

The Words for “Fire” in Germanic

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This article puts forth a comprehensive set of etymologies for “fire” words in the Germanic languages that descend from Proto-Indo-European (PIE) $^+péh_2-ur$. I propose that all relevant cognates are derived from the PIE holokinetic inflection, that is, $^+ph_2-ur̄$ (nominative-accusative) \sim $^+ph_2-un-$ (oblique), and that all variants in the Germanic languages arose as a result of analogical changes in the Proto-Germanic and later periods. Furthermore, these etymologies cast doubt on reconstructions that require the positing of $^+ū$ in Proto-Germanic or Proto-Indo-European. In addition to providing cause to review existing reconstructions, this article also provides a closer philological view of the evidence of cognates in Germanic.

1. Introduction.¹

The Germanic languages demonstrate a great variety of reflexes of the Proto-Indo-European (PIE) word for fire, usually cited under the reconstructed form $^+péh_2-ur̄$ (see table 1). This variety has caused difficulty in tracing the evolution from the PIE etymon to the individual reflexes in Germanic. Furthermore, some Germanic variants, such as Old English (OE) *fȳr* and Old Norse (ON) *fýr*, have been used to support reconstructions of Proto-Germanic (PGmc.) and Proto-Indo-European etyma with a long vowel. This article argues that all the Germanic reflexes of PIE $^+péh_2-ur̄$ derive exclusively from the HOLOKINETIC inflection in PIE ($^+ph_2-ur̄ \sim$ $^+ph_2-un-$) and that the variety of reflexes in the Germanic languages is the result of a series of analogical changes from the PGmc. period and later. A secondary point made here is that there are reasons to reject reconstructions involving PGmc. and PIE $^+ū$.

¹ An earlier version of this paper was first presented at the fourteenth Germanic Linguists Annual Conference in Madison, WI, May 2008. I am indebted to the two anonymous reviewers for their suggestions in the preparation of this article. Any and all shortcomings in this piece fall upon me alone.

Establishing the etymology of this word is hampered by two problems. “Fire” is one of three HETEROCLITIC nouns to have survived in Germanic (alongside “water” and “sun”). The reconstruction of heteroclitics in Indo-European as a class requires the piecing together of at times fragmentary paradigms from various languages. The etymologies presented in this article will both track the descent of these words in the Germanic languages, as well as aid in filling the gaps for the cognates in Proto-Indo-European. Another difficulty one faces in the etymology of these cognates is a number of unique phonological sequences exhibited by their reflexes. Some of these unique sequences are a consequence of the heteroclitic ablaut patterns employed by PIE $^+péh_2-ur$, for example, $^+ph_2-uōr$ (see section 3 below). Other peculiar sequences are a product of developments within Germanic; for example, the CVVC sequence in OHG *fuir* (see section 6.1 below). These phonological sequences are problematic in that there are few or no counterexamples from which one can distinguish regular from sporadic sound changes.

One further difficulty faced in the Germanic descendants of PIE $^+péh_2-ur$ is the considerable variety found among the various reflexes. There are approximately eight distinct forms to be accounted for. This article will only treat the reflexes from the earliest attested Germanic languages, unless a later form is relevant to the history of the word. Table 1 presents the words to be discussed.

| EGmc. | NGmc. | WGmc. |
|-------------------------------|--|---------------------------|
| Go. <i>fon, funins, funin</i> | ON <i>funi, fúrr, fýr,</i> <i>fýri(r)</i> | OE <i>fȳr, fīor</i> |
| | Shetl. <i>føn/fūn</i> | Ofris., <i>fiur, fiōr</i> |
| | | OLF <i>fuir</i> |
| | | OHG <i>fuir, fiur</i> |
| | | OS <i>fiur</i> |

Table 1. Cognates for “fire” in Germanic.

I begin the examination of this word’s etymology with the current reconstruction for the PIE etyma. Because the Germanic cognates are often cited as evidence that PIE possessed a variant ^+pūr , I also explore the history of some of the non-Germanic cognates in order to demonstrate that the reconstruction of PIE $^+ū$ is not necessarily warranted. I then turn to the chronological development of the reflexes in Germanic at

the Proto-Germanic level and in the individual daughter languages. In treating the development of the reflexes in the daughter languages, however, the reflexes are grouped according to their developments, rather than to their language sub-grouping. Two groupings are evident in the Germanic languages: reflexes that have forms continuing the *n*-stem of the etymon and reflexes that continue the *r*-stem of the etymon. This is particularly necessary, given that the NGmc. cognates evidence both varieties (see figure 1).

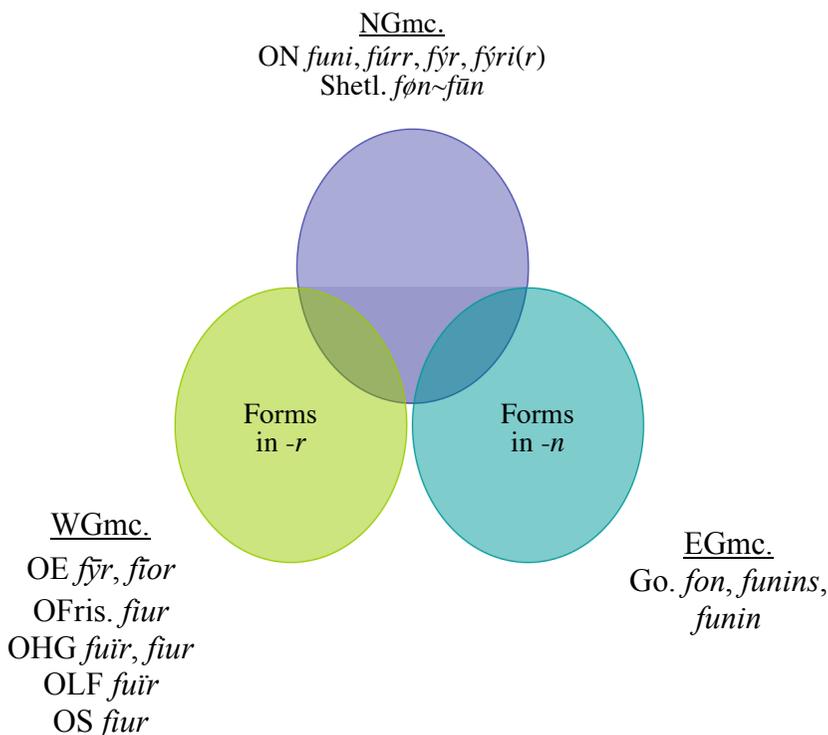


Figure 1. The distribution of forms in *-r* and *-n* in Germanic.

In addition to the phonological and morphological development of these reflexes, it is also clear in some instances that philological issues are important. This has been at times overlooked, but is necessary in order to establish and verify the state of the evidence.

2. The Proto-Indo-European Etymon.

2.1. The Proterokinetic and Holokinetic Inflections.

Proto-Indo-European seems to have had two separate inflections for the word for “fire.” The singular followed a PROTEROKINETIC inflection, with an accented full-grade root and zero-grade stem in the STRONG cases and a zero-grade root and accented full-grade stem in the WEAK cases. The second inflectional pattern, used to denote the COLLECTIVE, was holokinetic. In the locative form, from which the Gmc. dative case seems to have arisen, one would normally expect the stem to have been accented in either paradigm, with the ending in zero-grade, if present at all (Fortson 2004:108, 111, 165; Schindler 1974:10):

| PIE I | | |
|-------------|--|---|
| | Proterokinetic Singular | Holokinetic Collective |
| Strong Form | ⁺ <i>péh₂-ur</i> | ⁺ <i>péh₂-uōr</i> |
| Weak Form | ⁺ <i>ph₂-uén-</i> | ⁺ <i>ph₂-un-´</i> |
| Loc. | ⁺ <i>ph₂-uén-(i)</i> | |

Table 2. The inflection of “fire” in Proto-Indo-European.

The proterokinetic singular is attested only in Hittite *pahhur*, *pahhuenaš*, whereas all other Indo-European languages seem to reflect only the holokinetic collective. Ringe (2006:137; 1996:17–18) has surmised, based on evidence from Tocharian, that the non-Anatolian reflexes had the nom.-acc. form of the holokinetic inflection restructured to a zero-grade in the root. This originally holokinetic collective was reinterpreted as a singular and had the zero-grade form of the root, ⁺*ph₂*-leveled throughout the paradigm:²

² A parallel development is seen between Hitt. pl. *widār* (< ⁺*wed-ōr* < PIE ⁺*wéd-ōr*) and Gk. *húdōr* (< PIE ⁺*úd-ōr*) (Ringe 1996:17; Schindler 1975:3–4).

| | |
|-------------|--|
| PIE II | |
| | Holokinetic Singular |
| Strong Form | ⁺ <i>ph</i> ₂ - <i>uōr</i> |
| Weak Form | ⁺ <i>ph</i> ₂ - <i>un̄</i> |

Table 3. The development of the PIE holokinetic paradigm.

This holokinetic inflection is the most promising candidate as PIE etyma for the Germanic reflexes, as discussed in sections 3 and 4 below. Although it may appear that some Gmc. forms come from ⁺*ph*₂-*uén*- (see sections 5 and 6), it is the position taken here that they descend from the holokinetic paradigm.

2.2. Laryngeal Metathesis and ⁺*ū*.

A number of etymologies argue that the etyma of Germanic reflexes with long /u/ and /y/ in the root syllable should be traced back to a PIE *ū* which arose from metathesis of *u* and *h*₂ in the sequence ⁺*ph*₂-*u*.³ Invoking metathesis as an explanation for ⁺*ū* is problematic. Rasmussen (1989:107, following Hamp), suggests that there might have been a rule in which a laryngeal underwent metathesis with a semivowel (⁺*Hu* > ⁺*uH*) in post-consontantal position. Whereas this works for the word for 'sun', ⁺*sh*₂*u*- > ⁺*suh*₂-, when a consonant immediately follows, the same does not hold true for the word for "fire," where reflexes of the sequence ⁺*ph*₂*u*- have retained a short vowel, perhaps due to the different phonetic traits of /s/ and /p/. In his analysis of the relationship between long and short variants of /u/ in a paradigm, Schrijver (1993:525) is less interested in meta-thesis, as in the search for a factor conditioning the length of the reflex of ⁺*Hu*. From his examination of Greek reflexes, Schrijver sees stress as the conditioning factor at work. When stressed, the sequence ⁺*Hu* developed as *ū*. In pre-tonic position, however, ⁺*Hu* gives short *u*.⁴

³ See Watkins 2000:61, Beekes 1996:6, Klingenschmitt 1994:233–34, Pokorny 1959:828; similarly, though without reference to laryngeals, Pisani 1927:416–417.

⁴ In this view, the length alternation between ⁺*pūr*- and ⁺*pur*-/*pun*- in the Indo-European cognates for "fire" could be seen as seen as a reflex of accentuation. The complicating factor then would be the leveling of the zero-grade root and stem in the nom.-acc.sg. Furthermore, Schrijver (1991:535), although cautious

The only reflexes providing direct evidence of laryngeals for “fire” come, of course, from Anatolian, and in those cases the ordering is always HR and not RH.⁵ In the following section the four other branches (Greek, Italic, Armenian, and Slavic) that have potential reflexes of PIE $^+ū$ are examined.⁶ In each case I argue that the vowels in these cognates could also be possible products of independent analogical developments. Alternative explanations for reflexes of PIE $^+ū$ among Indo-European cognates in combination with other explanations for sources of long vowels should cast doubt as to whether cognates of the word for “fire” in Germanic possess historically long $^+ū$ as a reflex of either PIE $^-h_2u-$ or $-uh_2-$.

2.3. *Greek.*

Although there are several suggestions as to how PIE $^+ph_2uōr$ (nom.-acc.) and $^+ph_2unēs$ (gen.) became Gk. *pūr* (nom.-acc.sg.) and *purós* (gen.sg.), one seems to make the most sense.⁷ The key to understanding the

to note that his data are not exhaustive, asserts that it seems that in Germanic, $^-HI-$ produced a long vowel regardless of stress. The existence of words such as ON *funi*, with short vowels, brings this into question. See also Schrijver 1991:237, 512, 518, and 524–525 in particular.

⁵ Gamkrelidze & Ivanov (1995:181) suggest that $ū$ has its origin in the sequence $aHu > āu > ū$. The change $āu > ū$ seems, however, unlikely. Furthermore, the a in Hitt. *paḥḥur* does not have to reflect a syllabic laryngeal brought about by Edgerton’s Law, that is, $^+p^b h_2h_2-ur$ ($^+p^b h_2 h_2$ in Gamkrelidze & Ivanov’s notation). Hitt. *paḥḥur* could reflect earlier $^+poh_2-ūr < ^+póh_2-uḥ$, with an o -grade root, a reconstruction favored by Rasmussen (1989:77, n10).

⁶ Klingenschmitt (1994:243–44) suggested that Greek, Armenian, Umbrian, and Germanic have the innovation $^+pūr \sim ^+punēs$ (gen.) as a shared stage of development out of the proto-language. The evidence and the problems in reconstructing a common IE etymon of $^+pūr \sim ^+punēs$ are discussed below.

⁷ Bartholomae (1916:278) derives the Greek nom.-acc.sg. from PIE ^+pūōr . Gerasimov (2002:149) provides two possible explanations. The first is that after the leveling of the heteroclitic stem to $-r$, the $-u-$ of the $-uḡ$ stem was then attached to the zero grade of the root $^+peh_2-$, producing $^+ph_2u-uḡ$ under pressure from the holokinetic genitive in $-urós$. The length of the nominative form would then be a product of the first $-u-$ vowel combined with the vocalization of $-uḡ$ as $-ur$, i.e., $^+puur > ^+pūr$. His second suggestion is that after the leveling of the heteroclitic stem to $-r$, the nominative was reformed analogically from the

development into Greek is hinted at in the relationship between the long root vowel in the nominative and the short vowel in the oblique cases. For the most part, Greek has leveled out ablaut grade and length distinctions in its nominal paradigms. *N*-stem nouns, and a handful of *r*-stems such as *patēr*, exhibit suffixal full grade in the obliques and lengthened grade in the nominative (Sihler 1995:280). The first change from Proto-Indo-European to Greek involved the leveling of the *r*-stem throughout the holokinetic paradigm, producing a new genitive singular (with an *o*-grade ending as found with other athematic declensions in Greek).⁸

(1) ⁺ph₂-un-és > ⁺punés > purós

After the creation of the new oblique forms in *pur-*, the long vowel of the nominative singular could have been restructured according to a model found in the word for 'wild pig', as in example 2.⁹

gen.sg. of the collective declension, that is, ⁺purós :: ⁺pur. The vowel length then arises from the prescription against short vowels in monosyllabic nouns. As argued here, this second step generating vowel length is unnecessary, as the source of the analogical change accounts for it.

⁸ Seebold (1989:212) suggests that *pūr* is the result of the proterokinetic ⁺péh₂-ur̥, which first had the vowel of the root leveled to zero-grade after the weak form to ⁺ph₂-ur̥. The vocalization of sonorants is then altered to ⁺ph₂-ur, which then is lengthened in analogy with root nouns to *pūr*. The analogy I present is preferable on the basis that there are fewer steps in the derivation in comparison to Seebold's etymology. Occam's Razor suggests that we support the less complicated derivation in the absence of contradictory positive evidence.

⁹ The syllabification of pre-Greek ⁺suh_xós as ⁺su.h_xós prevented lengthening of the root vowel via laryngeal loss, producing pre-Greek ⁺suós (not ⁺swós). Thus, the paradigm found in *hūs*, *huós* (also *sūs*, *suós*), which is based in regular sound change, provides a starting point for the vowel alternation found in *pūr*, *purós*. This paradigm was strong enough to extend elsewhere, e.g., *mūs*, *muós* 'mouse' (presumably from PIE ⁺mūs, ⁺mūses, for example, Lat. *mūs*, *mūris*; absent analogical interference, PIE ⁺mūses would have developed into Gk. *mūós* with the substitution of the *o*-grade ending as seen elsewhere).

- (2) *huós* : *purós* :: *hūs* : X
 pig-GEN.SG fire-GEN.SG pig-NOM.SG
 X = *pūr*
 fire-NOM.-ACC.SG

In this manner one can account for the length of the root vowel without having to reference laryngeal metathesis or additional and unnecessary sound changes. Rasmussen (1996:77) sees the circumflex accent in *pūr* as evidence of an earlier disyllabic form. One should note, though, that words such as *hūs* (< PIE ⁺*suh_x-s*) and *mūs* (< PIE ⁺*mūs* < perh. ⁺*muh_x-s*) possess circumflex accent in historically monosyllabic words. These monosyllables with circumflex accent speak against the necessity of a disyllabic etymon for *pūr*, and would suggest rather that an analogical process was at work.

2.4. Oscan and Umbrian.

Given the fragmentary remains of Oscan and Umbrian, reconstruction of the history of Umb. *pir* (< earlier ⁺*pūr*) is hampered by limited data. Nonetheless, it is still possible to argue that the length of the vowel in the nom.sg. form is the outcome of independent analogical processes similar to those seen in the development of Gk. *pūr*.

The attested oblique forms of Umb. *pir* are acc.sg. *purom-e* and abl.sg. *pure-to*, which indicate a long vowel in the nominative and a short vowel in the obliques. Although one expects neuters to have identical forms in the nom. and acc.sg., Umb. acc.sg. *purom* is a more recent formation derived from the abl.sg. in analogy with masc.acc.sg. in *-om* (Buck 1904:129). It appears from the abl.sg. *pure* that the Umbrian favored the holokinetic paradigm, as with the other non-Anatolian Indo-European languages that reflect this word. In its evolution to the attested Umbrian forms, the *r*-stem of the nominative/accusative was leveled throughout the paradigm.¹⁰ One can then view the pre-form of *pir*,

¹⁰ Walde (1927:II,14) argued that *pir* is the reflex of ⁺*pūōr*, where the zero-grade of the root was leveled throughout the paradigm from the holokinetic obliques. One difficulty with this view is that the Sabellic change of *ō* to *ū* (which would have transformed ⁺*pūōr* to ⁺*pūūr*, whence ⁺*pūr*) occurred after the shift of *ū* to *ī* (a counter-feeding ordering). The Umbrian outcome from PIE ⁺*pūōr* would have been *pūr*, not *pir*.

Sabellic ^+pūr , as the product of analogy with other root nouns where a long vowel in the nom.sg. alternated with a short vowel in the obliques, see Umb. gen.pl. *nerum* and dat.pl. *nerus* on the one hand and Osc. *nír* (< earlier Sabellic ^+nēr) 'man' on the other (Buck 1904:129; cf. Sihler 1995:280).¹¹ Although forms for the entire paradigm of either Umb. *pir* or Osc. *nír* are not attested, we can conjecture that an analogy would have been possible to produce Sabellic ^+pūr :

- (3) ^+nere : ^+nēr :: ^+pure : X
 man-ABL.SG man-NOM.SG fire-ABL.SG
 X = ^+pūr > Umb. *pir*
 fire-NOM.SG

2.5. Classical Armenian.

Evidence available from Arm. *howr* 'fire, nom.sg.', and *hnoc* 'oven' (< $^+hunóc^ha-$) (Klingenschmitt 1994:243) is of limited value in determining vowel length, as PIE $^+ū$ and ^+u (along with PIE $^+ō$) merge into Arm. /u/ (transliterated as <ow>).¹² The variation of *howr* 'fire, nom.sg.' and *hroy* 'fire, gen.sg.' is less indicative of vowel length as it is of earlier Armenian accentuation prior to loss of unaccented syllables. A number of other nominal paradigms exhibit the same *u* ~ zero alternation in their paradigms (cited here in the nominative and genitive): *k'own* ~ *k'n-oy* 'sleep' (< PIE $^+swopnos$), *lowc* ~ *lc-oy* 'yoke' (< PIE ^+yugom), and *dowstr* ~ *dst-er* 'daughter' (< PIE $^+d^hug̃h_2tēr$) (Schmitt 1981:38–39). Again it is possible that, as described in sections 2.3 and 2.4 for Greek and Umbrian, Classical Armenian *howr* ~ *hroy* is the product of an analogical reformation of the nominative-accusative singular after the model of pre-existing paradigms. In short, one cannot be guaranteed that *howr* indeed reflects earlier $^+ū$, as it could be the product of analogy or even conceivably derive from the short *u* of the oblique cases leveled throughout the paradigm.

¹¹ Problematic here is that <e> could also represent a long vowel in Umbrian (Meiser 1986:44–45), although historically one would expect a short vowel in these forms.

¹² See also Classical Arm. *howr* 'nom.sg.' ~ *hroy* 'gen.sg.' (Schmitt 1981:38). Arm. *howr* was also conjugated according to the *o*-stem paradigm (Schmitt 1981:96).

Klingenschmitt's (1994:234) reconstruction of ${}^+pūr \sim {}^+punés$ from Greek, Italic, Armenian, and Germanic is problematic. Although each daughter family appears to reflect the vowel alternations these etyma would have produced, it is nonetheless a possibility that the reflexes are products of nearly identical, though independent changes. Furthermore, one must still bring ${}^+pūr \sim {}^+punés$ into accord with the data from Anatolian, such that all reflexes can be explained from a common ancestor, PIE ${}^+péh_2-ūr$ and ${}^+péh_2-ūr̄$. The change from PIE ${}^+péh_2-ūr̄ \sim {}^+ph_2-un-és$ to ${}^+pūr \sim {}^+punés$ carries with it two difficulties. First, in positing a vowel alternation in ${}^+pūr \sim {}^+punés$ we cannot be certain that the ablaut relationship ${}^+e \sim {}^+ē$ and ${}^+o \sim {}^+ō$ would be applicable to the vocalic variants of semi-vowels. Taking the general rules of Indo-European SAMPRASARAṆA into account, we might expect the ${}^+u$ of ${}^+punés$ to have been treated as a consonant in secondary derivatives, rather than as a vowel. An analogical reformation of ${}^+punés$ should have produced ${}^+pēy-r$, or possibly, though less likely ${}^+pūē-r$ (provided also that the heteroclysis is preserved).

The second difficulty lies in the analogical innovation and its chronology relative to the leveling of the consonant stem. In Greek, Italic, and Armenian, the *r*-stem forms of the paradigm became the norm. However, the Germanic cognates demonstrate that leveling of the paradigm as *r*-stems or *n*-stems must have taken place separately in each individual language. For Germanic to have preserved the *r*-stems and *n*-stems as morphemes separate from the root and ending, we must suppose the same for its etymon. Producing ${}^+pūr$ from ${}^+punés$ analogically from paradigms with a similar vowel alternation seems all the more unlikely, as it would require a parsing of the oblique into root and stem as *pu-n-*, and applying ablaut patterns to a non-canonical CV root, rather than interpreting ${}^+pu-$ as the zero-grade of a more regular CVC root shape.

That four branches of Indo-European possess words which look to be derived from a common ancestor ${}^+pūr$ (Gk. *pūr*, Umbr. *pir*, Arm. *howr*, and ON. *fúrr*) is not sufficient evidence for the reconstruction of ${}^+pūr$ in non-Anatolian Indo-European. In the cases of Greek and Umbrian, there is sufficient reason to surmise that in each case a new form ${}^+pūr$ had been created based on models present in the languages, which were not present in the proto-language. In the case of Armenian we may imagine the same, though we are hampered by the Armenian vowel mergers on the one hand, and the lack of sufficient examples of root noun paradigms

on the other. Finally, as seen below in section 6, there are reasons to view the existence of long *u* in the Germanic reflexes as products of independent phonological developments and analogical restructuring in late stages of the daughter languages.

2.6. Slavic.

Along with Greek, Italic, Germanic, and possibly Armenian, Slavic appears at first glance to preserve reflexes of earlier ⁺*pūr* in Cz. *pýř* 'glowing embers', Cz. *pýřiti* and Slov. *pýřit'* *sa* 'to redden', and OSorb. *pyrić* 'to heat, melt', among others (Vasmer 1964–1973:419). As seen in sections 2.3 and 2.4 above, however, the long vowel in Slavic could be an independent development due to analogical change. Balto-Slavic is characterized by "neo-lengthened-grade" reflexes of PIE ⁺*i* and ⁺*u* (Fortson 2004:367; Carlton 1990:82); for example, Pol *rydz* 'lactarius deliciosus' (a reddish-hued mushroom) < earlier *rydź-* < PIE ⁺*h₁reud^h-* 'red' (Carlton 1990:91). Examples 4a–c exemplify the Slavic lengthening of PIE ⁺*u*. One will note that the PIE roots below possess no laryngeals and close in obstruents, which would preclude any possible lengthening of preceding vowels by laryngeals in suffixes or endings:

- (4) a. OCS *dyšati* 'breathe, blow'
 < PIE ⁺*d^hues-* (LIV 160; IEW 268–271)
- b. OCS *gybati* 'collapse, decay'
 < PIE ⁺*g^(u)eub^h-* (LIV 188; IEW 450)
- c. ORuss. *prysnuti* 'spray'
 < PIE ⁺*preus-* (LIV 493–44; IEW 809–10, 846)

As the above sections have indicated, there are alternative explanations to reconstruct a long *u* in the PIE etymon for "fire." The possibility exists that these similar reflexes are simply the products of coincidental developments in languages which possessed similar lexical items and similar grammatical paradigms.¹³ I argue below (section 6) that

¹³ Wood (1899:317–318) suggests that the word for "fire" itself does not go back to Indo-European times; however, this is perhaps an extreme standpoint.

apparent Gmc. reflexes of $^+ū$ could be the result of separate phonological and analogical changes.

3. Developments from Proto-Indo-European to Proto-Germanic.

As discussed above in section 2.1 the non-Anatolian Indo-European languages seem to have abandoned the old singular proterokinetic paradigm and replaced it with the formerly collective holokinetic paradigm (see tables 2 and 3). Application of relevant sound laws, as Proto-Germanic develops, should present us with the expected paradigm of $^+f̥wōr$ in the nominative and accusative, and $^+fun-$ (< PIE $^+ph_2-un-$) elsewhere.¹⁴ Beekes (1996:6) points out that one would expect the sequences $^+ph_2-ūV-$, e.g., the proterodynamic genitive $^+ph_2-ūén-s$, to have produced a vocalized laryngeal reflex, yielding PGmc. $^+faw-$. Were the laryngeal to have vocalized normally, we should expect PIE $^+ph_2-ūōr$ to have become PGmc. $^+fāwōr$ which, in turn, should have produced forms along the lines of Go. ^+fawar and OE ^+fēar .

One possible explanation for the loss of the laryngeal is to be found in PGmc. $^+swīn-a-$ (n.) ‘pig’ < PIE $^+suh_2-īn-om$ (syllabified as *su.h₂ī.nom*). Between Proto-Indo-European and Proto-Germanic one would suspect an epenthetic bilabial glide to have been inserted in the hiatus between the first two syllables, that is, $^+su(w)īn-$, after which the *Cuw* sequence resolved to *Cw*. The same process might have operated in cases of Lindeman’s Law variants as well. As a monosyllable with an initial *Cw* cluster, PIE $^+ph_2-ūōr$ could have had the variant $^+ph_2-uūōr$. The laryngeal in $^+ph_2-uūōr$ would then be lost as it was in all prevocalic

¹⁴ Bammesberger (1990:205) reconstructs PGmc. $^+f(w)ō̄$ from PIE $^+ph_2(u)wōr$; presumably, the nom.-acc. of Bammesberger’s reconstruction had already been shifted over to the *n*-stem paradigm. This leads to further complications in his explaining Go. $fōn$ < $^+fō̄$ as the product of analogy with *watō̄*, *watins* along the lines of *watins* : *funins* :: *watō̄* : $fōn$. The equation of *watins* and *funins* should have produced $funō̄$. The presence of a nasal in Go. $fōn$ would suggest that the *-n* is the product of an analogical change after the loss of final nasals in Proto-Germanic. Brugmann attempts to explain the difference between $fōn$ and *watō̄* by deriving $fōn$ from earlier $fōni$ (1913–1914:312)

Bammesberger (1990:205) accounts for the forms with *-r* as reflexes of PGmc. ^+fewur derived from the PIE proterokinetic nom.-acc. singular, $^+péh_2-w_f$, as does Seebold (1989:212). However, PIE $^+éh_2$ normally becomes PGmc. $^+ō̄$, not PGmc. ^+e .

environments. Subsequent to laryngeal loss, the pre-Gmc. $^+pu\bar{u}\bar{o}r$ became $^+p\bar{u}\bar{o}r$, just as Pre-Gmc. $^+su(w)\bar{i}n-$ became PGmc. $^+sw\bar{i}n-$ (Ringe 2006: 121–22).

Go. *fōn* suggests that ^+w was lost after the labio-dental fricative ^+f and before the long, rounded vowel $^+ō$.¹⁵ There are no other examples of w in the same environment to determine if this change is sporadic or regular, though this change would not be surprising (Ringe 2006:136–137). The PIE locative form, $^+ph_2-u\bar{e}n-(i)$, should have entered Proto-Germanic as $^+fwin(i)$; however, the absence of any such reflex suggests that the oblique forms were leveled to $^+fun-$ according to the forms possessed by the genitive. Whether this took place in Pre-Germanic or Proto-Germanic is indeterminable. We may thus suggest the paradigm in table 4 for the word for “fire” in Proto-Germanic.

| PGmc. Stage I | |
|---------------|---------------|
| Strong Form | $^+f\bar{o}r$ |
| Weak Form | $^+fun-$ |

Table 4. The stem variants of “fire” in Proto-Germanic, stage I.

4. Developments within Proto-Germanic.

Before splitting into its daughter languages, the word for “fire” underwent several changes during the Proto-Germanic period. I would like to argue that it is during this period that the various Germanic reflexes ultimately arise. There are essential problems to deal with:

- the existence of stems in $^+fu-$ along side forms arising from $^+fui-$ (section 4.1)

¹⁵ Klingenschmitt (1994) sees Go. *fōn* and its lack of u or w not as a reflex of PIE $^+ph_2-u\bar{o}r$, but rather as a newer analogical innovation. The model for the restructuring, however, is not attested in Germanic, as he points out. Rather, Klingenschmitt sees a potential source for analogy in unattested reflexes of PIE $^+d^h\bar{g}^h\bar{o}m$ ‘earth, nom.sg.’ and $^+d^h\bar{g}^hm-és$ ‘gen.sg.’ into Gmc. as $^+g\bar{o}n$ nom. \sim *guniz* gen. (with n leveled from the nominative). Klingenschmitt then makes the analogy that:

$$^+guniz : ^+funiz :: ^+g\bar{o}n : X \\ X = f\bar{o}n$$

- the origin of the oblique stem ⁺*fun-* and addition of *-in* to it, that is, Go. *funins* and ON *funa* (both gen.) (section 4.2)
- the retention of the vowel *ō* in Go. *fōn* (section 4.2)
- the leveling of *-r* and *-n* in two respective paradigms (section 4.3)

Below we see that the first three items above are interconnected and that they precede the fourth item.

4.1. Extension of the *e*-Grade *n*-Stem Suffix.

Proto-Germanic inherited from PIE the forms for “fire” designated here as stage I (see table 4). Its subsequent development into the attested Germanic word forms was most likely the result of two factors: the salience of the *n*-stem forms of the heteroclitic inflection as *n*-stems, on the one hand, and the unusual shape of a zero-grade *n*-stem in the singular, on the other. Later leveling of the heteroclitic stem in either *-r* or *-n* indicates that the stem consonants were still treated as morphological equals within Proto-Germanic. The equivalence of *-r* and *-n* as stems also means that the roots of the PGmc. word for “fire” were parsed as ⁺*fō-* and ⁺*fu-*, respectively.

Association of the oblique cases with the regular *n*-stem inflection opened the door to an analogical reformation of ⁺*funiz* and ⁺*funi*. These analogical reformations replaced the unusual zero-grade *n*-stem of ⁺*fun-* with the more typical suffix of *n*-stem singulars, ⁺*-in-*.¹⁶ One can make the following analogy with the PGmc. neuter noun ⁺*hert-in-* ‘heart’:

$$(5) \quad \begin{array}{l} \text{+hert-} : \text{+hert-in-} :: \text{+fu-} : \text{X} \\ \text{X} = \text{+fu-in-} \end{array}$$

As this analogical process would have only affected *n*-stem forms, the nom.-acc. ⁺*fōr* would have remained unchanged. At the end of the process, Proto-Germanic would have possessed two distinct inflections for “fire,” the older paradigm (stage I) with zero-grade *n*-stems, and the newly formed paradigm (stage II) with Gmc. reflexes of *e*-grade *n*-stems:

¹⁶ Seebold (1989:212) also expects Gmc. ⁺*fuins*, but fails to connect ⁺*fuins* with OHG, OLF *fuir*. The leveling of the *e*-grade *n*-stem affected another heteroclitic noun in Germanic; for example, Go. *watō* (nom.-acc.) ~ *watins* (gen.).

| | Stage I | Stage II |
|-----------|---------------------------|----------------------------|
| Nom.-Acc. | ⁺ <i>fōr</i> | ⁺ <i>fōr</i> |
| Gen. | ⁺ <i>funiz</i> | ⁺ <i>fuiniz</i> |

Table 5. The stem variants of "fire" in Proto-Germanic, stage II.

As I argue below, the newly created form ⁺*fuin-* is the source for the NWGmc. words for "fire" in *-r*. Alternate explanations for ⁺*fuin-* are problematic. Rasmussen (1989:77, n10) argues for a derivation of PGmc. ⁺*fuin-* from a Lindeman's Law variant of the oblique proterokinetic inflection in PIE, that is, ⁺*ph₂u₂én-*.¹⁷ The operation of Lindeman's Law with bilabial glides possesses few unambiguous case examples, and what little data there are would suggest ⁺*fwin-* as the expected Gmc. outcome of PIE ⁺*ph₂u₂én-* (Ringe 2006:121–122, 277).¹⁸ Voyles (1992:238; also section 6.3 below) looks to a pre-Germanic form of ⁺*pú-er-* as a possible source of Gmc. ⁺*fuir-*, from which he derives ON *fýr*. However, ⁺*pú-er-* is an unlikely source, because it is evident that the leveling of *-r* in the paradigm takes place after the Proto-Germanic period. Beekes (1996:6) also attempts to derive ⁺*fuin-* from the proterokinetic inflection, though with a metathesized laryngeal and analogically reintroduced *n*-stem suffix, ⁺*puHen-*. In a sense, Voyles and Beekes approach what the correct processes probably were; however, their relative chronologies for when these changes occurred are off. Ringe (2006:277) proposes that ⁺*fuin-* derives from ⁺*funin-* via dissimilatory deletion of the first *-n-*, a change that might better be explained in another manner, discussed below in 4.2.

4.2. Blending of the Two Paradigms.

In addition to accounting for the origin of forms based in ⁺*fuin-*, substitution of PGmc. ⁺*-in* for ⁺*-n* in the oblique cases also motivates the creation of the pre-forms of Go. *funins* (gen.), *funin* (dat.) as well as ON *funi*, *funa* 'flame'.¹⁹ Coexistence of competing oblique bases ⁺*fun-* and

¹⁷ Gerasimov (2002:149) also supports Rasmussen's etymology.

¹⁸ For another critique of Rasmussen, see also Beekes 1996:6.

¹⁹ Lehmann (1986:120) views the root vowel of Go. *funins* and *funin* as long, that is, *fūnins* and *fūnin*, in order to tie the Gothic obliques to NWGmc. forms with long vowels such as ON *fýrr*, *fúrr*, and OE *fȳr*, deriving Gmc. *ū* from PIE ⁺*eh₂u/ah₂u*, a view similar to Gamkrelidze & Ivanov's (1995:181), as discussed

⁺*fuin-* creates an environment in which a form such as ⁺*funin-* could easily have arisen as a result of a speaker's uncertainty regarding which of the two forms should be used. One could characterize this phenomenon as hypercorrection where the speaker, in doubt regarding the form of the oblique ending, uses both.²⁰ Hock (1986:169) notes in reference to

above. This change, though, is dubious, as elsewhere in Germanic PIE ⁺*eh₂u* has not become *ū*. The development of another heteroclitite in Germanic speaks against this: PIE ⁺*séh₂uel* > Go. *sauil* (Lehmann 1986:297); see, also, OHG *houwan*, OE *hēawan*, ON *hoggva* 'hew', and Go. *hawi* 'hay', all from PIE ⁺*keh₂u-* (Rix & Kümmel 2001:345–346; Pokorny 1959:535; Lehmann 1986:181). If Lehmann views the development of PIE ⁺*eh₂w* as distinct from PIE ⁺*eh₂u*, the problem is still not resolved, as this would require a resyllabification of PIE ⁺*péh₂-ur* to ⁺*péh₂-ur* (see also Beekes 1996:5–6).

²⁰ Pokorny (1959:828) suggests a similar derivation, except that he places it in a pre-Germanic context where he sees Go. *funin* as a reflex of the cross between the locative ⁺*puǵéni* and the genitive ⁺*pun-és*.

Seebold (1989:212) sees *funins* as the expected consequence of a leveling process: "Bei der Beseitigung der *n*-Stämme mit schwundstufigem Suffix ist dann das zu erwartende ⁺*funs* nicht zu ⁺*fuins* (was systematisch gewesen wäre), sondern verständlicherweise zu *funins* ausgeglichen worden." [With the removal of the *n*-stems with zero-grade suffix the expected ⁺*funs* was not then leveled to ⁺*fuins* (which would have been systematic), but rather understandably to *funins*.] Because not every form in every case is affected by this change one might prefer the term "blending" over "leveling", as Seebold sees it.

Bammesberger (1991:205) also suggests a similar origin with one key difference. Rather than seeing ⁺*puǵén-* and ⁺*pun-* as two differently ablauted members of one declension, Bammesberger suggests that Go. *funin-* has as its etyma the PGmc. oblique of the proterokinetic singular, ⁺*fenz* (< ⁺*f(w)enz* < ⁺*f(u)wen-z* < ⁺*puǵén-*), merged with the oblique of the holokinetic collective, ⁺*fun-ez*. For the explanations of Bammesberger (1991) and Pokorny (1959) to be correct, both must posit proterodynamic forms, which otherwise would not be evidenced outside of Anatolian. Although there is the possibility that proterodynamic forms survived in Germanic, we might explore other avenues of explanation. Moreover, the cause for merging the base of the genitive and the base of the dative/locative while not affecting the nominative-accusative (Pokorny) would be unclear. Similarly Bammesberger's merger of ⁺*fen-* (with loss of /w/) and ⁺*fun-* presents problems in producing the precursor to Go. *funin-* because the addition of ⁺*-en-* to ⁺*fun-* requires the back formation of a nominal quasi-root ⁺*f-* and its equation with the base ⁺*fun-*. The genesis of ⁺*funin-* from

analogical change that “traces consist in the coexistence of the old form with the innovated form [...]. Doublets of this sort are very common as transitional stages in all analogical change. Occasionally, however, they may persist for a longer period. In such cases, they are often subject to the analogical process of blending [...].”

Such a process is observable also in two Latin reflexes of IE heteroclites: *iecur* ~ *iocineris* and *iter* ~ *itineris*. In order for *itineris* to have come about, a third, unattested form ⁺*iteris* must be assumed. For a time two paradigms coexisted, older *iter* ~ ⁺*itinis* and newer *iter* ~ *iteris*. Latin speakers formed a new genitive by attaching the newer *-eris* onto the preexisting *itin-* stem (Sihler 2000:85). It is reasonable to treat PGmc. ⁺*funin-* as the product of a similar process (see table 6).

| | Stage I | Stage II | Stage III |
|-----------|---------------------------|--|--|
| Nom.-Acc. | ⁺ <i>fōr</i> | ⁺ <i>fōr</i> ⁺ <i>fōr</i> | ⁺ <i>fōr</i> ⁺ <i>fōr</i> |
| Gen. | ⁺ <i>funiz</i> | ⁺ <i>funiz</i> ⁺ <i>fuīniz</i> | ⁺ <i>funiniz</i> ⁺ <i>fuīniz</i> |

Table 6. The stem variants of “fire” in Proto-Germanic, stages I–III.

The interpretation above has two benefits:

- It accounts for the two stems ⁺*fu-n-* and ⁺*fu-in-*.
- It provides for the extension of the *e*-grade *n*-stem endings to only the oblique forms, while retaining the original ablaut in the nom.-acc. form, without having to recast the word as an *n*-stem.

We should take heed to note, however, that the innovation of ⁺*funin-* involves the double use of an *n*-stem, and not the reanalysis of the word’s root as ⁺*fun-*, to which an *n*-stem ending is added.²¹ The reasoning behind this is that reanalysis of ⁺*fun-* with *-n* as part of the root rather than of the stem would suggest that ⁺*fun-* was no longer perceived as possessing an

⁺*fun-* and ⁺*fuin-*, on the other hand, is based on the rational proportions of ⁺*fu-* : ⁺*n* :: ⁺*fu-* : ⁺*-in*.

Klingenschmitt (1994:234) reconstructs the PGmc. dative as ⁺*fuini* (though one would expect ⁺*fwini* as discussed above) and sees Go. *funin* as an analogical restructuring of dat. ⁺*fuini* with the gen. ⁺*funiz*, Go. *funins* being a further analogical product from the dat. *funin*.

²¹ This certainly happened in the generation of ON *funi*.

n-stem. If speakers no longer perceived it as an *n*-stem, reanalysis as a root-noun would seem more logical, and not the addition of another *n*-stem. Reanalysis of the root would require the paradoxical state of simultaneously belonging to an *n*-stem inflection and not belonging to an *n*-stem inflection.

4.3. Leveling of Stem throughout Paradigms.

As mentioned above, this heteroclitic noun remained saliently heteroclitic at the earlier stages of Proto-Germanic. Only later did speakers level both stem consonants such that the heteroclitism disappeared. This is also indicated by the ordering of the steps. For example, reflexes based on ⁺*fuir-* (OHG *fuir*, OE *fūr*, OFris, OS, and OHG *fiur*, ON *fúrr*, *fýr*, and *fýri*) must have had their *-r* replace *-n* after the spread of *-in* to forms in ⁺*fun-*. Otherwise we might expect forms such as ⁺*funir-*, which is not evidenced. Nonetheless, a few matters remain unclear. First, it is unclear whether these levelings took place toward the end of Proto-Germanic, or whether the leveling took place independently among the daughter languages. One should note, though, that in order for the stems to be leveled throughout the paradigms, two things are required:

- There must have been two separate paradigms, with homophonous forms in the nom.-acc. singular, that is, ⁺*fōr* ~ *funiniz* and ⁺*fōr* ~ ⁺*fuiniz*, as illustrated in stage III.
- The stem consonants must have been salient morphological units with respect to their roots at the time of leveling.

The first point is suggested by the ways various dialect groupings of Germanic preserved the paradigms: East Germanic preserved only *n*-stem varieties, West Germanic preserved *r*-stem varieties, and North Germanic preserved both, though with sociolectally restricted usage. Had we been faced with a situation in which there was only one nom.-acc. form, but multiple obliques (rather than two homophonous nom.-acc. forms) at the point during which ⁺*fōr* became ⁺*fōn*, then there would have been no way for the *-r* to spread to ⁺*fuiriz*. The converse, however, is still possible. Forms like ⁺*fuiriz* could have taken on *-r* prior to the change from ⁺*fōr* to ⁺*fōn*. It would be helpful to have a surviving reflex of ⁺*fōr*;

however, none exists. Reflexes bearing *-r* in Northwest Germanic represent the only traces that it had existed.²²

In order for leveling to have taken place at all (that is, the change from *-r* to *-n* and from *-n* to *-r*), a notion of morphological equivalency must have been in play. Although the changes between stage I and stage II, where the oblique stem *-n* was replaced by its more common form *-in*, suggest a connection to *n*-stem nouns, the word(s) for “fire” remained heteroclitic. Only later is there an indication that forms such as *funin-* were treated as *n*-stem nouns, as indicated by the ON *funi* (as discussed in 5.3. below).²³

| | Stage III | Stage IV |
|-----------|--|--|
| Nom.-Acc. | ⁺ <i>fōr</i> ⁺ <i>fōr</i> | ⁺ <i>fōn</i> ⁺ <i>fōr</i> |
| Gen. | ⁺ <i>funiniz</i> ⁺ <i>fuīniz</i> | ⁺ <i>funiniz</i> ⁺ <i>fuīriz</i> |

Table 7. The stem variants of “fire” in Proto-Germanic, stages III & IV.

One may speculate that the motivation behind the direction of leveling in each paradigm was driven, in part, by the double-marked stems of ⁺*funin-*. As these stems have predominantly more “n” than ⁺*fōr* ~ ⁺*fuīn-*, it is natural to see the *-n* leveled into the nom.-acc., producing ⁺*fōn*. Conversely, in the context of two competing heteroclitic paradigms, the domination of one paradigm by the *n*-stem blocks, in a sense, the leveling of the *n*-stem throughout the competing paradigm of ⁺*fōr* ~ ⁺*fuīn-*. Therefore, when leveling does take place, it is the *r*-stem which prevails. The leveling of the stem consonants is a prerequisite for the reformation of these words as members of other inflectional categories in all Germanic languages except Gothic.

²² Klingenschmitt (1994:234) sees WGmc. ⁺*fuir* as the leveling of the *r*-stem to his reconstruction of the PGmc. dat. ⁺*fuini*, which he interprets as an extension of PIE ⁺*ph₂u_uén-i*.

²³ That is, we have the first indication that ⁺*funin-* was analyzed as root ⁺*fun-* + suffix *-in-*.

5. Development of Forms with /-n/ within EGmc. and NGmc.

5.1. Gothic.

Besides Toch. A *puwar* and Toch. B *pwar*, Gothic is the only other historically attested Indo-European language to preserve a clear reflex of the vocalism in PIE $^+ph_2\text{-}\acute{u}\acute{o}r$. Provided that the leveling of the *n*-stem in the paradigm is not an independent innovation in Gothic, which the data from ON would suggest it is not, the Gothic forms are more or less the same as their PGmc. predecessors, with necessary phonological changes deleting the final unstressed vowels in inflections:

| | PGmc. | Go. |
|-----------|-----------------|---------------|
| Nom.-Acc. | $^+f\acute{o}n$ | <i>fōn</i> |
| Gen. | $^+funiniz$ | <i>funins</i> |
| Dat. | ^+funini | <i>funin</i> |

Table 8. The development from PGmc. stage IV to Gothic.

A more problematic cognate of Go. *fon* is Shetl. *føn*, a taboo replacement for “fire.”²⁴ Shetl. *føn* is first attested in Edmondston’s (1866:36) thesaurus of Shetlandic and Orkney Norn, cited as *fūn* with the note that the vowel’s pronunciation is a long /y/, as found in French. Jakobsen (1928:205) cites it later under the form *føn*. There are a couple of ways of explaining a form such as *føn* ~ *fūn*. The pre-Norn form of both could be either ON $^+f\acute{o}n$ or $^+f\acute{u}n$.²⁵ If we consider $^+f\acute{u}n$ as the preform, then we are forced to provide an explanation of the *n*-stem and the *ū* (which would have to have come from ON *fúrr*). This course of explanation is fraught with *ad hoc* changes. One would have to ask

²⁴ The survival of these words in Norn is tied to their having been employed as replacements for the everyday word *fire* by Shetlandic fisherman at sea. Jakobsen (1928:xx) explains that “the superstition of the fishermen, now almost vanished, according to which a great many things could not be spoken of at sea by their ordinary names, but only by circumlocutions, has saved from destruction very many old words and roots that would otherwise have been entirely lost.” See also Jakobsen 1897:82ff., 94.

²⁵ For example, ON *móðr* > Shetl. *mūd*, *mød*, ON *úró* > *ūrū*, *ūrø*; ON *ú* > Shetl. *ū*; e.g., *bū-* (< ON *bú*), *rūg* (< ON *hrúga*), and *tūn* (< ON *tún*), but Shetl. *grøt* (cf. Icel. *grútr*) (Jakobsen 1928:xlvi).

whether ^+fún is the product of carrying the vowel of *fúrr* over to *funi* and turning it from an *n*-stem to an *a*-stem noun, or whether it is the product of carrying the *-n-* of *funi* over to *fúrr* despite the fact that neither word exhibits heteroclisis, among other problems? Following Edmondston's (1866:36) interpretation of *fún* as a variant of Shetl. *fona* (< ON *funi*), one might also see it as the product of open-syllable lengthening followed by apocope. This is not without problems, as one must contend with the survival of *fona* without lengthening and apocope. If, however, we look to hypothetical ON ^+fón as the pre-form of Shetl. *føn* ~ *fün*, then the possibility exists that PGmc. ^+fōn , as found in Go. *fon*, survived in North Germanic in the remote islands to the north of Scotland, preserved only as a taboo variant in the speech habits of fishermen when away at sea. Caution is warranted here, though, as the amount and quality of data available on Shetlandic Norn is lacking.

5.2. Old Norse.

Apart from Shetl. *føn* (which suggests that PGmc. ^+fōn was not eliminated from North Germanic by the developments portrayed in table 9) the usual *n*-stem formation found in Old Norse was recast as an *n*-stem noun, albeit with a gender change from neuter to masculine and standardized PNorse $^+an-$ < PGmc. $^+on-$.²⁶ This need not have occurred as a result of analogy with ON *eldr* (Pokorny 1959:828), but rather because the overwhelming majority of *n*-stems are masculine. This occurred when subjected to the analogical reformation in 6. There are no traces of the *n*-stem inflection in West Germanic, which only provides evidence of this change as occurring in North Germanic, though it could have conceivably happened at any point from the late PGmc. period on.

| | | | | | | | | |
|-----|--------|--------------|---|-----------------|----|--------------|---|---|
| (6) | PNorse | <i>guman</i> | : | <i>guma</i> | :: | ^+funan | : | X |
| | | man-DAT.SG | | man-NOM.SG | | flame-DAT.SG | | |
| | | | | X = <i>funa</i> | | flame-NOM.SG | | |

²⁶ PNorse *n*-stem forms are cited to illustrate more fully the progression from Proto-Germanic to Old Norse.

| | PGmc. | PNorse ²⁷ | ON |
|-----------|----------|----------------------|------|
| Nom.-Acc. | +fōn | +funa | funi |
| Gen. | +funiniz | +funan(n) | funa |
| Dat. | +funini | +funan | funa |

Table 9. The development from PGmc. stage IV to Old Norse.

ON *funi* ‘fire, flame’ continues to exist in Modern Icelandic, despite *eldur* remaining as the default word for “fire.” The *n*-stem forms are also attested as late as the 18th to 19th centuries in Norn and Norn remnants in the Shetland Islands. In Norn one finds reflexes of ON *funi* as Shetl. *fona* (with variants *fenna*, *finna*, *fenni*, and *finni*).

6. Development of Forms with /-r/ within Northwest Germanic.

Among the NWGmc. languages forms built off of the *r*-stem variant survive. However, prior to historical attestation, the original nom.-acc. form +*fōr* fell to the wayside, as the oblique root was leveled throughout the paradigm. The resulting NWGmc. reflexes come to fall together with the neuter *a*-stem paradigms after they lose stem vowels. Backformation in analogy with root nouns is the first step in this process.

(7) +*mūsiz* : +*mūs* :: +*fuīriz* : X
 mouse-GEN.SG mouse-NOM.SG fire-GEN.SG

X = +*fuīr*
 fire-NOM.SG

The root-noun inflection is the only one available that can account for the loss of +*fōr*, as it is the only other paradigm to overlap in endings in the oblique and the nominative cases as +*fuīr* ~ +*fuīriz*. After the leveling of the *r*-stem, the *-r* ceased to be perceived as a stem and was analyzed as part of the root. Given that the NGmc. and WGmc. forms share this innovation, it is likely that this stage of leveling took place relatively early. It is entirely possible that the replacement of +*fōr* by +*fuīr* took place in a late stage of Proto-Germanic; however, such a process must have taken effect after the leveling of *-r* (see table 10).

²⁷ PNorse forms are cited from Krause 1971:125.

| | PGmc. | NWGmc |
|-----------|--------|--------|
| Nom.-Acc. | +fōr | +fuīr |
| Obl. | +fuīr- | +fuīr- |

Table 10. The development from PGmc. stage IV to NWGmc.

As with other root nouns, the genitive ending found in forms such as ON *fýres* and OE *fýres* is carried over from the *a*-stem declension.

6.1. Old High German, Old Low Franconian, and Old English.

The Old High German corpus presents us with the best direct evidence of former *+fuīr*. This variant is present in OHG texts from the eighth century to the mid-ninth century, after which point one finds only OHG *fiur* (Braune 1987:52), for example, in the *Abrogans*²⁸, as well as the *Regula Benedictorum*²⁹, *Tatian*³⁰, the *Weißburger Katechismus*, and the *Muspilli*³¹. Of these texts, however, *Muspilli* 59a is of particular interest, as the manuscript, *Cod.monac.lat.* 14098, preserves the spelling *uugⁱr*, which likely indicates a disyllabic pronunciation.³²

²⁸ *fiur* 58,11 Pa, Kb, Ra; 118,24 Pa; and *fiurstat* = Lat. *bustum* 58,6 Pa, Kb, Ra (Splett 1976:443). Ra, however, has *fuirtstat* with extra *t* (Splett 1976:114).

²⁹ *Ben.Reg.* 7,25 (fol. 46): “*kesuahtoos unsih...fuire unsih ersuahtos, soso fuire ist ersuahhit silbar*” (Daab 1959:32).

³⁰ In *Tatian* one finds both *fuir* (13,15; 13,23; 13,24; 41,7; and 167,5) and *fiur* (76,4; 76,5; 77,4; 92,2; 95,4; 95,5; 95,5; 108,7; 136,3; 147,2; and 152,6). Scribe α (as determined by Sievers 1892) uses only *fuir*, and scribes β and ζ use both *fuir* and *fiur*. All other scribes use *fiur* exclusively.

³¹ Verses 10a, 21a, 56a, and 59a.

³² The <g> in *uugir* probably represents an epenthetic [j] serving as hiatus filler, as found elsewhere in Old High German, e.g., *scrūt* vs. *scrītgit* ‘cries’, *fīant* vs. *vīgandun* ‘enemy’, and *frīēr* vs. *frīgēr* ‘free masc.nom.sg.’ (Braune 1987:110). One would, of course, expect a bilabial glide in epenthesis after [u]. One does find the graphemes <g> and <h> where one would expect a [w], though normally where a [w] had been historically present (Braune 1987:106). See also Armbrorst (1979) for a brief analysis of the problem of *w*-epenthesis in OHG hiatus. One possible solution might be that epenthesis follows umlaut and that

Old Low Franconian also preserves a reflex of unmetathesized ⁺*fuir*. The OLF Psalms of the Diez Manuscript preserve five examples of *fuir*: Psalms 57.9, 65.10, 65.12, 67.3, and 73.7, in all four grammatical cases.³³ I would take the MS spelling at face value, representing [fuir] or something similar, rather than viewing the sequence <ui> as a grapheme for a long high front rounded vowel. Fortunately, problems in the interpretation of the graphemic data, that is, whether *fuir* represents [fuir] or [fy:r], are not an issue here, as the likeliest source for [fy:r] would have been [fuir].³⁴

OE *fȳr* is also a reflex of ⁺*fuir*.³⁵ This form alongside the ON forms *fȳr*, *fúrr*, and *fýri(r)* have been the main reason for the positing the existence of historical *ū* in this word's etyma.³⁶ Although *i*-umlaut is certainly at work here producing the front rounded vowel, I think it likeliest that the length of this vowel (and that of ON *fȳr* below) is the product of coalescing vowels. As Winter (1965:192–193) points out, the vowel sequence *-ui-* is unusual in Germanic and was likely restructured to [iw] (see section 6.2). Despite the rarity of the *-ui-* sequence in Germanic, the development of *-ui-* > *ȳ* in Old English is paralleled in the loanword from Old Irish *druí* 'druid, sorcerer' > OE *drȳ* 'sorcerer'. One may assume a near identical, though independent, sequence of events for the change from ⁺*fuir* to ON *fȳr*, discussed below in section 6.3.

6.2. Old Frisian, Old High German, Old Saxon, and Anglian OE.

Whereas Old English and Old Norse dealt with the unusual CV-VC sequence present in ⁺*fuir* by the coalescing of syllables, the remaining

uugir represents phonetic [fyjir], rather than [fujir]. The spelling of OHG *fuir*, however, is not an attempt to reflect a long [y] as Seebold (1989:212) claims.

³³ The gen.sg. *fuiris* preserved in Ps. 67.3 is emended from the MS reading of *furris* (Kyes 1969:69).

³⁴ Kyes (1967:672) reads the spelling *fuir* as an attempt on the part of the scribe to reflect a front rounded vowel from earlier ⁺*fuwir* < ⁺*fuwer*. However, ⁺*fuwer* must be rejected as an etymon for reasons presented above.

³⁵ Klingenschmitt (1994:234) also derives OE *fȳr* from earlier ⁺*fuir*.

³⁶ Watkins (2000:61) sees OE *fȳr* as an *i*-stem derivation of PIE ⁺*pūr*, and Pokorny (1959:828) sees it as having undergone *i*-umlaut from the dat.sg., which is then leveled as the root.

WGmc. forms “solve” the unusual syllable sequence by metathesis of the two elements, as first pointed out by Winter (1965:192–93).³⁷ Here one finds OFris., OHG, and OS *fiur*. Old Frisian³⁸ and Old Saxon³⁹ exhibit only the metathesized forms. As mentioned above in section 6.1. OHG *fiur* tends to dominate and is the sole attested form by the end of the ninth century.

Old English seems to have used *fȳr* almost exclusively. There is, however, one possible remnant of a metathesized form more similar to its continental cognates, OS, OFris., and OHG *fiur*. Verse 45b of the Old English *Riming Poem* cited without emendation from the *ASPR* edition of the *Exeter Book* (Krapp & Dobbie 1936:168) in the context of ll.44b–47a reads:

| | |
|-----------------------------------|-------------------------|
| | Gewiteð nihtes in fleah |
| se ær in dæge wæs dyre, | scripeð nu deop feor, |
| brondhord geblowen, ⁴⁰ | breostum in forgrowen, |
| flyhtum toflowen. ⁴¹ | |

³⁷ This was also noted by Klingenschmitt (1994:234).

³⁸ Patrizia (1990:296–297) derives OFris. *fior* from PIE ⁺*pewōr*, which, as shown above, cannot be the case.

³⁹ *Heliand* 1954a, 2144b, 2460a, 2572b, 2602b, 2639a, 3079a, 3383a, 3395a, 3604, 3698b, 4282b, 4366b, 4372b, 4374a, 4420b, 4441b, 4812b, 4944a, and 4966b; *Genesis* 773a, 775a, 885a, and 901a.

⁴⁰ It is likely that *geblōwen* ‘having bloomed’ is a scribal introduction for *gebrōwen* ‘having brewed’ due in no small part to *geblowen* in v.47b. The *Riming Poem* demonstrates a strong tendency to match all consonant clusters, in addition to the traditional /s/ + stop cluster matching found in traditional Germanic alliterative verse (Lehmann 1970:438). Some deviations from the consonant cluster matching in the *Riming Poem* correlate with textual problems (43b, 46a, and 58a) suggesting that these are instances of faulty manuscript transmission. The problematic reading of *geblowen* in 46a is removed by emending the cluster to *br-*. As such we would read *gebrōwen* as the past participle of class VII Anglian verb *brōwan* ‘to brew’, which corresponds to the class IV West Saxon *brōwan* ~ *browen*; see class IV WS *cnōdan* and *snōwan* vs. class VII Angl. *cnōdan*, *snōwan* (Campbell 1959:311–312).

⁴¹ “He who was dear in the day, departs by night in flight, writhes now deep [in fire], a hoard of flames having [brewed up], having grown excessively in the

The lack of rhyme between half lines causes line 45 to stand out in the *Riming Poem*.⁴² In addition to the absence of end-rhyme, 45b is also metrically deficient. At the very least the verse lacks an unstressed syllable after *deop* and/or *feor*. A hypermetric off-verse would not be out of the question, as 45a is a relatively rare instance of weak hypermetric on-verse and the verb-initial syntax of 45b is in line with typical hypermetric constructions.

Given verse 45b's metrical and morphosyntactic deficiencies, let us assume that *dyre* of 45a represents something close to the original rhyme-pair of line 45.⁴³ The MS spelling of this word, a reflex of Proto-Germanic **diur-ja-/*diuz-ja* 'dear', would be typical of late West-Saxon (Campbell 1959:126–128).⁴⁴ This spelling, though, reflects perhaps the last stage in the poem's transmission, as clues in the poem's rhymes point to an original composition in an Anglian dialect (Fulk 1992:365).⁴⁵ The Northumbrian cognate of IW-S *dȳre* would have been *d̄ore*, and a Mercian form could have been either *dēore* or *d̄ore* (Brunner 1965:113). Taking the first half of the rhyme pair as either *d̄ore* or *dēore* we may posit a possible match with *f̄ore* or *fēore*, as the case may be.⁴⁶ End

breast, having flowed apart in flights" (my translation; brackets around emended portions).

⁴² Verses 2a, 6b, 18b, 22a, 26b, 45b, 53b, 64a, 69b, 73b, 75b, 79b fail to rhyme. In many cases they correlate to textual problems within the poem.

⁴³ Early editors such as Etmüller (1850) and Grein (1858), as well as Craigie (1931), have read *feor* as meaning "fire." They preferred, however, the West-Saxon form, restoring the line so that it rhymes *dȳre* ~ *fȳre*.

⁴⁴ Here *dȳre* stands as a IWS spelling of eWS *d̄ere*, reflecting the *i*-umlaut of earlier **d̄ior-*. Umlauting of *īo* did not take place in Anglian dialects (Campbell 1959:81).

⁴⁵ Klinck (1992:16–17) sees indicators of an original composition in the Northumbrian dialect, based on the reduction of verbal endings, interchange of <eo> and <ea> graphemes for diphthongs, and vocabulary. Recently Abrams (2007:2) pointed out the difficulties in emendations based on presumed dialect in a manuscript whose text is predominantly West Saxon; however, his concerns are more focused on issues of scribal practice than on identifying the original dialect of composition.

rhyme and sense could be introduced if we suppose the original composition of verse 45b to have been along the lines of the following:

*scriþeð nu deop on feore*⁴⁷

Why OE *fīor* would have surfaced only in this text is tied, in part, to the same reason that Old Norse retained a multitude of cognates (see in particular section 6.3). In the OE *Riming Poem* the formal poetic requirements (in this case, end rhyme) held a dominant position over lexis. The poet employed here a perhaps less common, though understandable, variant of more usual *fȳr* in order to meet the requirements of both semantics and rhyme.

6.3. ON Forms in -r.

Old Norse preserves the greatest variety of reflexes of "fire." In addition to *funi*, *funa* examined above in section 5.2., Old Norse preserves three reflexes of PGmc. **fuir-*: *fúrr*, *fȳr*, and *fýri(r)*. Of these three, *fúrr* and *fýri(r)* are likely innovations within North Germanic alone. Unlike *funi*, these three words had a nearly exclusive poetic usage, which explains in part their variety and survival. The switch to ON *eldr* as the default lexical item for "fire" enabled the earlier synonyms to take on a

⁴⁶ Sievers (1886) rejects the possibility of *feore* representing a by-form of WS *fȳr*: "Dies *feóre* gleich *fȳre* zu setzen, also dem ags. eine dem ahd. alts. *fiur* entsprechende nebenform *feór* zuzuschreiben, wird schwerlich angehn, da diese form sonst nirgends vorkommt, wenigstens aus dem compositum *feórstudu*, *-studu* [*destina feurstund* in den alten glossen am schlusse des hymnus Cædmons im Ely MS., *obstipum feorstuþu* in den Cleopatraglossen...] wol kaum entnommen werden kann, da dieses wort 'querbalken, stützbalken' bedeutet. Es bleibe also wol nur *feór* als dativ von *feorh* übrig." [Equating this *feóre* with *fȳre*, that is, ascribing to Old English a secondary form corresponding to OHG, OS *fiur*, will proceed with difficulty, as this form appears nowhere else, least of all can it be taken from the compound *feórstudu*, *-studu* [*destina feurstund* in the old glosses at the conclusion of Caedmon's Hymn in the Ely MS., *obstipum feorstuþu* in the Cleopatra glosses...], as this word means 'cross-beam, joist'; *feór* remains then only as the dative of *feorh*.]

⁴⁷ *on feore* would be preferable to *in feore* (see Macrae-Gibson 1983:32–33, 48–50), as *on* is the preposition demonstrated in the phrase *on fyre* as found in *Gen.* 322, 437, 487; *Dan.* 350, *MB20* 148, and *Run.* 16, whereas *in fyre* is nowhere attested in the same sense.

secondary role as poetic vocabulary.⁴⁸ In West Germanic, where reflexes of PGmc. **fuir-* remained the default lexical item for “fire,” this secondary role as poetic vocabulary was less likely, hence the presence of only two variants, whose differences are purely phonological in nature. Given the demands of skaldic poetry, it would have been advantageous to possess synonyms with varying syllable numbers, weights, and vocalic qualities for internal rhymes. In eddic poetry the only variants exhibited are *funi* and *fúrr*. The *ja*-stem variant, *fýri(r)*, is found three times in the corpus, and only in the works ascribed to one *skáld*, Einarr Gilsson. Each cognate is examined and discussed in turn below.

Viðbótarþulr pp.2 (Pl IV pp.2) is home to three of the synonyms, *fýr*, *funi*, and *fúrr*, in lines 3, 7, and 8, respectively. This stanza, found among a listing of 60 *heiti* for “fire”, contains the only attested use of ON *fýr* and is extant in only two manuscripts of the *Prose Edda* (AM 748 and AM 757):

Læygr vaf'rlogi
linnr ok farri
brandr **fýr** túsi
brími nertill.
viti eimyria
velann fasti
fvni hyrr fæðir
fvrr ok eisa.⁴⁹

⁴⁸ The several surviving forms in Shetlandic Norn are also preserved on account of their secondary usage. These *hāf*-words, ‘sea-words’ or ‘lucky-words’, are created in manners similar to skaldic metaphors and circumlocutions (Jakobsen 1897:83–84). Other ‘lucky-words’ for Shetl. Eng. *fire* are *birtek* (< ON *birta*, *birti* ‘brightness, shining’ + dimin.), *brenna* (< ON *brenna* ‘burning, fire’), *brenner* (< ON *brennir* ‘burner, fire’), *eld* (< ON *eldr* “fire”), *emek* (< ON *eimr* ‘steam’ + dimin.), *ilder* (< ON *eldr* with fused masc.nom.sg. ending), and *ilden* (< ON *eldin* masc.acc.sg. with fused suffixal def.art.) (Jakobsen 1897:94, 1928). In some cases it is apparent that the *hāf*-words are adaptations of poetic vocabulary found elsewhere in Old Norse.

⁴⁹ See Finnur Jónsson 1912–1915 [1965]:684.

Other than the presence of a long, rounded front vowel, there is no reason to suspect that *fýr* reflects *fýrr*, a masc. *i*-stem variant of earlier **fūr*.⁵⁰ It is apparent from preceding *brandr* and following *tvísi* that these words appear in the nominative form. One would expect the scribe to have written *fýrr*, had it been masculine.⁵¹ A more tenable solution lies in Egilsson's (1913–1916:163) note: "*eller fýr ntr?*" Whether PGmc. *fūr*- would have become ON *fýr*, just as it had become OE *fȳr*, is unknown, as no additional examples or counterexamples are available to determine the development of PGmc. *-ūi-*. It seems likely, though, that ON *fýr* reflects earlier **fūr*- rather than metathesized **fiur*-.⁵² Barring analogical influence from words such as *dýr* 'animal' (PGmc. **diuz-a-*), one would expect a metathesized variant **fiur*- to have become ON **fjór*, cf. ON *stjór*, *þjór*.⁵³

Rather than viewing *fýr* as an *i*-stem derivative of *fúrr*, we should entertain the converse; namely, that *fúrr* is derived from *fýr*. Voyles (1992:238) suggested that the [y] of *fýr* was reinterpreted as a morphologically conditioned umlaut, and that masculine *fúrr* is the product of

⁵⁰ The interpretation is taken by Ringe (2006:277), Seebold (1989:212), and S. Egilsson-F. Jónsson (1913–1916:164). The comment in the *Lexicon Poeticum* that "når der undertiden i hds skrives *fyr-*, er det en unøjagtig skrivemåde; dog har der i senere tider eksisteret en form *fýrr*..."[While *fyr-* is occasionally written in manuscripts, that is an incorrect spelling; however there existed a form *fýrr* in later manuscripts...] S. Egilsson-F. Jónsson (1913–1916:158) seems to mistake the ages of the manuscripts as an indicator of the chronological relation between *fúrr* and *fýr*.

⁵¹ The positing of *fýrr*, as e.g., in De Vries (1961:149) is counterindicated by the number of *ad hoc* assumptions that must be made: the introduction of *-r* in the manuscripts (AM 748 and AM 757) for the presumed haplography of the scribe, the unmotivated switch from neuter to masculine gender, the positing of an *i*-stem declension variant, and positing the existence of a historical **ū*.

⁵² The survival of OHG *fūr* would also suggest that the metathesis to *fiur* is a later occurrence isolated to West Germanic.

⁵³ The same could be said for DeVries' (1961:149) reconstruction of PGmc. **feuraz* as the etymon of *fýr*. Along with the expectation of ON **fjór* as the expected reflex of PGmc. **feuraz*, there is no manuscript evidence for the existence of a masculine *fýrr* rather than neuter *fýr*.

Rückumlaut.⁵⁴ This would be possible in analogy with the dative singular of root nouns:

- (8) *fæti* : *fótr* :: *fýri* : X
 foot-DAT.SG foot-NOM.SG fire-DAT.SG
 X = *fúrr*
 fire-NOM.SG

Subsequently *fúrr* became an *a*-stem noun.⁵⁵ ON *fúrr* continued to survive in the taboo vocabulary of Shetlandic fisherman as Shetl. *furin* (= *fúrin*), *foorin* with the earlier suffixed definite article fused to the noun, that is, from ON *fúrrinn* (nom.sg.) or *fúrin* (acc.sg.) (Jakobsen 1928:204).

Just as *fýri* (dat.sg.) made it possible to recast earlier *fýr* as *fúrr*, so too was it possible to create a new variant, modeled after *ja*-stems:

- (9) *stýri* : *stýris* :: *fýri* : X
 rudder-DAT.SG rudder-GEN.SG fire-DAT.SG
 X = *fýris*
 fire-GEN.SG

⁵⁴ One anonymous reviewer suggested that a simpler explanation for the *fýr*- ~ *fúr*- split lies in the possibility that they arose through conditioned allomorphy within the original *fu(w)ir*- paradigm, nom.-acc. *fu(w)ir*- > *fj(w)ir*- (umlaut) > *fýr*- (contraction), whereas obl. *fu(w)irV*- was subject to syncope > *fu(w)rV*- > *fúr*- avoiding umlaut because of the short vowel. Although this vector of change is certainly possible, it does raise additional questions. For example, if intervocalic *w* is hiatus filler, would it still be present after syncope, when the conditioning factor for hiatus filler is absent? Also, the simplicity gained in this paradigm split, might be offset by the additional the proportional analogy required in order to establish *fúr*- in its own paradigm. Furthermore, one must still provide an explanation for the gender difference between ON *fýr* and *fúrr*.

⁵⁵ The change to a masculine gender could be explained by the analogy with a root noun. As root nouns seem to have been exclusively masculine or feminine in Germanic, preservation of the original neuter gender would have been unlikely.

Here one should note that all three occurrences of ON *fýri(r)* are not only restricted to poetic usage, but to the poetry of one fourteenth century individual, Einarr Gilsson.⁵⁶ The three attested instances share other common points as well: they are all in the genitive (leaving us unable to tell whether the noun is neuter or masculine); they all occur in kennings for “man;” they are all found as the final cadence of an off-verse; and they all participate in *aðalhending* rhyme. No other variant of “fire” could have stood in the same position. *Funa* lacks the requisite syllable weight and rhyme, and neither *fýrs* nor *fúrs* would provide a trochee, though they provide *aðalhending* and *skothending*, respectively. One might question whether this form would have been part of the

⁵⁶ *EGils* 1, 26; 1,21; and 2,8 cited from Finnur Jónsson’s (1912–1915[1965]) edition (my translation for each). In each instance the kennings are close to one another, where FIRE of X = ‘gold’, and the Y of GOLD = ‘man’.

EGils 1, 26:

*Okkr skal eigi þykkja
ofgóðr, himins, fróðum,
þræll kvað þengils, bolli,
þýðr, guðs vera lýðum,
því gjøf, sem helzt hæfir,
hlýrns, greiðum vit, fýris,
meiðr hygg at því móðu
mætr, heimstöðu gæti.*

“‘We shall not find the cup (given) for God’s peoples to be good’ said the kind servant of the King of heaven; we arrange the gift which especially befits the guardian of the homestead of the heavenly light. Think about this, a worthy tree of the **fire** of an elf.” Here “fire of an elf” = ‘gold’, thus “tree of gold” = ‘man’.

EGils 1, 21;

*Kænn nam Kolbein finna
kafs rýrandi fýris*

“The clever diminisher of the **fire** of water took to finding Kolbeinn.” Here “fire of water” = gold, thus “diminisher of gold” = ‘man’.

and *EGils* 2, 8

*Þórir frétti af stilling stýri
stýrilátan hafnar fýris*

“Þórir quietly asked the pliable stealer of the fire of the harbor.” Here “fire of the harbor” = gold, thus “stealer of gold” = ‘man’.

common poetic stock, or whether it was perhaps the novel coinage of this one clever *skáld* who required a trochee with a trimoraic first syllable to serve in the *dróttkvætt* and *hrúnhent* cadences while still satisfying the requirements for *aðalhending* in the off-verse. As umlaut in Old Norse during this period was morphologically conditioned (see, for example, Iverson & Salmons 2004:105–107), others would have been capable of deciphering just such a poetic neologism. The relationship between *fúrr* and *fýri(r)* would have been morphologically transparent.

7. Conclusion.

Though complicated, there are reasonable ways by which one may see the cognates of the word for “fire” in the Germanic languages as the products of a once-unified paradigm in Proto-Germanic. An additional benefit of this etymology is that one may derive the cognates from one single PIE source paradigm, rather than from three different root-shapes (see figure 2).

In addition to the understanding we gain of the development within Germanic, the evidence from these cognates is important in an Indo-European context. Germanic is one of only five branches of Indo-European to preserve reflexes that seem to indicate a development from PIE *u . However, since there is reason to doubt this in Germanic as well as in Greek, Italic, Slavic, and Armenian, we may also need to rethink the PIE reconstruction; in this case reconstructions not involving laryngeal metathesis. Important information regarding the vocalism of the nom.-acc. form of the PIE proterokinetic inflection is quite possibly preserved in only three Indo-European languages, two of which are Germanic: Tocharian, Gothic, and Shetlandic Norn.

Finally, as seen in the discussion of the North and West Germanic cognates, comparative linguistic reconstructions can still benefit from philological examinations of the evidence. In some cases (for example in relation to the OHG and OLF data) the role of graphemic evidence must be resolved simultaneously with etymology. As seen from the possible preservations (or not, as the case may be) in the Old English *Riming Poem*, the existence of evidence is at issue. Lastly, dictionaries and standard reference materials sometimes present information at odds or unsupported by the actual manuscript evidence, as most thoroughly demonstrated in the problematic nature of the Old Norse data.

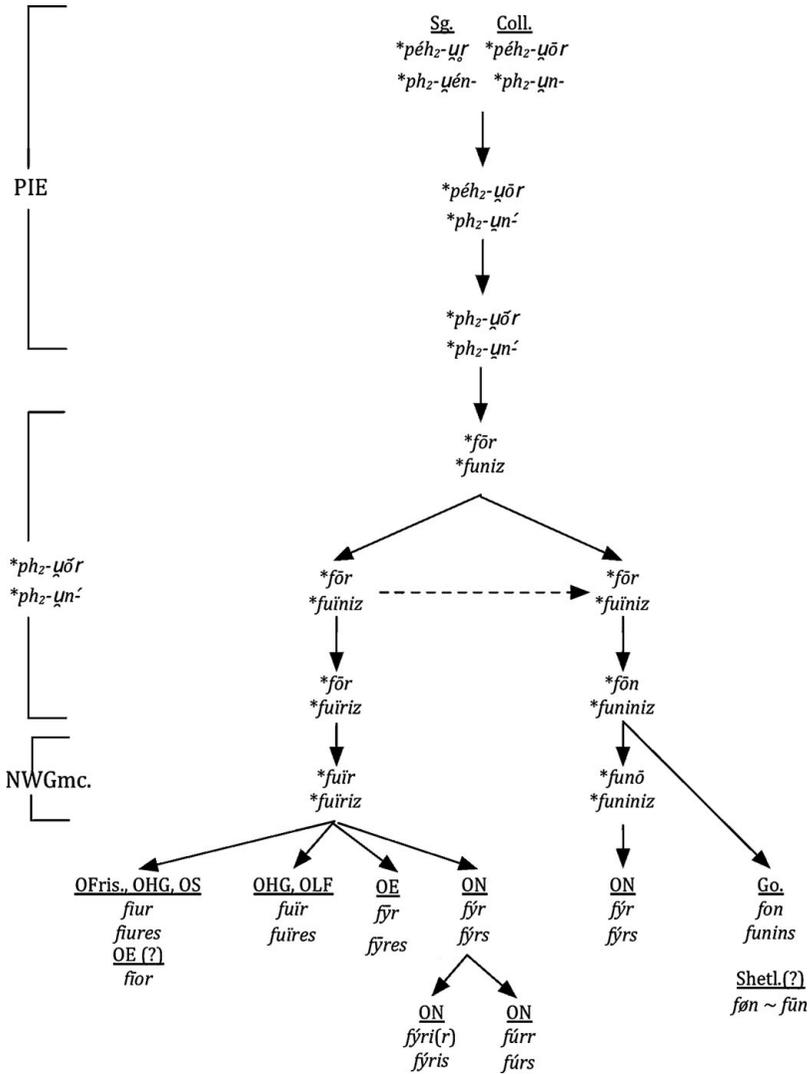


Figure 2. Relative chronological development of the words for “fire” from Proto-Indo-European to Germanic.

Etymologies are often on-going hypotheses, and it is of the nature of these endeavors that one must sift through much data to arrive at hypotheses. I hope that a better understanding of this one piece of the core vocabulary of Germanic can not only inform us about the development of the Germanic languages and about the structure of Proto-Germanic and Proto-Indo-European, but also that it might assist in treating related etymological problems.

REFERENCES

- Abrams, Christopher. 2007. The errors in *The rhyming poem*. *The Review of English Studies* 58.1–9.
- Armborst, David. 1979. Old High German (East Franconian) *W* as hiatus-filling glide: An example of the implications of rule unordering in the synchronic grammar of Old High German. *Zeitschrift für Dialektologie und Linguistik* 46.26–32.
- Bammesberger, Alfred. 1990. *Die Morphologie des urgermanischen Nomens*. (Untersuchungen zur vergleichenden Grammatik der germanischen Sprachen 2.) Heidelberg: Carl Winter Universitätsverlag.
- Bartholomae, Ch. 1916. Got. *Fōn*, Gr. ΠυϞ, usw. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 41.272–295.
- Beekes, Robert S. P. 1996. The etymology of Germ. *Funke* ‘Spark’. *Amsterdamer Beiträge zur älteren Germanistik* 46:1–8.
- Braune, Wilhelm. 1987. *Althochdeutsche Grammatik*. 14th edn. by Hans Eggers. (Sammlung kurzer Grammatiken germanischer Dialekte A.5.) Tübingen: Max Niemeyer Verlag.
- Brugmann, Karl. 1913–1914. Zur nominalen Stammbildung der germanischen Sprachen. *Indogermanische Forschungen* 33.300–313
- Brunner, Karl. 1965. *Altenglische Grammatik. Nach der angelsächsischen Grammatik von Eduard Sievers*. 3rd rev. edn. (Sammlung kurzer Grammatiken germanischer Dialekte A.3.) Tübingen: Max Niemeyer Verlag.
- Buck, Carl Darling. 1904. *A grammar of Oscan and Umbrian: With a collection of inscriptions and a glossary*. Boston: Ginn & Company.
- Campbell, Alistair. 1959. *Old English grammar*. Oxford: Clarendon Press.
- Carlton, Terence R. 1990. *Introduction to the phonological history of the Slavic languages*. Columbus, OH: Slavica Publishers, Inc.
- Craigie, William A. (ed.). 1931. *Specimens of Anglo-Saxon poetry*. Vol. 3. Edinburgh: I. B. Hutcheson.
- Daab, Ursula (ed.). 1959. *Die althochdeutsche Benedikterregel des Cod.Sang 916*. (Altdeutsche Textbibliothek 50.) Tübingen: Max Niemeyer Verlag.

- De Vries, Jan. 1961. *Altnordisches etymologisches Wörterbuch*. Leiden: E. J. Brill.
- Edmondston, Thomas. 1866. *Etymological glossary of the Shetland and Orkney Dialect. With some derivations of names of places in Shetland*. Edinburgh: Adam & Charles Black.
- Ettmüller, Ludwig (ed.). 1850. *Engla and Seaxna Scôpas and Bôceras. Anglosaxonum poëtae atque scriptores prosaici, quorum partim integra opera, partim loca selecta collegit, correxit*. Leipzig: G. Bassii.
- Finnur Jónsson (ed.). 1965. *Den Norsk-Islandske Skjaldedigtning*. 4 vols. Photographic reproduction of the first 1912–1915 edn. Copenhagen: Rosenkilde og Bagger.
- Fortson, Benjamin. 2004. *Indo-European language and culture: An introduction*. (Blackwell Textbooks in Linguistics 19.) New York: Blackwell Publishing.
- Fulk, Robert D. 1992. *A history of Old English meter*. Philadelphia: University of Pennsylvania Press.
- Gamkrelidze, Thomas A., & Vjačeslav V. Ivanov. 1995. *Indo-European and the Indo-Europeans: A reconstruction and historical analysis of a proto-language and a proto-culture*. 2 vols. trans. by Johanna Nichols. (Trends in Linguistics. Studies and Monographs 80.) New York: Mouton de Gruyter.
- Gerasimov, Ivan Alexandrovich. 2002. Vedijskoe svår "solntse" (k voprosu o laringal'noj metateze). *Vestnik Moskovskogo Universiteta* 6.140–50.
- Grein, Christian W. M. (ed.). 1858. *Bibliothek der angelsächsischen Poesie*. Vol. 2. Göttingen: G.H. Wigand.
- Iverson, Gregory, & Joseph Salmons. 2004. The conundrum of Old Norse umlaut: Sound change versus crisis analogy." *Journal of Germanic Linguistics* 16.77–110.
- Jakobsen, Jakob. 1897. *Det Norrøne Sprog på Shetland*. Copenhagen: Wilhelm Priors Hofboghandel.
- Jakobsen, Jakob. 1928. *An etymological dictionary of the Norn language in Shetland*. London: David Nutt (A.G. Berry).
- Klinck, Anne L. (ed.). 1992. *The Old English elegies: A critical edition and genre study*. London: McGill-Queen's University Press.
- Klingenschmitt, Gert. 1994. Die Verwandtschaftsverhältnisse der indogermanischen Sprachen. In *In Honorem Holger Pedersen: Kolloquium der Indogermanischen Gesellschaft von 25. bis 28. März 1993 in Kopenhagen*, ed. by Jens E. Rasmussen, 235–251. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Krapp, George P., & Elliot V. K. Dobbie (eds.). 1936. *The Exeter book*. (The Anglo-Saxon Poetic Records 3.) New York: Columbia University Press.
- Krause, Wolfgang. 1971. *Die Sprache der urnordischen Runeninschriften*. (Germanische Bibliothek. Reihe 3: Untersuchungen und Einzel-darstellungen.) Heidelberg: Carl Winter Universitätsverlag.

- Kyes, Robert L. 1967. The evidence for *i*-umlaut in Old Low Franconian. *Language* 43.666–673.
- Kyes, Robert L. 1969. *The Old Low Franconian psalms and glosses*. Ann Arbor: The University of Michigan Press.
- Lehmann, Ruth. 1970. The Old English *Riming Poem*: Interpretation, text, and translation. *Journal of English and Germanic Philology* 49.437–49.
- Lehmann, Winfrid P. 1986. *A Gothic etymological dictionary. Based on the third edition of Vergleichendes Wörterbuch der Gotischen Sprache by Sigmund Feist: With bibliography prepared under the direction of Helen-Jo J. Hewitt*. Leiden: Brill.
- Macrae-Gibson, O. Duncan (ed.). 1983. *The Old English Riming Poem*. Cambridge: D.S. Brewer.
- Meiser, Gerhard. 1986. *Lautgeschichte der umbrischen Sprache*. (Innsbrucker Beiträge zur Sprachwissenschaft 51.) Innsbruck: Institut für Sprachwissenschaft der Universität.
- Patrizia, Lendinara. 1990. The survival of Indo-European words in Old Frisian. *Amsterdamer Beiträge zur älteren Germanistik* 31–32.285–310.
- Pisani, Vittorio. 1927. Alcune parole indoeuropee per «fuoco» e affini. *Rendiconti: Atti della Reale Accademia Nazionale dei Lincei. Classe di scienze morali, storiche e filologiche* 6.411–423.
- Pokorny, Julius. 1959. *Indogermanisches etymologisches Wörterbuch*. 3rd edn. Bern: Franke.
- Rasmussen, Jens. 1989. *Studien zur Morphophonemik der indogermanischen Grundsprache*. (Innsbrucker Beiträge zur Sprachwissenschaft 55.) Innsbruck: Institut für Sprachwissenschaft der Universität.
- Ringe, Donald, Jr. 1996. *On the chronology of sound changes in Tocharian, volume 1: From Proto-Indo-European to Proto-Tocharian*. (American Oriental Series 80.) New Haven: American Oriental Society.
- Ringe, Donald, Jr. 2006. *From Proto-Indo-European to Proto-Germanic: A linguistic history of English, volume 1*. Oxford: Oxford University Press.
- Rix, Helmut, & Martin Kümmel. 2001. *Lexikon der indogermanischen Verben*. 2nd rev. edn. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Schindler, Jochem. 1975. L'apophonie des themes indo-europeens en *-r/n*. *Bulletin de la Societe de Linguistique de Paris* 70.1–10.
- Schrijver, Peter. 1991. *The reflexes of the Indo-European laryngeals in Latin*. (Leiden Studies in Indo-European 2.) Atlanta: Rodopi.
- Schmitt, Rüdiger. 1981. *Grammatik des Klassisch-Armenischen mit sprachvergleichenden Erläuterungen*. (Innsbrucker Beiträge zur Sprachwissenschaft 32.) Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Seebold, Elmar. 1989. *Friedrich Kluge: Etymologisches Wörterbuch der deutschen Sprache*. 22nd rev. edn. Berlin: Walter de Gruyter.

- Sievers, Eduard. 1886. Zum angelsächsischen Reimlied. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 11.345–54.
- Sievers, Eduard (ed.). 1892. *Tatian: Lateinisch und altdeutsch mit ausführlichem Glossar*. 2nd rev. edn. Paderborn: Ferdinand Schöningh.
- Sihler, Andrew. 2000. *Language history: An introduction*. (Amsterdam studies in the theory and history of linguistics, IV.191.) Philadelphia: John Benjamins.
- Sihler, Andrew. 1995. *New comparative grammar of Greek and Latin*. Oxford: Oxford University Press.
- Splett, Jochen. 1976. *Abrogans-Studien: Kommentar zum ältesten deutschen Wörterbuch*. Wiesbaden: Franz Steiner Verlag.
- Sveinbjörn Egilsson. 1913–1916. *Lexicon Poeticum Antiquae Linguae Septentrionalis: Ordbog over det Norsk-Islandske Skjaldesprog*. Rev. by Finnur Jónsson. Copenhagen: S.L. Møllers Bogtrykkeri.
- Vasmer, Max. 1964–1973. *Etimologičeskij slovar’ russkogo jazyka*. Trans. by O. N. Trubačeva. Moscow: Izdatel’stvo “Progress.”
- Voyles, Joseph B. 1992. *Early Germanic Grammar: Pre-, Proto-, and Post-Germanic Languages*. San Diego: Academic Press, Inc.
- Walde, Alois. 1927–1930. *Vergleichendes Wörterbuch der Indogermanischen Sprachen, herausgegeben und bearbeitet von Julius Pokorny*. Berlin: W. de Gruyter & Co.
- Watkins, Calvert. 2000. *The American heritage dictionary of Indo-European roots*. 2nd edn. Boston: Houghton Mifflin Company.
- Winter, Werner. 1965. Tocharian evidence. *Evidence for laryngeals*, ed. by Werner Winter, 190–211. London: Mouton & Co.
- Wood, Francis A. 1899. The semasiology of words for “smell” and “see.” *Publications of the Modern Language Association* 14.299–346.

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