes	Ab Pa	130b.	-	rC	-	*arbja-	B1a	noun	N	ja/jō	G	sg					
pisgerito	Ab Pa	130b.	+	r	+	*skarida-	B5c	adverb									
arslahit	Ab Pa	130b.	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg
arhafit	Ab Pa	130b.	-	b	+	*habid	B6	verb					S6	pres	IND	3	sg
arhafit	Ab Pa	130b.	-	b	+	*habid	B6	verb					S6	pres	IND	3	sg
aruualcen	Ab Pa	130b.	-	lC	-	*waltjan	B5a	inf					W1				
kasacen	Ab Pa	130b.	-	tC	-	*sattjan	B5b	inf					W1				
pihalti	Ab Pa	130b.	-	lC	+	*haldīn-	B2	noun	F	ī	N	sg					
strangi	Ab Pa	130b.	-	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg					
farcertit	Ab Pa	130b.	+	rC	+	*tardida-	B5a	ppl					W1	past			
casscrafti	Ab Pa	130b.	-	fC	+	*skaftja-	B1a	noun	N	ja/jō	N	sg					
archannit	Ab Pa	130b.	-	nC	+	*kannida-	B5a	ppl					W1	past			
archnait	Ab Pa	130b.	-	nC	+	*kannida-	B5a	ppl					W1	past			
archannenti	Ab Pa	130b.	-	nC	-	*kannjand-	B5a	ppl					W1	pres			
archanniu	Ab Pa	130c.	-	nC	+	*kannju	B5a	verb					W1	pres	IND	1	sg
kalacken	Ab Pa	130c.	-	gC	-	*laggjan	B5b	inf					W1				
ardanit	Ab Pa	130c.	-	n	+	*þanida-	B5b	ppl					W1	past			
haffent	Ab Pa	130c.	-	bC	-	*habbjand	B6	verb					S6	pres	IND	3	pl
dannent	Ab Pa	130c.	-	nC	-	*þannjand	B5b	verb					W1	pres	IND	3	pl
fordampsit	Ab Pa	130c.	-	mC	+	*þampid	B5a	verb					W1	pres	IND	3	sg
anthragilot	Ab Pa	130d.	-	g	+	*hragilōd	A	verb					W2	pres	IND	3	sg

casacit	Ab Pa	130d.	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg
zasacis	Ab Pa	130d.	-	tC	+	*sat(t)is	B5b	verb					W1	pres	IND	2	sg
cacarauuit	Ab Pa	130d.	-	rC	+	*garwida-	B5a	ppl					W1	past			
aruuachit	Ab Pa	130d.	-	kC	+	*wak(k)ida-	B5b	ppl					W1	past			
speri	Ab Pa	130d.	+	r	+	*spari-	A	adverb									
arrachte	Ab Pa	130d.	-	kC	-	*rak(k)ida-	B5b	verb					W1	past			
casacis	Ab Pa	130d.	-	tC	+	*sat(t)is	B5b	verb					W1	pres	IND	2	sg
aruuantit	Ab Pa	130d.	-	nC	+	*wandid	B5a	verb					W1	pres	IND	3	sg
scaphentem	Ab Pa	130e.	-	pC	-	*skappjand-	B6	inf					S6				
kiregen	Ab Pa	130e.	+	kC	-	*rakkjan	B5b	inf					W1				
rachenteo	Ab Pa	130e.	-	kC	-	*rakkjand-	B5b	inf					W1				
strangi	Ab Pa	130e.	-	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
canamnit	Ab Pa	130e.	-	mC	+	*namnid	B5a	verb					W1	pres	IND	3	sg
spari	Ab Pa	130e.	-	r	+	*spari-	A	adverb									
fardanchenti	Ab Pa	130e.	-	nC	-	*pānkjand-	B5a	ppl					W1	pres			
cahangit	Ab Pa	130e.	-	nC	+	*hangid	B5a	verb					W1	pres	IND	3	sg
qualmida	Ab Pa	130f.	-	lC	+	*kwalīpō-	D1	noun	F	a/ō	N	sg					
qualida	Ab Pa	130f.	-	l	+	*kwalīpō-	D1	noun	F	a/ō	N	sg					
sampfti	Ab Pa	130f.	-	mC	+	*samftīn-	B2	noun	F	ī	N	sg					
rachit	Ab Pa	130f.	-	kC	+	*rak(k)id	B5b	verb					W1	pres	IND	3	sg
fala- uuisconti	Ab Pa	130f.	-	lC	+	*falw- iskōndīn-	D7	noun	F	ī	N	sg					
suache	Ab Pa	130f.	+	kC	-	*swakkjō-	B1b	noun	F	ja/jō	N	sg					
agisin	Ab Pa	130f.	-	g	+	*agisin-	A	noun	M	n	G	sg					
aigilaihi	Ab Pa	131a.	-	g	+	*agi- laika-?	A	noun	M	a/ō	N	sg					
heri	Ab Pa	131a.	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
hari	Ab Pa	131a.	-	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
uuari	Ab Pa	131a.	-	r	+	*warīn-	B2	noun	F	ī	N	sg					
agide	Ab Pa	131a.	-	g	+	*agiḡō-	D1	noun	F	a/ō	N	sg					
scafteo	Ab Pa	131a.	-	fC	+	*skafti-	B3	noun	F	i	G	pl					
uuarit	Ab Pa	131a.	-	r	+	*warid	B5c	verb					W1	pres	IND	3	sg

palouic	Ab Pa	131a.	-	lC	+	*balwīga-	D2	adj	M	a/ō	N	sg					
falcit	Ab Pa	131a.	-	lC	+	*faltid	B5a	verb					W1	pres	IND	3	sg
cafastinot	Ab Pa	131a.	-	sC	+	*fastinōd	A	verb					W2	pres	IND	3	sg
ardanit	Ab Pa	131b.	-	n	+	*panida-	B5b	ppl					W1	past			
arpi	Ab Pa	131b.	-	rC	+	*arbja-	B1a	noun	N	ja/jō	N	sg					
uuahsmida	Ab Pa	131b.	-	hC	+	*wahsmiḃō-	D1	noun	F	a/ō	N	sg					
strangi	Ab Pa	131b.	-	nC	+	*strangja-	B1a	noun	M	ja/jō	N	sg					
cafastit	Ab Pa	131b.	-	sC	+	*fastida-	B5a	ppl					W1	past			
castathafti	Ab Pa	131b.	-	d	-	*stadi-	B3	ppl					W1	past			
castathafti	Ab Pa	131b.	-	fC	+	*haftida-	B5a	ppl					W1	past			
asti	Ab Pa	131b.	-	sC	+	*asti-	B3	noun	M	i	N	pl					
scaphit	Ab Pa	131c.	-	pC	+	*skap(p)id	B6	verb					S6	pres	IND	3	sg
steti	Ab Pa	131c.	+	d	+	*stadi-	B3	noun	F	i	D	sg					
scantlih	Ab Pa	131c.	-	nC	+	*skand-līka-	D3	adj	M	a/ō	N	sg					
suuuerida	Ab Pa	131c.	+	r	+	*swariḃō-	D1	noun	F	a/ō	N	sg					
paldi	Ab Pa	131c.	-	lC	+	*baldīn-	B2	noun	F	ī	N	sg					
cramizzont	Ab Pa	131d.	-	m	+	*gram- itōnd	A	verb					W2	pres	IND	3	pl
cenim	Ab Pa	131d.	+	n	+	*tani-	B3	noun	M	i	D	pl					
casacida	Ab Pa	131d.	-	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg					
mannisliħ	Ab Pa	131d.	-	nC	+	*mannisk- līka-	D7	adj	M	a/ō	N	sg					
paldliħho	Ab Pa	131d.	-	lC	+	*bald-līka-	D3	adverb									
casacit	Ab Pa	131d.	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
casacit	Ab Pa	131d.	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
mahtikem	Ab Pa	131d.	-	hC	+	*mahtīga-	D2	adj	M	a/ō	D	pl					
fasti	Ab Pa	131e.	-	sC	+	*fastīn-	B2	noun	F	ī	N	sg					
strengi	Ab Pa	131e.	+	nC	+	*strangīn-	B2	noun	F	ī	N	sg					
cauerfan	Ab Pa	131e.	+	rC	-	*warbjān	B5a	inf					W1				
paldi	Ab Pa	131e.	-	lC	+	*baldīn-	B2	noun	F	ī	N	sg					
camahida	Ab Pa	131e.	-	k	+	*makīḃō-	D1	noun	F	a/ō	N	sg					
uuahsmida	Ab Pa	131e.	-	hC	+	*wahsmiḃō-	D1	noun	F	a/ō	N	sg					

cangit	Ab Pa	131e.	-	nC	+	*gangid	C2	verb					S7	pres	IND	3	sg
mandilot	Ab Pa	131f.	-	nC	+	*manpilōda-	A	ppl					W2	past			
capanihnot	Ab Pa	131f.	-	n	+	*banikōda-	A	ppl					W2	past			
archannit	Ab Pa	131f.	-	nC	+	*kannid	B5a	verb					W1	pres	IND	3	sg
caparit	Ab Pa	131f.	-	r	+	*barid	B5c	verb					W1	pres	IND	3	sg
danchit	Ab Pa	131f.	-	nC	+	*bankid	B5a	verb					W1	pres	IND	3	sg
tragit	Ab Pa	131f.	-	g	+	*dragid	C2	verb					S6	pres	IND	3	sg
danchent	Ab Pa	131f.	-	nC	-	*bankjand	B5a	verb					W1	pres	IND	3	pl
strangen	Ab Pa	131.2.a	-	nC	-	*strangjan	B5a	inf					W1				
uuahsit	Ab Pa	131.2.a	-	hC	+	*wahsid	C2	verb					S6	pres	IND	3	sg
scaphit	Ab Pa	131.2.a	-	pC	+	*skap(p)id	B6	verb					S6	pres	IND	3	sg
pihaftida	Ab Pa	131.2.a	-	fC	+	*haftibō-	D1	noun	F	a/ō	N	sg					
arbo	Ab Pa	131.2.b	-	rC	+	*arbjan-	B1a	noun	M	jan/jōn	N	sg					
aripeo	Ab Pa	131.2.b	-	rC	+	*arbjan-	B1a	noun	M	jan/jōn	N	sg					
urcatilih	Ab Pa	131.2.b	+	d	+	*gadi- lika-?	A	adj	N	a/ō	N	sg					
antfangida	Ab Pa	131.2.c	-	nC	+	*fangibō-	D1	noun	F	a/ō	N	sg					
agisonti	Ab Pa	131.2.c	-	g	+	*agisōnd-	A	ppl					W2	pres			
akislih	Ab Pa	131.2.c	-	g	+	*agis-lika-	A	adj	M	a/ō	N	sg					
uncaanteot	Ab Pa	131.2.c	-	nC	+	*andjōda-	B1a	ppl					W2	past			
agisonti	Ab Pa	131.2.c	-	g	+	*agisōnd-	A	ppl					W2	pres			
chreftic	Ab Pa	131.2.c	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	sg					
strengi	Ab Pa	131.2.c	+	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg					
alpeon	Ab Pa	131.2.c	-	lC	+	*albjō-	B1a	noun	F	ja/jō	D	pl					
mahtic	Ab Pa	131.2.c	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
uuahari	Ab Pa	131.2.c	-	hC	+	*wakrīn-	B2	noun	F	ī	N	sg					
zasacit	Ab Pa	131.2.d	-	tC	+	*sat(t)ida-	B5b	ppl					W1	past			
stantit	Ab Pa	131.2.d	-	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
aruuachit	Ab Pa	131.2.d	-	kC	+	*wak(k)ida-	B5b	ppl					W1	past			
farmarrit	Ab Pa	131.2.d	-	rC	+	*marrida-	B5a	ppl					W1	past			
uuerfiu	Ab Pa	131.2.d	+	rC	+	*warbju	B5a	verb					W1	pres	IND	1	sg

frauuilaose	Ab Pa	131.2.d	-	w	+	*frawi- lausa-	B2	adj	M	a/ō	N	pl						
hregil	Ab Pa	131.2.d	+	g	+	*hragila-	A	noun	N	a/ō	N	sg						
sama- haftingun	Ab Pa	131.2.e	-	fC	+	*haft-ing-	D4	adverb										
casacit	Ab Pa	131.2.e	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg	
casacit	Ab Pa	131.2.e	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg	
fallit	Ab Pa	131.2.e	-	lC	+	*fallid	C2	verb					S7	pres	IND	3	sg	
regent	Ab Pa	131.2.e	-	kC	-	*rakkjand	B5b	verb					W1	pres	IND	3	pl	
arrachida	Ab Pa	131.2.f	-	kC	+	*rak(k)ipō-	D1	noun	F	a/ō	N	sg						
garachit	Ab Pa	131.2.f	-	kC	+	*rak(k)ida-	B5b	ppl					W1	past				
samaftic	Ab Pa	131.2.f	-	fC	+	*haftūga-	D2	adj	M	a/ō	N	sg						
unpiuualcit	Ab Pa	131.2.f	-	lC	+	*waltida-	B5a	ppl					W1	past				
uuahsmida	Ab Pa	131.2.f	-	hC	+	*wahsmipō-	D1	noun	F	a/ō	N	sg						
casacida	Ab Pa	131.2.f	-	tC	+	*sat(t)ipō-	D1	noun	F	a/ō	N	sg						
cafastinot	Ab Pa	131.2.f	-	sC	+	*fastinōda-	A	ppl					W2	past				
canagalit	Ab Pa	131.2.f	-	gC	+	*naglida-	B5a	ppl					W1	past				
situhafti	Ab Pa	131.2.f	-	fC	+	*haftūn-	B2	noun	F	ī	N	sg						
unmahtic	Ab Pa	132.a	-	hC	+	*mahtūga-	D2	adj	M	a/ō	N	sg						
pisacit	Ab Pa	132.a	-	tC	+	*sat(t)id	B5b	verb					W1	pres	IND	3	sg	
uparzatit	Ab Pa	132.a	-	d	+	*tadid	B5b	verb					W1	pres	IND	3	sg	
unstatahafti	Ab Pa	132.b	-	fC	+	*haftūn-	B2	noun	F	ī	N	sg						
uuerit	Ab Pa	132.b	+	r	+	*warid	B5c	verb					W1	pres	IND	3	sg	
uuarit	Ab Pa	132.b	-	r	+	*warid	B5c	verb					W1	pres	IND	3	sg	
zaneo	Ab Pa	132.b	-	n	+	*tani-	B3	noun	M	i	G	pl						
merikerte	Ab Pa	132.b	+	r	+	*mari-	B1c	noun	F	ja/jō	A	sg						
merikerte	Ab Pa	132.b	+	rC	-	*gardjō-	B1a	noun	F	ja/jō	A	sg						
ante	Ab Pa	132.c	-	nC	-	*andja-	B1a	noun	N	ja/jō	D	sg						
uuerim	Ab Pa	132.c	-	r	+	*warīn-	B2	noun	F	ī	D	pl						
trakit	Ab Pa	132.c	-	g	+	*dragid	C2	verb					S6	pres	IND	3	sg	
ungaanteot	Ab Pa	132.c	-	nC	+	*andjōda-	B1a	ppl					W2	past				
fiantscalfih	Ab Pa	132.c	-	pC	+	*skap-līka-	D3	adj	M	a/ō	N	sg						

farscangenti	Ab Pa	132.d	-	nC	-	*slangjand-	B5a	ppl					W1	pres				
friuntscafida	Ab Pa	132.d	-	p	+	*skapiḃō-	D1	noun	F	a/ō	N	sg						
stati	Ab Pa	132.d	-	d	+	*stadi-	B3	noun	F	i	D	sg						
spanit	Ab Pa	132.d	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg	
urlanti	Ab Pa	132.d	-	nC	+	*landja-	B1a	adj	M	ja/jō	N	sg						
alilanti	Ab Pa	132.d	-	l	+	*ali-	B1b	adj	M	ja/jō	N	sg						
alilanti	Ab Pa	132.d	-	nC	+	*landja-	B1a	adj	M	ja/jō	N	sg						
spanit	Ab Pa	132.d	-	n	+	*spanid	C2	verb					S6	pres	IND	3	sg	
farslahit	Ab Pa	132.e	-	h	+	*slahid	C2	verb					S6	pres	IND	3	sg	
duruhqualit	Ab Pa	132.e	-	l	+	*kwalid	B5b	verb					W1	pres	IND	3	sg	
uualti	Ab Pa	132.e	-	lC	+	*waltīn-	B2	noun	F	ī	D	sg						
slangenti	Ab Pa	132.e	-	nC	-	*slangjandīn-	B5a	noun	F	ī	N	sg	W1	pres				
stati	Ab Pa	132.f	-	d	+	*stadi-	B3	noun	F	i	D	sg						
aruuachit	Ab Pa	132.f	-	kC	+	*wak(k)ida-	B5b	ppl					W1	past				
unfarhalit	Ab Pa	132.f	-	l	+	*halida-	B5b	ppl					W1	past				
unpidachit	Ab Pa	132.f	-	kC	+	*ḃak(k)ida-	B5b	ppl					W1	past				
alti	Ab Pa	132.f	-	lC	+	*aldīn-	B2	noun	F	ī	D	sg						
ganemnit	Isidor	7.44	+	mC	+	*namnida-	B5a	ppl					W1	past				
steti	Isidor	7.48	+	d	+	*stadi-	B3	noun	F	i	D	sg						
garauuida	Isidor	7.48	-	rC	+	*garwid-	B5a	verb					W1	past	IND	1	sg	
aengil	Isidor	7.51	+	nC	+	*angila-	A	noun	M	a/ō	N	sg						
gauuالتida	Isidor	7.51	-	lC	+	*waltiḃō-	D1	noun	F	a/ō	A	sg						
gasentit	Isidor	9.56	+	nC	+	*sandida-	B5a	ppl					W1	past				
sentidu	Isidor	9.58	+	nC	+	*sandīḃō-	D1	noun	F	a/ō	D	sg						
angil	Isidor	9.58	-	nC	+	*angila-	A	noun	M	a/ō	G	pl						
ganemnit	Isidor	9.58	+	mC	+	*namnida-	B5a	ppl					W1	past				
gafestinota	Isidor	9.59	+	sC	+	*fastinōd-	A	verb					W2	past	IND	3	sg	
garauui	Isidor	13.92	-	rC	+	*garwīn-	B2	noun	F	ī	A	sg						
stedila	Isidor	13.94	+	ḃ	+	*staḃila-	A	noun	M	a/ō	A	pl						
almahtigin	Isidor	13.99	-	hC	+	*mahtīga-	D2	adj	M	n	D	sg						

angil	Isidor	15.104	-	nC	+	*angila-	A	noun	M	a/ō	N	sg					
archennida	Isidor	15.105	+	nC	+	*kannid-	B5a	verb					W1	past	IND	3	sg
festinoda	Isidor	15.105	+	sC	+	*fastinōd-	A	verb					W2	past	IND	3	sg
archenne	Isidor	15.108	+	nC	-	*kannjan	B5a	inf					W1				
mahti	Isidor	15.109	-	hC	+	*mahtī	C4b	verb					PP	past	OPT	3	sg
angilum	Isidor	15.114	-	nC	+	*angila-	A	noun	M	a/ō	D	pl					
antdechidiu	Isidor	15.115	+	k	+	*pakida-	B5b	ppl					W1	past			
ubarhepfendi	Isidor	15.117	+	bC	-	*habbjand-	C2	ppl					S6	pres			
angilo	Isidor	15.117	-	nC	+	*angila-	A	noun	M	a/ō	G	pl					
hebit	Isidor	17.125	+	b	+	*habid	C2	verb					S6	pres	IND	3	sg
almahtiga	Isidor	17.132	-	hC	+	*mahtīga-	D2	adj	N	n	N	sg					
freuuuidha	Isidor	17.140	+	w	+	*frawiḡō-	D1	noun	F	a/ō	D	sg					
salbidhu	Isidor	19.145	-	lC	+	*salbiḡō-	D1	noun	F	a/ō	D	sg					
chinemnit	Isidor	19.149	+	mC	+	*namnida-	B5a	ppl					W1	past			
almahtic	Isidor	19.150	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
nemin	Isidor	19.151	+	m	+	*namin-	B4	noun	M	n	D	sg					
uuendu	Isidor	19.154	+	nC	-	*wandju	B5a	verb					W1	pres	IND	1	sg
nemniu	Isidor	19.160	+	mC	+	*namnju	B5a	verb					W1	pres	IND	1	sg
nemin	Isidor	19.162	+	m	+	*namin-	B4	noun	M	n	D	sg					
chinemnit	Isidor	19.165	+	mC	+	*namnida-	B5a	ppl					W1	past			
chinemnit	Isidor	21.170	+	mC	+	*namnida-	B5a	ppl					W1	past			
nemin	Isidor	21.175	+	m	+	*namin-	B4	noun	M	n	D	sg					
angilo	Isidor	21.184	-	nC	+	*angila-	A	noun	M	a/ō	G	pl					
angil	Isidor	21.185	-	nC	+	*angila-	A	noun	M	a/ō	N	sg					
chiscafti	Isidor	23.191	-	fC	+	*skafti-	B3	noun	F	i	D	sg					
mahti	Isidor	23.192	-	hC	+	*mahtī	C4b	verb					PP	past	OPT	3	sg
angil	Isidor	23.192	-	nC	+	*angila-	A	noun	M	a/ō	N	sg					
chisendit	Isidor	23.201	+	nC	+	*sandida-	B5a	ppl					W1	past			
chisendit	Isidor	25.217	+	nC	+	*sandida-	B5a	ppl					W1	past			
sendida	Isidor	25.217	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	sg
hepfu	Isidor	25.221	+	bC	+	*habbjū	B6	verb					S6	pres	IND	1	sg

bichennen	Isidor	25.223	+	nC	-	*kannjad	B5a	verb					W1	pres	IND	2	pl
sendida	Isidor	25.223	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	sg
nerrendin	Isidor	27.225	+	rC	-	*narrjand-	B5b	ppl					W1	pres			
almahtic	Isidor	27.225	-	hC	+	*almahtīga-	D2	noun	M	a/ō	N	sg					
chisendidan	Isidor	27.226	+	nC	+	*sandida-	B5a	ppl					W1	past			
almahtigin	Isidor	27.226	-	hC	+	*mahtīga-	D2	noun	M	n	D	sg					
chisendit	Isidor	27.227	+	nC	+	*sandida-	B5a	ppl					W1	past			
freuui	Isidor	27.232	+	w	+	*frawī	B5b	verb					W1	pres	IMP	2	sg
sendida	Isidor	27.237	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	sg
chisendit	Isidor	27.239	+	nC	+	*sandida-	B5a	ppl					W1	past			
nerrendeo	Isidor	27.240	+	rC	-	*narrjand-	B5b	ppl					W1	pres			
almahtighin	Isidor	29.243	-	hC	+	*mahtīga-	D2	adj	M	n	G	sg					
heftida	Isidor	29.246	+	fC	+	*haftid-	B5a	verb					W1	past	IND	3	sg
aldin	Isidor	29.252	-	lC	+	*aldin-	C1	adj	M	n	G	sg					
meghines	Isidor	31.261	+	g	+	*magina-	A	noun	N	a/ō	G	sg					
aldin	Isidor	31.262	-	lC	+	*aldin-	C1	adj	M	n	D	sg					
ferit	Isidor	31.268	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
archennenne	Isidor	31.276	+	nC	-	*kannjan	B5a	inf					W1				
chifestinode	Isidor	31.278	+	sC	+	*fastinōd-	A	ppl					W1	past			
standit	Isidor	33.279	-	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
meghin	Isidor	33.279	+	g	+	*magina-	A	noun	N	a/ō	N	sg					
nemin	Isidor	33.280	+	m	+	*namin-	B4	noun	M	n	D	sg					
archenn-emes	Isidor	33.280	+	nC	+	*kannjam-	B5a	verb					W1	pres	IND	1	pl
sendida	Isidor	33.288	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	sg
chisendida	Isidor	33.288	+	nC	+	*sandida-	B5a	ppl					W1	past			
archennanne	Isidor	33.293	+	nC	-	*kannjan	B5a	inf					W1				
meghiniga	Isidor	35.307	+	g	+	*maginīga-	A	adj	N	n	A	sg					
nemin	Isidor	35.310	+	m	+	*namin-	B4	noun	M	n	D	sg					
sendida	Isidor	37.323	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	sg
sendidon	Isidor	37.325	+	nC	+	*sandid-	B5a	verb					W1	past	IND	3	pl

chisendidin	Isidor	37.326	+	nC	+	*sandida-	B5a	ppl					W1	past			
stedi	Isidor	37.328	+	d	+	*stadi-	B3	noun	F	i	D	sg					
nemnida	Isidor	37.333	+	mC	+	*namnid-	B5a	verb					W1	past	IND	3	sg
nerrendo	Isidor	37.334	+	rC	+	*narrjand-	B5b	ppl					W1	pres			
stedi	Isidor	39.337	+	d	+	*stadi-	B3	noun	F	i	D	sg					
almahtigun	Isidor	39.343	-	hC	+	*mahtīga-	D2	adj	F	n	G	sg					
meghines	Isidor	39.344	+	g	+	*magina-	A	noun	N	a/ō	G	sg					
almahtigin	Isidor	39.345	-	hC	+	*mahtīga-	D2	adj	F	n	G	sg					
stedi	Isidor	39.348	+	d	+	*stadi-	B3	noun	F	i	D	sg					
hohsetle	Isidor	39.351	+	dC	-	*sadlja-	B1a	noun	N	ja/jō	D	sg					
angila	Isidor	39.351	-	nC	+	*angila-	A	noun	M	a/ō	N	pl					
dhehhidon	Isidor	39.353	+	k	+	*pakid-	B5b	verb					W1	past	IND	3	pl
dhecchidon	Isidor	39.353	+	k	+	*pakid-	B5b	verb					W1	past	IND	3	pl
angilum	Isidor	39.357	-	nC	+	*angila-	A	noun	M	a/ō	D	pl					
mendit	Isidor	41.362	+	nC	+	*manpid	B5a	verb					W1	pres	IND	3	sg
almahtigun	Isidor	41.366	-	hC	+	*mahtīga-	D2	adj	F	n	G	sg					
chinemnit	Isidor	43.387	+	mC	+	*namnida-	B5a	ppl					W1	past			
strengi	Isidor	43.388	+	nC	+	*strangja-	B1a	adj	M	ja/jō	N	sg					
chimanac-faldit	Isidor	43.389	-	lC	+	*faldida-	B5a	ppl					W1	past			
nemnanne	Isidor	45.401	+	mC	-	*namnjan	B5a	inf					W1				
infancnissa	Isidor	45.402	-	nC	+	*fang-nissjō-	D6	noun	F	ja/jō	A	sg					
saghida	Isidor	47.420	-	g	+	*sagid-	B5b	verb					W1	past	IND	3	sg
anghila	Isidor	47.425	-	nC	+	*angila-	A	noun	M	a/ō	N	pl					
chiscafti	Isidor	47.427	-	fC	+	*skafti-	B3	noun	F	i	N	pl					
setzan	Isidor	47.431	+	tC	-	*sattjand	B5b	verb					W1	pres	IND	3	pl
zellando	Isidor	47.432	+	lC	-	*talljand-	B5b	ppl					W1	pres			
arzelidui	Isidor	47.438	+	l	+	*talida-	B5b	ppl					W1	past			
angil	Isidor	49.444	-	nC	+	*angila-	A	noun	M	a/ō	N	sg					
forasagin	Isidor	49.444	-	g	+	*sagin-	B4	noun	M	n	D	sg					
chizelido	Isidor	49.454	+	l	+	*talida-	B5b	ppl					W1	past			

archennit	Isidor	49.455	+	nC	+	*kannida-	B5a	ppl					W1	past			
nerrendeo	Isidor	49.456	+	rC	-	*narrjand-	B5b	ppl					W1	pres			
zeli	Isidor	49.458	+	l	+	*talī	B5b	verb					W1	pres	IMP	2	sg
chizelide	Isidor	51.460	+	l	+	*talida-	B5b	ppl					W1	past			
forasagin	Isidor	51.462	-	g	+	*sagin-	B4	noun	M	n	G	sg					
chizelido	Isidor	51.464	+	l	+	*talida-	B5b	ppl					W1	past			
forasagin	Isidor	51.465	-	g	+	*sagin-	B4	noun	M	n	G	sg					
nerrendeo	Isidor	53.485	+	rC	-	*narrjand-	B5b	ppl					W1	pres			
setzida	Isidor	53.491	+	tC	+	*sat(t)id-	B5b	verb					W1	past	IND	3	sg
chiscaftim	Isidor	53.493	-	fC	+	*skafti-	B3	noun	F	i	D	pl					
nahti	MH	1.1a	-	hC	+	*nahti-	B3	noun	F	i	G	sg					
egison	MH	1.3a	+	g	+	*agisōn-	A	noun	F	n	A	sg					
hebit	MH	1.3a	+	b	+	*habid	B5b	verb					W1	pres	IND	3	sg
scheffo	MH	1.7d	+	pC	-	*skappjan-	B1b	noun	M	jan/jōn	N	sg					
mendi	MH	1.8d	+	nC	+	*manḃin-	B2	noun	F	ī	D	sg					
arlasctiu	MH	1.9b	-	sC	-	*laskida-	B5a	ppl					W1	past			
pentir	MH	1.12c	+	nC	+	*bandir-	A	noun	N	s	A	pl					
dechit	MH	2.2a	+	k	+	*pakid	B5b	verb					W1	pres	IND	3	sg
uerti	MH	2.3d	+	rC	+	*fardi-	B3	noun	F	i	G	sg					
uuechenter	MH	2.4d	+	kC	-	*wakkjand-	B5b	ppl					W1	pres			
mahtiger	MH	2.5d	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
inthebis	MH	2.7a	+	b	+	*habis	B5b	verb					W1	pres	IND	2	sg
kasalt	MH	2.8b	-	lC	-	*sal(l)ida-	B5b	ppl					W1	past			
lichamin	MH	2.8d	-	m	+	*lika- haman-	B4	noun	M	n	D	sg					
emazzigemu	MH	3.2b	+	m	-	*amitīga-	A	adj	M	a/ō	D	sg					
mahtigera	MH	3.3c	-	hC	+	*mahtīga-	D2	adj	F	a/ō	D	sg					
hensti	MH	3.3c	+	nC	+	*ansti-	B3	noun	F	i	G	sg					
lichamin	MH	3.5b	-	m	+	*lika- haman-	B4	noun	M	n	D	sg					
sceffento	MH	4.1a	+	pC	+	*skappjand-	B6	ppl					S6	pres			
emazziges	MH	4.1d	+	m	-	*amitīga-	A	adj	N	a/ō	G	sg					

mendi	MH	4.4a	+	nC	+	*manþīn-	B2	noun	F	ī	N	pl					
henge	MH	4.4c	+	nC	-	*hangjē	B5a	verb					W1	pres	OPT	3	sg
festemu	MH	4.6a	+	sC	-	*fastja-	B1a	adj	M	ja/jō	D	sg					
lichamin	MH	4.6b	-	m	+	*līka- haman-	B4	noun	M	n	D	sg					
nahtim	MH	5.1b	-	hC	+	*nahti-	B3	noun	F	i	D	pl					
hebis	MH	6.2a	+	b	+	*habis	B5b	verb					W1	pres	IND	2	sg
alliu	MH	6.2c	-	lC	+	*all- <i>iu</i>	C6	adj	N	a/ō	A	pl					
alliu	MH	6.3b	-	lC	+	*all- <i>iu</i>	C6	adj	N	a/ō	A	pl					
mahtiger	MH	6.3b	-	hC	+	*mahtīga-	D2	adj	M	a/ō	N	sg					
almahtigo	MH	6.5a	-	hC	+	*mahtīga-	D2	adj	M	n	N	sg					
alliu	MH	7.4a	-	lC	+	*all- <i>iu</i>	C6	adj	F	a/ō	N	sg					
creftim	MH	7.4d	+	fC	+	*krafti-	B3	noun	F	i	D	pl					
angila	MH	7.5a	-	nC	+	*angila-	A	noun	M	a/ō	N	pl					
slegim	MH	7.7c	+	g	+	*slagi-	B3	noun	M	i	D	pl					
namin	MH	7.9c	-	m	+	*naman-	B4	noun	M	n	D	sg					
unga- uueemmit	MH	7.10a	+	mC	+	*wamm- ida-	B5a	ppl					W1	past			
ensti	MH	8.1d	+	nC	+	*ansti-	B3	noun	F	i	D	sg					
sceffento	MH	8.2a	+	pC	-	*skapp- jand-	B6	ppl					S6	pres			
hebit	MH	8.3b	+	b	+	*habid	B5b	verb					W1	pres	IND	3	sg
elilentoe	MH	8.4d	+	l	+	*ali-	B3	verb					W2	pres	OPT	3	sg
elilentoe	MH	8.4d	+	nC	-	*landjōē	B1a	verb					W2	pres	OPT	3	sg
denchem	MH	8.5a	+	nC	-	*þankjēm	B5a	verb					W1	pres	OPT	1	pl
frecchi	MH	8.6c	+	k	+	*frakīn-	B2	noun	F	ī	D	sg					
emazzigeru	MH	8.7b	+	m	-	*amitīga-	A	adj	F	a/ō	D	sg					
emazzigeru	MH	8.8d	+	m	-	*amitīga-	A	adj	F	a/ō	D	sg					
deche	MH	9.3d	+	kC	-	*þakkjē	B5b	verb					W1	pres	OPT	3	sg
emazzigeru	MH	9.4c	+	m	-	*amitīga-	A	adj	F	a/ō	D	sg					
ufhengida	MH	10.2c	+	nC	+	*hangjō-	D1	noun	F	a/ō	A	pl					
arrette	MH	10.3c	+	dC	-	*hraddjē	B5b	verb					W1	pres	OPT	3	sg

crefti	MH	11.1d	+	fC	+	*krafti-	B3	noun	F	i	G	sg						
alliu	MH	11.3b	-	lC	+	*all- <i>iu</i>	C6	adj	N	a/ō	A	pl						
sceffant	MH	11.3c	+	pC	-	*skapp- <i>jand-</i>	B6	ppl					W1	pres				
crefti	MH	12.2d	+	fC	+	*krafti-	B3	noun	F	i	G	sg						
crefti	MH	13.3d	+	fC	+	*krafti-	B3	noun	F	i	D	sg						
kasuarztem	MH	14.4a	-	rC	-	*swartida-	B5a	ppl					W1	past				
ensti	MH	14.4c	+	nC	+	*ansti-	B3	noun	F	i	D	sg						
egislihera	MH	15.2a	+	g	+	*agis- <i>līka-</i>	A	adj	F	a/ō	G	sg						
pihebit	MH	15.2c	+	b	+	*habid	B5b	verb					W1	pres	IND	3	sg	
mendinum	MH	15.3b	+	nC	+	*manþīn-	B2	noun	F	ī	D	pl						
lichamin	MH	15.3d	-	m	+	*līka- <i>haman-</i>	B4	noun	M	n	D	sg						
egiso	MH	15.4b	+	g	+	*agisan-	A	noun	M	n	N	sg						
insueppe	MH	15.5d	+	bC	-	*swabbjē	B5b	verb					W1	pres	OPT	3	sg	
intdechis	MH	16.1b	+	k	+	*pakis	B5b	verb					W1	pres	IND	2	sg	
pleste	MH	16.3a	+	sC	-	*blastjē	B5a	verb					W1	pres	OPT	3	sg	
kahenge	MH	16.3c	+	nC	-	*hangjē	B5a	verb					W1	pres	OPT	3	sg	
kasezze	MH	16.3d	+	tC	-	*sattjē	B5b	verb					W1	pres	OPT	3	sg	
lichamin	MH	16.6b	-	m	+	*līka- <i>haman-</i>	B4	noun	M	n	D	sg						
lichamin	MH	17.1d	-	m	+	*līka- <i>haman-</i>	B4	noun	M	n	D	sg						
angilo	MH	17.3b	-	nC	+	*angila-	A	noun	M	a/ō	G	pl						
kadenni	MH	18.4b	+	nC	+	*pannjē	B5b	verb					W1	pres	OPT	3	sg	
kauuemme	MH	18.4d	+	mC	-	*wammjē	B5a	verb					W1	pres	OPT	3	sg	
feginontiu	MH	19.1c	+	g	+	*faginōnd-	A	ppl					W2	pres				
starchisto	MH	19.2a	-	rC	+	*starkistan-	C5	adj	M	n	N	sg						
chreftim	MH	19.2b	+	fC	+	*krafti-	B3	noun	F	i	D	pl						
hellauuzzi	MH	19.2c	+	lC	-	*halljō-	B1b	noun	N	ja/jō	A	sg						
chetinnu	MH	19.2d	+	t	+	*katinō-	A	noun	F	a/ō	D	sg						
sigufaginont	MH	19.3c	-	g	+	*faginōnd-	A	ppl					W2	pres				
harstant[it]	MH	19.3d	-	nC	-	*standid	C2	verb					S6	pres	IND	3	sg	

eingil	MH	19.4d	+	nC	+	*angila-	A	noun	M	a/ō	N	sg					
cremizze	MH	19.5a	+	m	+	*gramitja-	A	adj	M	ja/jō	N	pl					
angil	MH	19.6a	-	nC	+	*angila-	A	noun	M	a/ō	N	sg					
kauimizze	MH	19.6c	+	w	+	*gawi-	B1b	noun	N	a/ō	D	sg					
geumizze	MH	19.8b	+	w	+	*gawi-	B1b	noun	N	a/ō	D	sg					
mendi	MH	19.9a	+	nC	+	*manḃī-	B2	noun	F	ī	D	sg					
staffin	MH	20.3c	-	p	+	*stapan-	B4	noun	M	n	D	sg					
engila	MH	20.4a	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
lichamin	MH	20.4b	-	m	+	*lika- haman-	B4	noun	M	n	D	sg					
ubarferti	MH	21.1c	+	rC	+	*fardi-	B3	noun	F	i	D	sg					
meres	MH	21.1c	+	r	-	*marja-	B1c	noun	M	ja/jō	G	sg					
lichamin	MH	21.2a	-	m	+	*lika- ham-ilan-	D5	noun	M	n	N	sg					
engile	MH	21.3b	+	nC	+	*angila-	A	noun	M	a/ō	D	sg					
arratte	MH	21.3c	-	dC	-	*rad(d)ida-	B5b	ppl					W1	past			
starchistin	MH	21.3c	-	rC	+	*starkistan-	C5	adj	N	n	D	sg					
derpaz	MH	21.4c	+	rC	-	*parbja-	B1a	adj	N	ja/jō	N	sg					
caelilentot	MH	21.5c	+	l	+	*ali-landja-	B3	ppl					W2	past			
caelilentot	MH	21.5c	+	nC	-	*ali-landja-	B1a	ppl					W2	past			
hellacruapo	MH	21.6b	+	lC	-	*halljō-	B1b	noun	F	a/ō	D	sg					
intsperranti	MH	21.6d	+	rC	-	*sparrjand-	B5a	ppl					W1	pres			
mendi	MH	21.7b	+	nC	+	*manḃīn-	B2	noun	F	ī	D	sg					
egisin	MH	22.3a	+	g	+	*agisan-	A	noun	M	n	D	sg					
lichamin	MH	22.3b	-	m	+	*lika- haman-	B4	noun	M	n	G	sg					
kiselit	MH	22.4a	+	l	+	*salida-	B5b	ppl					W1	past			
zenim	MH	22.4b	+	n	+	*tani-	B3	noun	M	i	D	pl					
henti	MH	22.4d	+	nC	+	*handi-	B3	noun	M	i	N	pl					
ensti	MH	22.5d	+	nC	+	*ansti-	B3	noun	F	i	D	sg					
feginot	MH	22.7c	+	g	+	*faginōda-	A	ppl					W2	past			
mendi	MH	22.7d	+	nC	+	*manḃī-	B2	noun	F	ī	D	sg					

schalchilun	MH	22.8c	-	lC	+	*skalk-ilan-	D5	noun	M	n	D	pl							
heri	MH	23.4d	+	r	+	*harja-	B1c	noun	N	ja/jō	A	sg							
scepfant	MH	24.1b	+	pC	-	*skapp- jand-	B6	ppl					S6	pres					
lichamin	MH	24.3c	-	m	+	*lika- haman-	B4	noun	M	n	G	sg							
kimachida	MH	24.4d	-	k	+	*mak-ibō-	D1	noun	F	a/ō	A	sg							
pantirun	MH	24.6c	-	nC	+	*bandir-	A	noun	N	s	D	pl							
kizerrit	MH	24.8a	+	rC	+	*tar(r)ida-	B5b	ppl					W1	past					
alliu	MH	24.8b	-	lC	+	*all- iu	C6	adj	F	a/ō	N	sg							
hentriskes	MH	24.9a	+	nC	+	*andja-	B1a	adj	M	a/ō	G	sg							
chrefti	MH	24.9a	+	fC	+	*krafti-	B3	noun	F	i	A	pl							
endinum	MH	24.9c	+	nC	+	*anpja-	B1a	noun	N	ja/jō	D	pl							
megi	MH	24.10c	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg		
keterran	MH	24.10c	+	rC	-	*tarrjan	B5b	inf					W1						
hellom	MH	24.11a	+	lC	-	*halljō-	B1b	noun	F	a/ō	D	pl							
nahtlichemo	MH	24.12a	-	hC	+	*naht-lika-	D3	adj	N	a/ō	D	sg							
enti	MH	24.15b	+	nC	+	*andja-	B1a	noun	N	ja/jō	A	sg							
nahti	MH	25.2d	-	hC	+	*nahti-	B3	noun	F	i	D	sg							
terrennes	MH	25.3d	+	rC	-	*tarrjan	B5b	inf					W1						
chrefti	MH	25.4a	+	fC	+	*krafti-	B3	noun	F	i	A	pl							
uuaskit	MH	25.4d	-	sC	+	*waskid	C2	verb					S6	pres	IND	3	sg		
uuechit	MH	25.5b	+	k	+	*wakid	B5b	verb					W1	pres	IND	3	sg		
refsit	MH	25.5c	+	fC	+	*rafsid	B5a	verb					W1	pres	IND	3	sg		
refsit	MH	25.5d	+	fC	+	*rafsid	B5a	verb					W1	pres	IND	3	sg		
henin	MH	25.6a	+	n	+	*hanan-	B4	noun	M	n	D	sg							
kiuualtido	MH	26.2b	-	lC	+	*wald-ibō-	D1	noun	F	a/ō	G	sg							
meginchrefti	MH	26.3d	+	g	+	*magina-	A	noun	F	i	D	sg							
meginchrefti	MH	26.3d	+	fC	+	*krafti-	B3	noun	F	i	D	sg							
heri	MH	26.4d	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg							
meginchrefti	MH	26.5c	+	g	+	*magina-	A	noun	F	i	G	sg							
meginchrefti	MH	26.5c	+	fC	+	*krafti-	B3	noun	F	i	G	sg							

erheui	MH	26.11c	+	b	+	*habī	B5b	verb					W1	pres	IMP	2	sg
kiskenkit	MH	26.16b	+	nC	+	*skankida-	B5a	ppl					W1	past			
arheuit	Musp.	2b	+	b	+	*habid	B6	verb					S6	pres	IND	3	sg
heri	Musp.	4a	+	r	+	*harja-	B1c	noun	N	ja/jō	N	sg					
herie	Musp.	7a	+	r	+	*harja-	B1c	noun	N	ja/jō	D	sg					
engilo	Musp.	12a	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
selida	Musp.	15a	+	l	+	*salipō-	D1	noun	F	a/ō	N	sg					
hella	Musp.	21a	+	lC	-	*halljō-	B1b	noun	F	ja/jō	G	sg					
altist	Musp.	22b	-	lC	+	*aldista-	C5	adj	M	a/ō	N	sg					
paluuc	Musp.	26b	-	lC	+	*balwīga-	D2	adj	N	a/ō	N	sg					
mahtigo	Musp.	31a	-	hC	+	*mahṭiga-	D2	adj	M	n	N	sg					
kipannit	Musp.	31b	-	nC	+	*bannid	C2	verb					S7	pres	IND	3	sg
khenfun	Musp.	40a	+	mC	-	*kampjan-	B1a	noun	M	jan/jōn	N	pl					
kreftic	Musp.	40a	+	fC	+	*kraftīga-	D2	adj	M	a/ō	N	pl					
kistarkan	Musp.	42b	-	rC	-	*starkjan	B5a	inf					W1				
kiuualtit	Musp.	43b	-	lC	+	*waldid	C2	verb					S7	pres	IND	3	sg
uarsenkan	Musp.	45b	+	nC	-	*sankjan	B5a	inf					W1				
uucsteti	Musp.	46a	+	d	+	*stadi-	B3	noun	F	i	D	sg					
aruuartit	Musp.	49b	-	rC	+	*wardida-	B5a	ppl					W1	past			
kistentit	Musp.	51b	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
uallit	Musp.	54a	-	lC	+	*fallid	C2	verb					S7	pres	IND	3	sg
kistentit	Musp.	55a	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
uerit	Musp.	56a	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
uerit	Musp.	62b	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
uuartil	Musp.	66b	-	rC	+	*wardila-	A	noun	M	a/ō	A	sg					
marrit	Musp.	67b	-	rC	+	*marrid	B5a	verb					W1	pres	IND	3	sg
kitarnit	Musp.	68b	-	rC	+	*darnida-	B5a	ppl					W1	past			
stentit	Musp.	68b	+	nC	+	*standid	C2	verb					S6	pres	IND	3	sg
arheuit	Musp.	74b	+	b	+	*habid	B6	verb					S6	pres	IND	3	sg
heuit	Musp.	75a	+	b	+	*habid	B6	verb					S6	pres	IND	3	sg
herio	Musp.	75b	+	r	+	*harja-	B1c	noun	N	ja/jō	G	pl					

uerit	Musp.	77a	+	r	+	*farid	C2	verb					S6	pres	IND	3	sg
mahalsteti	Musp.	77a	+	d	+	*stadi-	B3	noun	F	i	D	sg					
engila	Musp.	79a	+	nC	+	*angila-	A	noun	M	a/ō	N	pl					
uuechant	Musp.	80a	+	kC	-	*wakkjand	B1b	verb					W1	pres	IND	3	pl
engilo	Musp.	87b	+	nC	+	*angila-	A	noun	M	a/ō	G	pl					
menigi	Musp.	87b	+	n	+	*manigīn-	A	noun	F	ī	N	sg					
resti	Musp.	89b	+	sC	+	*rastīn-	B2	noun	F	ī	D	sg					
megi	Musp.	94b	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
kitarnan	Musp.	95a	-	rC	-	*darnjan	B5a	inf					W1				
furimegi	Musp.	97b	+	g	+	*magī	C4a	verb					PP	pres	OPT	3	sg
menniski	Musp.	102b	+	nC	+	*manniskīn-	D7	noun	F	ī	D	sg					