# Runic and Skaldic Evidence of Palatal *r* in West Norse

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#### **Abstract**

Runic evidence shows that the phonemes r and palatal R merged at an early date in West Norse. I argue here that skaldic poetry also comprises valid evidence of this merger and that there is no reason to believe that r and R should have rhymed until the two phonemes had actually coalesced. All the poets of the Viking Age whose verse consists of at least eighty rhymed lines show examples of rhyme between r and R, except Bragi Boddason, whose poetry, traditionally dated to the 800s, is the most archaic to be preserved. There are, on the other hand, five examples of r and R rhyming with each other in the poem Haustlong by Þjóðólfr ór Hvini, traditionally dated to c. 900. These admittedly sparse data would date the merger of r and R to the late 800s. This is essentially the same dating shown by the runic evidence, which is also quite meagre. The linking of runic and skaldic chronology can be shown to strengthen both.

Keywords: skaldic poetry, consonant rhyme, palatal r, historical phonology, West Norse

#### Introduction

European r, and a phoneme conventionally represented as R, ultimately descended from Indo-European s voiced to s by Verner's law. The exact realization of r is unknown but since it affected preceding vowels in the same way as s did (s-mutation) it is often referred to as palatal r (see further Peterson 1983, Larsson 2002). The transition from s to s can be traced through internal developments, in particular the effects of final devoicing (Thöny 2017). There is also useful comparative evidence in Finnish, where s in the oldest Proto-Norse loanwords occurs as s whereas s in a younger stratum of loanwords appears as s (Schalin 2016, 253–55).

The R phoneme eventually merged with r in all the Nordic languages and is not represented in any surviving manuscript. It is, however, represented by a special symbol in runic writing, the  $\acute{y}r$  rune. From runic orthography it appears that R merged with r early in Norway and its colonies, survived longer in Denmark, longer still in Sweden — and lasted longest in Gotland where it survived into the 1200s (Larsson 2002). We have a very substantial corpus of East Norse inscriptions which distinguish R from r.

Palatal R is most common in inflectional endings, such as in **kurma**: **kunuka** (Old Icelandic *Gormr konungr*) and **tanmarkaa** (Old Icelandic *Danmarkar*) on the older Jelling stone (DR 41). It is also common in pronouns such as **þaira** (Sö 120 Skogshall; Old Icelandic *þeira*) and **þaa** (Ög 136 Rök; Old Icelandic *þær*). Finally, it is found in the roots of certain verbs and nouns such as in **uaru** (Ög 202 Gottlösa; Old Icelandic *vǫ́ru*) and **gairlauk** (U 29 Hillersjö; Old Icelandic *Geirlaug*).

This article reviews the chronological evidence for the merger of R and r in West Norse and its main contribution is found in the attention given to skaldic poetry from the Viking Age. While this evidence has been referred to by previous scholars, it has always been treated summarily and sometimes dismissively. I attempt to remedy this here.

#### Runic evidence

From Viking Age Norway we have approximately sixty runestones along with a handful of runic inscriptions on other types of artifacts. Most of these runestones are from the end of the period, dating to the 1000s. It is abundantly clear that the distinction between r and R had been lost by that time — the ýr rune is either not used at all or repurposed to stand for y and infrequently also for other vowels.

The Norwegian evidence from the 800s and 900s is much more sparse, especially considering that not all inscriptions have data pertaining to the r/R question and many are difficult to date. As far as I can tell, there are only two Norwegian runestones from the Viking Age where the  $\acute{yr}$  rune is used for R, the Valby stone and the Bjørneby stone.

The Valby stone (N 140) is conventionally dated to the 800s (Spurkland 2005, 76 f.) and contains a clear instance of etymological R in  $\mathbf{auarbr}$  (Old Icelandic  $\acute{a}var \acute{o}r$  or  $H\acute{a}var \acute{o}r$ ). The Bjørneby stone (N 2) is a more difficult case—the runes are very worn but there seems to be agreement that the inscription contains the word  $\mathbf{statr}$  (Old Icelandic  $\mathit{stendr}$ ). There is little solid evidence to use in dating the stone: Sanness Johnsen (1968, 98) proposes "ca. 800 eller tidligere" while Birkmann (1995, 328) suggests the 900s.

Claims have been made about the presence of R in two further West Norse inscriptions. One is the pail from the Oseberg ship (c. 835) which has carvings that have been read as **asikrin** (N 138; Old Icelandic á  $Sigri\delta r$ ), although this is far from certain. Michael Barnes notes that "some see here little more than a collection of vertical scratches" (Barnes 2012, 89). I have not personally inspected the pail but I find it difficult to reconcile available photographs with the traditional reading.

Another putative R is found in the Isle of Man inscription referred to as MM 113 Andreas IV, the last visible word of which has been read as **aftir**. When Katherine Holman inspected this badly damaged inscription in 1993, she was unable to confirm the reading of a final short-twig  $\hat{y}r$  rune and suggested that the rune in question might be "the remains of a long-branch r-rune" (Holman 1996, 107 f.). She further noted a drawing which appeared to show the same inscription in a better state of preservation—complete with an  $\mathbf{r}$  rune rather than an  $\mathbf{r}$  rune. More recently, Michael Barnes argues that the visible remnants are more consistent with  $\mathbf{r}$  than  $\mathbf{r}$  (Barnes 2019, 106). Whatever the case may be, a number of Manx inscriptions are contemporary with Andreas IV and none of these show the use of R. It must be regarded as very doubtful that this inscription tells us anything about the use of R in West Norse; as Barnes points out "there are likely to have been groups of people from eastern Scandinavia on the island as well" (Barnes 2019, 77).

There is an inscription with R from St Albans in England (E 13) but it has East Scandinavian characteristics and so does not concern us here (Barnes and Page 2006, 328). The same can be said of the deer's antler from Dublin (IR 12). On the whole, we have no convincing evidence of the use of R in West Norse inscriptions beyond the 800s.

We can now move ahead to consider the use of r in place of etymological R. The oldest Norwegian manifestation of this is found on a bronze ladle (Trå, N 282–284) found in a grave archaeologically dated to the first half of the 900s. The inscriptions on the ladle contain four cases of  $\mathbf{r}$  written for etymological R, including the final consonant of the word  $\mathbf{uritar}$  (Old Icelandic  $\acute{or\acute{e}ttar}$ ) written twice (see e.g. Sanness Johnsen 1968, 200 f.). As far as I can tell, this is the only Norwegian inscription from the early or mid-900s which bears on the question. The oldest runestones to show  $\mathbf{r}$  for palatal R are, at the oldest, from the late 900s. One example is the older inscription on the Alstad stone (N 61), which appears to be pre-Christian and contains the preposition  $\mathbf{ur}$  (Old Icelandic  $\acute{ur}/\acute{or}$ ). A number of Norwegian inscriptions dating to c. 1000 or the early 1000s affirm the disappearance of palatal R.

Somewhat surprisingly, the Isle of Man offers a richer trove of data from the mid-900s for West Norse. Of the inscriptions which Sanness Johnsen dates to c. 950 are seven Manx inscriptions with occurrences of **r** for etymological *R* (MM 99 Andreas I, MM 101 Kirk Michael II, MM 107 German I, MM 110 Kirk Michael VII, MM 118 Bride, MM 128 Andreas III, MM 131 Andreas II; Sanness Johnsen 1968, 221–45). These contain words such as **sunr**, **runar** and **biarnar** (Old Icelandic *sunr*, *rúnar*, *Bjarnar*) which demonstrate the merger of *R* and *r*. There is also one inscription in the Hebrides (Kilbar, Sc 8) of similar age which reads **r\*str** (Old Icelandic *reistr*). Runologists continue to wrestle with the early dating of these inscriptions, which is based on art-historical considerations (Barnes 2013; Barnes 2019, 57–63).

The oldest runic inscription from Greenland, the Narsaq inscription dated to c. 1000, GR 76 (Imer 2017, 251) has some evidence to consider. The words **haitir mar** (Old Icelandic *heitir mær*) show the change clearly. As far as I can tell, there are no relevant runic inscriptions from Iceland, the Faroes, Orkney or Shetland which are old enough to add greatly to the picture.

To summarize the runic evidence, we have reasonably strong indications from the mid- to late 900s that palatal R had merged with R in West Norse. The Trå ladle may push the date back slightly further. The dating of the Valby and Björneby stones is quite uncertain and we must be careful to avoid circular argumentation: a part of the reason these inscriptions have been classified as early is the very fact that they have palatal R. Both inscriptions are short and lack firm external evidence for dating —I fail to see how a dating of either inscription as early as c. 800 or as late as c. 900 can be ruled out. With this uncertainty, the merger of R and R—based on the runic evidence alone — can hardly be dated more precisely than to the 800s or the beginning of the 900s.

## Skaldic poetry as a source

Medieval Icelandic sources have preserved a considerable amount of orally transmitted poetry attributed to poets of the pre-literary age. This includes a substantial amount of poetry from the mid-900s onwards and a small amount of earlier material.

The *dróttkvætt* metre was the mainstay of skaldic poetry and the only metre which we need to consider here. In classical *dróttkvætt*, the penultimate syllable of each line rhymes with one of the syllables occurring earlier in the line. In the odd lines the rhyme involves one or more consonants;

in the even lines, the vowels match as well. There are some variations on these patterns, especially in the most archaic poems, but generally speaking it is easy to identify skaldic rhyme. Here are two examples:

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mór valkastar bóru (Haustlong 3.6,¹ SkP, 3: 435)
Hugstóran biðk heyra (Vellekla 1.1, SkP, 1: 283)
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The line from Haustlong is an even line and its rhyme includes the vowels in  $m \acute{o}r : b\acute{o}ru$ . The line from Vellekla is odd and the vowels are different,  $st\acute{o}ran : heyra$ . Both examples show rhyme between r and earlier r, attesting to the merger of the phonemes. The words heyra (Gothic hausjan) and  $m\acute{o}-r$  (the nominative suffix from r) derive from r-forms while  $b\acute{o}ru$  and  $st\acute{o}ran$  do not (as shown by the lack of r-mutation and other evidence).

As discussed above, it is usually a relatively simple matter to demonstrate that a given skaldic corpus (such as a particular poem or the oeuvre of a particular poet) does not distinguish between r and R. The value of this as linguistic evidence might be questioned in at least two ways, however.

One objection is that equivalence in skaldic rhyme is no guarantee of phonemic equivalence—the rhyme tolerated certain types of imperfections. The major types are as follows:<sup>2</sup>

- (a) Short and long consonants were frequently rhymed (e.g. *t* and *tt*).
- (b) Short and long vowels were occasionally rhymed (e.g. y and  $\hat{y}$ ).
- (c) Oral and nasal vowels were treated as equivalent.
- (d) The phonemes a and  $\varrho$  were often rhymed.
- (e) The phonemes  $\acute{a}$  and  $\acute{o}$  were often rhymed.
- (f) Velar k and g were treated as equivalent with palatal k and g respectively.

Carl J. S. Marstrander (1915, 116 f.) and Börje Tjäder (1961, 11 f.) cited the imprecisions of skaldic rhyme as a reason to discount the skaldic evidence for r and R. While some vigilance is certainly warranted, I think this is overcautious. For one reason, the known imprecisions of the rhyme affect mostly the vowels which the skalds may have regarded as less important. Skaldic rhyme has consonant rhyme in every line but vowel rhyme only in every second line.

<sup>&</sup>lt;sup>1</sup> The abbreviated reference is to be read "*Haustlong*, stanza 3, line 6"; all references to skaldic poems employ this system.

<sup>&</sup>lt;sup>2</sup> For discussion of skaldic rhyme in general see e.g. Gade 2012, Kristján Árnason 2007, Kuhn 1983, Myrvoll 2014, Þorgeir Sigurðsson 2001.

Furthermore, none of the known imprecisions are analogous to a putative rule allowing equivalence between r and R. Historical reasons can explain the equivalence of a and  $\varrho$ . The phoneme  $/\varrho$ / emerged late and the poets may have imitated the works of earlier poets whose language did not distinguish between a and  $\varrho$ . The same applies to the palatal and velar stops but since this involves consonantal rhyme it may be worth investigating the matter in more detail.

The evidence of umlaut occurring before gi or ki shows that palatalization of g and k must have taken place at an early date. The e vocalism in degi from Proto-Norse \* $dag\bar{e}$  must be due to the palatalization of g before front vowels since final  $\bar{e}$  in Proto-Norse did not occasion i umlaut (see e.g. Jón Axel Harðarson 2007, 79). It can then be assumed that g and k were palatalized in Old Norse before front vowels, as they still are in modern Icelandic. Yet the poets did not hesitate to rhyme velar and palatal stops, as in these examples (where underlining indicates the pertinent combinations: g or k with following i is palatal but velar with other following vowels):

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byrgis bǫðvar sorgar (Vellekla 4.3, SkP, 1: 287)
jarls rí<u>ki</u> framm slí<u>ku</u> (Vellekla 12.8, SkP, 1: 298)
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If velar and palatal stops could rhyme, it might be expected that r and palatal R could also rhyme with one another. I do not believe, however, that that conclusion necessarily follows. As with the case of a and  $\varrho$ , the velar and palatal stops arose historically from the same phonemes. This does not apply to the r/R distinction since r and R did not share the same origin. A poet who recognized these sounds as distinct units in his language would have no way of knowing that they would merge in the future.

Some scholars have attempted to explain rhyme between a and  $\varrho$  on a synchronic basis by invoking the structuralist idea of partially neutralized opposition (Hreinn Benediktsson 2002, 96). I have previously discussed the weak empirical basis of this idea and argued for other solutions (Haukur Porgeirsson 2013, 16–19 and passim, see also Manaster-Ramer 1994). If we nevertheless briefly entertain the idea here, it might be suggested that certain phonological developments created a special affinity between r and R even prior to the merger of the two phonemes.

As an example, the inscription on the Glavendrup stone from the early 900s (DR 209) shows that the distinction between r and R is present, with words like **rungr** and **sunir**. It also shows, however, that R has developed into r after d in **ruknhiltr** and has been assimilated to r in **bur** (Old Ice-

landic *Pórr*). The question is whether developments of this sort would have been enough to create the impression among speakers that R and r were interchangeable sounds that could be rhymed with one another. I find this unlikely. Neither in Old Norse nor other languages does loss of the distinction between two phonemes in one or two environments normally lead to their rhyming together elsewhere. It could be noted that R was also assimilated to l, s and n (steinn < \*stain\* etc.) with no such consequences.

Ultimately, r and R were different phonemes with different historical origins and different runic representations. There are no strong reasons to expect them to rhyme before their actual merger. Nonetheless in this matter, as in so many others, we must admit to some residual uncertainty.

Another possible objection to the use of skaldic evidence for linguistic developments is skepticism concerning the authenticity or reliability of the poetry which Icelandic written sources from the 1200s and 1300s attribute to Viking Age poets. Are the poems in question really works of the poets to whom they are attributed or are they later fabrications? Even if the attributions were made in good faith, was the oral tradition faithful enough to transmit appreciable amounts of poetry through 200-400 years in a form close enough to the originals to be useful for linguistic analysis? I believe the answer to both questions is a qualified yes.

Skaldic poetry attributed to pre-literary poets shows a wealth of archaic linguistic traits and a convincing chronology of metrical developments. This is emphasized in a detailed study of the question by Klaus Johan Myrvoll who notes (2014, 331 f.):

Ein finn mynster som det vilde vera vanskelegt å gjera greida for um det var soleis at diktingi frå dei tidlege hundradåri hadde vore full av seinare fabrikasjonar. Det me oftast ser, er snarare ein jamn historisk vokster som er som ein skulde venta um storparten av det yverleverte materialet er autentisk.

Nevertheless, skaldicists generally believe that the individual stanzas (lausavisur) attributed to the heroes of the Icelandic Family Sagas constitute less reliable material than the verses preserved in other sources. The poetry quoted in royal biographies and in essays on poetry is deemed to be more authentic. Fortunately, this includes the oldest material—the verses by Bragi Boddason and Þjóðólfr ór Hvini.

## Survey of r/R rhyme in Viking Age poetry

As a basis for my survey I have taken the corpus of *dróttkvætt* poetry delineated by Klaus Johan Myrvoll. Myrvoll includes all the poets who have at least eighty lines of verse and, for the oldest period, a selection of poets with a smaller preserved oeuvre (Myrvoll 2014, 35–37). He has further simplified matters by counting the number of rhymed lines, which is of relevance here (pp. 137 f.). Myrvoll's corpus extends to the 1200s but for our purposes here the Viking Age poets will suffice.

Within this corpus I have identified the following instances of rhyme between r and R. I have underlined instances of r derived from R.

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Bragi inn gamli Boddason (SkP, 3: 28–62): no examples
Þjóðólfr ór Hvini (SkP, 1: 64 f., 3: 431–61):
  Haustlong 1.7 á hreingoru hlý<u>r</u>i (SkP, 3: 432)
  Haustlong 3.6 mór valkastar bóru (SkP, 3: 435)
  Haustlong 4.7 þars vélsparir vóru (SkP, 3: 437)
  Haustlong 9.1-2 Sér bað sagna hræri / sorgæran mey færa (SkP, 3:
     444)^3
  Haustlong 10.7 (váru heldr) ok hárar (SkP, 3: 446)
Þórbjorn hornklofi (SkP, 1: 73–90, 117):
  Glymdrápa 7.7 hór vas songr of svírum (SkP, 1: 87)
Torf-Einarr Rognvaldsson (SkP, 1: 129–37):
  lausavísa 3.6 þar fló grá<u>r</u> af sórum (SkP, 1: 134)
Egill Skallagrímsson (Skj, B, 1: 30–53):
  Berudrápa 1.7 hrafnstýrandi hræ<u>r</u>a (Skj, B, 1: 42)
  lausavísa 4.3 atgei<u>r</u>a lætk úra (Skj, B, 1: 43)
  lausavísa 17.5 nærgis simla sorgar (Skj, B, 1: 46)
  lausavísa 18.5 þvít sárlaxa Sýrar (Skj, B, 1: 46)
  lausavísa 26.2 sannspár, hugins vára (Skj, B, 1: 48)
  lausavísa 28.1 Esa Friðgeiri færi (Skj, B, 1: 48)
Jórunn skáldmær (SkP, 1: 143–49): no examples
Guthormr sindi (SkP, 1: 156–68): no examples
Eyvindr skáldaspillir Finnsson (SkP, 1: 213–34):
  lausavísa 6.6 Eiríks of rak – gei<u>r</u>a (SkP, 1: 223)
  lausavísa 10.5 Trúr vask tyggja dýrum (SkP, 1: 229)
  lausavísa 12.1 Snýr á Svolnis výru (SkP, 1: 231)
Hólmgongu-Bersi Véleifsson (Skj, B, 1: 86–89):
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<sup>&</sup>lt;sup>3</sup> This is continuing rhyme of the *dunhent* type, see e.g. Males 2008.

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lausavísa 1.5 skora mun Skoglar reyra (Skj, B, 1: 86)
   lausavísa 6.2 ár (sagt es þat), vórum (Skj, B, 1: 87)
   lausavísa 8.8 Þórrøðr, vinun óra (Skj, B, 1: 88)
   lausavísa 10.7 þei<u>r</u> hlutu feðgar fjórir (Skj, B, 1: 88)
   lausavísa 13.2 vegstórr toður órar (Skj, B, 1: 88)
Víga-Glúmr Eyjólfsson (Skj, B, 1: 112–14):
   lausavísa 10.6 dreyra svells á eyri (Skj, B, 1: 114)
Glúmr Geirason (SkP, 1: 245–66):
   Gráfeldardrápa 5.3 þar varð í gný gei<u>r</u>a (SkP, 1: 254)
   Gráfeldardrápa 7.3 naddskúrar vas nœ<u>r</u>ir (SkP, 1: 256)
Gísli Súrsson (Skj, B, 1: 96–104):
   lausavísa 8.5 nú hefr gnýstœrir gei<u>r</u>a (Skj, B, 1: 97)
   lausavísa 13.3 Eir vórum þar aura (Skj, B, 1: 98)
   lausavísa 15.3 ýrr, nema allgótt hey<u>r</u>ir (Skj, B, 1: 99)
   lausavísa 19.3 Eir (varðat mér) aura (Skj, B, 1: 100)
   lausavísa 29.3 ár, þótt eigi væ<u>r</u>ak (Skj, B, 1: 102)
   lausavísa 30.8 hór, ofrliði bóru (Skj, B, 1: 102)
   lausavísa 33.5 ok (váss) mærar væri (Skj, B, 1: 103)
   lausavísa 35.7 (hvat hyggr mé<u>r</u>) en mæra (Skj, B, 1: 103)
   lausavísa 35.8 mín sór (und því vóru) (Skj, B, 1: 103)
Kormákr Ogmundarson (Skj, B, 1: 69–85):
   lausavísa 1.5 þeir munu fætr at fári (Skj, B, 1: 70)
   lausavísa 5.3 Eir of aptanskærur (Ski, B, 1: 71)
   lausavísa 26.5 brast fyr mér enn mæri (Skj, B, 1: 76)
   lausavísa 47.2 af, skar mær, at bærit (Skj, B, 1: 80)
   lausavísa 47.3 Tý<u>r</u>, sýndisk, mer taura (Skj, B, 1: 80)
   lausavísa 49.8 tvær, (unnasta værri) (Skj, B, 1: 81)
   lausavísa 51.7 mé<u>r</u> hefr steypt í stúru (Skj, B, 1: 81)
   lausavísa 53.5 ok þrymskúrar þei<u>r</u>ar (Skj, B, 1: 82)
   lausavísa 59.3 bás vér of fen fórum (Skj, B, 1: 83)
   lausavísa 64.4 drey<u>r</u>ugt sverð á eyri (Skj, B, 1: 84)
Einarr skálaglamm Helgason (SkP, 1: 279–333, 3: 137 f.; Skj, B, 1: 124):
   Vellekla 1.1 Hugstóran biðk hey<u>r</u>a (SkP, 1: 283)
   Vellekla 11.8 þrír jarls synir tírar (SkP, 1: 297)
   Vellekla 12.5 Varðat Frey<u>r</u>, sás færi (SkP, 1: 298)
   Vellekla 14.7 þeim stýra goð – gei<u>r</u>a (SkP, 1: 301)
   Vellekla 21.1 Hitt vas meir, at Mæra (SkP, 1: 308)
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Vellekla 21.5 Ýtti Freyr af fjórum (SkP, 1: 308)
  Vellekla 37.4 mæringr an þú færa (SkP, 1: 329)
  lausavísa 3.4 sárelda spor vóru (Skj, B, 1: 124)
Þórarinn svarti máhlíðingr Þórólfsson (Skj, B, 1: 105–09):
  Máhlíðingavísur 6.1 Urðum vér at verja (Skj, B, 1: 107)
Úlfr Uggason (SkP, 3: 402–24; Skj, B, 1: 130):
  Húsdrápa 7.3 Freyr ok folkum stýrir (SkP, 3: 417)
Tindr Hallkelsson (SkP, 1: 336–56, Skj, B, 1: 138 f.):
  Hákonardrápa 1.3 gný<u>r</u> óx Fjolnis fúra (SkP, 1: 338)
Eilífr Goðrúnarson (SkP, 3: 68–127):
  Pórsdrápa 23.2 oss grær of kon mærar (SkP, 3: 124)
Hallfreðr vandræðaskáld Óttarsson (SkP, 1: 387–440, 3: 212–24; Skj, B,
  1: 157-63):
  Óláfsdrápa 5.3 naddskúrar réð næ<u>r</u>ir (SkP, 1: 397)
  Óláfsdrápa 6.7 Týr vas tjorva dýrra (SkP, 1: 398)
  Erfidrápa Óláfs Tryggvasonar 9.2 lognórungum vóru (SkP, 1: 414)
  Erfidrápa Óláfs Tryggvasonar 9.3 geirs við gumna stjóra (SkP, 1: 414)
  Erfidrápa Óláfs Tryggvasonar 19.5 Væri oss, þótt ærir (SkP, 1: 427)
  Erfidrápa Óláfs Tryggvasonar 24.6 Eirekr eða hlut mei<u>r</u>a (SkP, 1: 434)
  Eiríksdrápa 1.1 Bærr est hróðr at hey<u>r</u>a (Skj, B, 1: 157)
  lausavísa 4.1 Fœrum festar ógrar (Skj, B, 1: 158)
  lausavísa 16.4 fúlmár á trọð bóru (Skj, B, 1: 160)
  lausavísa 17.3 hann mun aura Eirar (Skj, B, 1: 160)
  lausavísa 22.3 vér munum dag hvern dýrra (Skj, B, 1: 162)
  lausavísa 26.7 munat úrbvegin eira (Skj, B, 1: 163)
Hávarðr halti ísfirðingr (SkP, 3: 241; Skj, B, 1: 178–82):
  lausavísa 5.1 Vér hofum felda fjóra (Skj, B, 1: 179)
  lausavísa 10.7 geira gætióru (Skj, B, 1: 181)
  lausavísa 13.6 gunn-næringar færi (Ski, B, 1: 181)
Þórðr Kolbeinsson (SkP, 1: 487–513; Skj, B, 1: 203, 207–09):
  Eiríksdrápa 4.5 þæ<u>r</u>, es jarl und órum (SkP, 1: 494)
  Eiríksdrápa 7.1 Hafði sér við særi (SkP, 1: 499)
  Eiríksdrápa 7.4 Eirekr í hug meira (SkP, 1: 499)
  Eiríksdrápa 9.2 ár at hersar vóru (SkP, 1: 501)
  Eiríksdrápa 10.8 fár – hans býir vó<u>r</u>u (SkP, 1: 503)
  Eiríksdrápa 11.8 Eirekr koma beira (SkP, 1: 504)
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Eiríksdrápa 12.5 Bládýrum helt bóru (SkP, 1: 506)

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Eiríksdrápa 15.6 Eirekr, bana beira (SkP, 1: 510)
  Eiríksdrápa 16.2 ár hrafngefendr, vóru (SkP, 1: 511)
  lausavísa 3.8 stórgeðr liði óru (Skj, B, 1: 207)
  lausavísa 6.2 társ, mær, gefendr vóru (Skj, B, 1: 208)
Bjorn Hítdœlakappi Arngeirsson (Skj, B, 1: 277–83):
  lausavísa 1.5 ef horskorða hey<u>r</u>ði (Skj, B, 1: 277)
  lausavísa 8.5 é<u>r</u> á Oddaeyri (Skj, B, 1: 279)
  lausavísa 13.1 Systr eru tvær með tíri (Skj, B, 1: 280)
  lausavísa 14.7 fœrir lókr of leiru (Skj, B, 1: 280)
  lausavísa 20.8 Mæringr roðinn væri (Skj, B, 1: 282)
Gunnlaugr ormstunga Illugason (Skj, B, 1: 184–88):
  lausavísa 5.8 Eirekr bláar fleiri (Skj, B, 1: 186)
  lausavísa 6.5 meir séumk hitt, an hæru (Skj, B, 1: 186)
  lausavísa 8.7 gefin vas Eir til aura (Skj, B, 1: 187)
  lausavísa 10.1 Gefin vas Eir til aura (Skj, B, 1: 187)
Sigvatr Þórðarson (SkP, 1: 532–736, 2: 11–30, 3: 347–49):
  Víkingarvísur 2.6 fár beið ór stað sára (SkP, 1: 537)
  Víkingarvísur 13.7 Gei<u>r</u>fiðr hét sá – gorva (SkP, 1: 552)
  Nesjavísur 7.8 mær heiðþegum bæri (SkP, 1: 566)
  Nesjavísur 8.7 ná<u>r</u> flaut ort við eyri (SkP, 1: 568)
  Nesjavísur 8.8 ófá<u>r</u> – búendr sárir (SkP, 1: 568)
  Austrfararvísur 1.1 Hugstóra biðk heyra (SkP, 1: 583)
  Austrfararvísur 6.4 þrí<u>r</u> samnafnar tíri (SkP, 1: 592)
  Austrfararvísur 11.1 Jór rinnr aptanskæru (SkP, 1: 599)
  Austrfararvísur 17.7 harða morg; né heyrðak (SkP, 1: 606)
  Austrfararvísur 19.4 Eireks svika þeira (SkP, 1: 609)
  Austrfararvísur 20.5 Þér lét, þjófa rýrir (SkP, 1: 611)
  Vestrfararvísur 4.6 framts Eireks kyn – meira (SkP, 1: 621)
  Vestrfararvísur 7.7 gefin e<u>r</u>u gumna hverjum (SkP, 1: 625)
  Flokkr about Erlingr Skjálgsson 8.7 hofuð bórum vér hæ<u>r</u>a (SkP, 1: 640)
  Flokkr about Erlingr Skjálgsson 10.3 orr sás átti flei<u>r</u>i (SkP, 1: 642)
  Erfidrápa Óláfs helga 7.3 (góð fóru þar) geirum (SkP, 1: 673)
  Erfidrápa Óláfs helga 9.8 hvórungi frýk – vóru (SkP, 1: 675)
  Erfidrápa Óláfs helga 11.1 Fór í fylking þei<u>r</u>a (SkP, 1: 678)
  Erfidrápa Óláfs helga 14.3 dreyrugt sverð, þars dýran (SkP, 1: 680)
  Erfidrápa Óláfs helga 20.7 morg lá dýr í dreyra (SkP, 1: 688)
  lausavísa 2.7 þér fæk hróðrs at hvóru (SkP, 1: 701)
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lausavísa 9.1 Sendi mér inn mæri (SkP, 1: 710)
  lausavísa 15.8 erum vír of svik skírir (SkP, 1: 718)
  lausavísa 28.5 Fœrak víst, þvít vórum (SkP, 1: 734)
  lausavísa 30.3 þé<u>r</u> þótt þinn hagr stórum (SkP, 1: 736)
  Bersoglisvísur 8.3 orð, þaus eyru heyrðu (SkP, 2: 19)
  Bersoglisvísur 8.4 ór, á svik hvé fóru (SkP, 2: 19)
  Bersoglisvísur 12.3 hárir menn, es heyrik (SkP, 2: 23)
  Bersoglisvísur 17.5 Fórk með feðrum þeira (SkP, 2: 29)
Óláfr inn helgi Haraldsson (SkP, 1: 517–28, 1014–28):
  lausavísa 4.1 Vandfærra es várrar (SkP, 1: 522)
  Liðsmannaflokkr 4.7 vé<u>r</u> hlutum vápna skúrir (SkP, 1: 1020)
  Liðsmannaflokkr 10.3 ár, þars úti vórum (SkP, 1: 1028)
Óttarr svarti (SkP, 1: 739–88):
  Hofuðlausn 3.3 (þú hefr dýrum þrek) dreyra (SkP, 1: 745)
  Hofuðlausn 19.1 Nú ræðr þú fyr þeiri (SkP, 1: 765)
  Knútsdrápa 1.3 fórat fylkir œri (SkP, 1: 769)
  Knútsdrápa 10.7 nær fyr norðan stóru (SkP, 1: 779)
  lausavísa 1.3 ár vas, þats mank meiri (SkP, 1: 784)
  lausavísa 1.5 Mær es markar stjóri (SkP, 1: 784)
Þormóðr Bersason Kolbrúnarskáld (Skj, B, 1: 256–66):
  Porgeirsdrápa 4.6 œsidý<u>r</u>s við stýri (Skj, B, 1: 257)
  Porgeirsdrápa 8.8 jóstýrandi hlýra (Skj, B, 1: 258)
  Porgeirsdrápa 11.3 sér es hann sáat fœri (Skj, B, 1: 259)
  Porgeirsdrápa 13.3 dýrr, þó at drengi væ<u>r</u>i (Skj, B, 1: 259)
  Porgeirsdrápa 14.5 Már hét maðr ok Þórir (Skj, B, 1: 259)
  lausavísa 7.5 nær stóðk randa rýri (Skj, B, 1: 262)
  lausavísa 10.3 þú lézk mé<u>r</u> enn mærar (Skj, B, 1: 262)
  lausavísa 12.4 mæringr, an þorf væri (Skj, B, 1: 263)
  lausavísa 24.4 hyggr fár of mik sáran (Skj, B, 1: 266)
  lausavísa 25.3 fár verðr fagr af sórum (Skj, B, 1: 266)
Haraldr harðráði (SkP, 2: 35–46):
  lausavísa 11.2 hlý<u>r</u>i, mær in skýra (SkP, 2: 52)
Arnórr jarlaskáld Þórðarson (SkP, 2: 178–281, 3: 3–11):
  Porfinnsdrápa 5.3 fór, áðr fimmtán væri (SkP, 2: 235)
  Porfinnsdrápa 8.6 gunnmór of her sórum (SkP, 2: 238)
  Porfinnsdrápa 13.8 grár ulfr of ná sýrum (SkP, 2: 243)
  Porfinnsdrápa 25.3 trú<u>r</u>a tyggja dýrum (SkP, 2: 259)
  Haraldsdrápa 2.1 Hjalmóru lét heyra (SkP, 2: 262)
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Þjóðólfr Arnórsson (SkP, 2: 61–176):
  Magnússflokkr 6.3 nær frák skarpa skæru (SkP, 2: 70)
  Magnússflokkr 10.1 Bóru boslar fleiri (SkP, 2: 75)
  Magnússflokkr 14.8 ná<u>r</u> á hverri bóru (SkP, 2: 81)
  Stanzas about Magnús Óláfsson in Danaveldi 2.7 sær þýtr auðs of
     órum (SkP, 2: 89)
  Stanzas about Magnús Óláfsson in Danaveldi 3.1 Gær sák grjóti stóru
     (SkP, 2: 90)
  Stanzas about Magnús Óláfsson in Danaveldi 3.3 fóra fylking þeira
     (SkP, 2: 90)
  Stanzas about Magnús Óláfsson in Danaveldi 4.4 Selunds mær, hverr
     vé bæri (SkP, 2: 91)
  Stanzas about Magnús Óláfsson in Danaveldi 12.7 vér hlutum sigr, en
     sárir (SkP, 2: 99)
  Sexstefja 6.8 klœr, áðr hingat færir (SkP, 2: 117)
  Sexstefja 19.5 Sér hefr svá langs tírar (SkP, 2: 133)
  Sexstefja 21.7 hár í hóf at færa (SkP, 2: 135)
  Sexstefja 32.1 Hár skyli hirðar stjóri (SkP, 2: 147)
  Stanzas about Haraldr Sigurðarson's leiðangr 2.6 nýri skeið at stýra
     (SkP, 2: 151)
  Stanzas about Haraldr Sigurðarson's leiðangr 4.4 hár sjau tøgum ára
     (SkP, 2: 154)
  Stanzas about Haraldr Sigurðarson's leiðangr 7.4 nær at landamæri
     (SkP, 2; 157)
Þorleikr fagri (SkP, 2: 313–22, 3: 484–86):
  Flokkr about Sveinn Úlfsson 6.7 ár, þats ón of væri (SkP, 2: 317)
Steinn Herdísarson (SkP, 2: 359–81, 3: 388):
  Nizarvísur 1.3 þar kvað þengill eirar (SkP, 2: 360)
  Óláfsdrápa 1.4 ófá<u>r</u> Morukára (SkP, 2: 368)
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The most common morphemes to occur in r/R rhyme are as follows:

(1) Inflectional endings (n): There are fifty-eight examples involving inflectional endings with etymological n, most commonly the exponent of the nominative singular for strong masculine nouns or adjectives, e.g. *Frey-r* or  $tr\hat{u}$ -r, but also various other forms such as  $m\alpha r$ ,  $t\nu\alpha r$ ,  $gr\alpha r$ ,  $n\dot{y}ri$  and fleiri. The presence of n is very well attested in these morphemes in related Germanic languages, in many cases directly through East Norse runic evidence and in all cases where the word is attested in Gothic.

- (2) Pronouns (*R*): There are thirty-seven cases involving pronominal forms, such as *vér*, *mér*, *þeira* and *órar*. Again the presence of *R* is well attested through comparable runic and Gothic evidence.
- (3) The verb vesa(R): There are twenty-two examples involving forms of the verb vesa, such as  $v\acute{q}rum$  and væri. There is ample runic and Gothic evidence here for R.
- (4) The verb fara (r): Forms of the verb fara, such as  $f\'{o}rum$  and  $f\'{o}cri$ , occur nineteen times. The Gothic cognate faran as well as runic evidence demonstrate the presence of r.
- (5) The noun *sár* (*r*) and its cognates: There are twelve examples of forms such as *sórum* and *særi*. The Gothic cognate *sair* shows the presence of *r*.

I have used *Íslensk orðsifjabók* by Ásgeir Blöndal Magnússon (1989) extensively as a source for the etymology of particular words and morphemes and have also consulted *Altnordisches etymologisches Wörterbuch* (de Vries 1962) and  $Våre\ arveord$  (Bjorvand and Lindeman 2007) for difficult cases. In most words with r there is no controversy over whether descent from R is involved but in a few cases there is no convincing etymology.

One example of a difficult word is keyra ('to whip, to drive') which is found in neither runic nor Gothic and has no compelling Indo-European cognates. Jan de Vries and Ásgeir Blöndal Magnússon entertain the idea of a derivation from Proto-Norse \*kaurian, with a tenuous connection to a Serbo-Croatian word. Bjorvand and Lindeman (2000, 462) instead suggest a derivation from Proto-Norse \*kaurijan as a causative of kjósa, but this is far from semantically convincing. The word occurs three times in rhyme in the corpus and since the etymology is uncertain I count none of these instances as rhyme between r and R:

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Keyrum hross, svát heyri (Sigvatr, SkP, 1: 600)
Keyrði Gefn ór garði (Óláfr inn helgi, SkP, 1: 528)
Ofan keyrðum vér — orðum (Þjóðólfr Arnórsson, SkP, 2: 90)
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Another problematic word is *eyrendi*, which has plausible etymologies for both r and n. There are doubtless further cases where another scholar might have included an example I exclude or vice versa.

The results are summarized in table 1, with the poets in chronological order.

Table 1. Rhyme between r and R in Viking Age skaldic poetry

Poet	Rhyming lines	Rhyme of $r$ with $R$
Bragi inn gamli Boddason	101	0
Þjóðólfr ór Hvini	155	5
Þórbjǫrn hornklofi	72	1
Torf-Einarr Rognvaldsson	18	1
Egill Skallagrímsson	334	6
Jórunn skáldmær	28	0
Guthormr sindri	56	0
Eyvindr skáldaspillir	101	3
Holmgongu-Bersi	95	5
Víga-Glúmr	75	1
Glúmr Geirason	97	2
Gísli Súrsson	242	9
Kormákr Qgmundarson	452	10
Einarr skálaglamm	275	8
Þórarinn máhlíðingr	132	1
Úlfr Uggason	54	1
Tindr Hallkelsson	95	1
Eilífr Goðrúnarson	167	1
Hallfreðr vandræðaskáld	498	12
Hávarðr halti ísfirðingr	104	3
Þórðr Kolbeinsson	212	11
Bjǫrn Hítdœlakappi	171	5
Gunnlaugr ormstunga	97	4
Sigvatr Þórðarson	1150	29
Óláfr inn helgi Haraldsson	133	3
Óttarr svarti	239	6
Þórmóðr Kolbrúnarskáld	309	10
Haraldr harðráði	112	1
Arnórr jarlaskáld Þórðarson	449	5
Þjóðólfr Arnórsson	594	15
Þorleikr fagri	90	1
Steinn Herdísarson	186	2

## Interpretation of the skaldic evidence

It is immediately apparent that rhyme between r and R is widespread in the corpus, as noted already by Finnur Jónsson (1921, 262 f.). As we would have expected from the runic data, the poets of the mid- to late 900s uphold no distinction between the two sounds. Furthermore, Haustlong by Þjóðólfr ór Hvini has five examples of such rhyme. This is important evidence since its conventional dating of c. 900 makes it the second most archaic poem we have.

Intriguingly, the oldest extant poetry, by Bragi Boddason, contains no examples of rhyme between r and R. Since Bragi's work is traditionally dated to the 800s it seems likely that this is no coincidence. Apart from Bragi's work, the corpus under investigation has  $162 \ r/R$  rhymes in 6,792 rhymed lines. If Bragi rhymed r with R at this rate, the probability of obtaining at least one such rhyme in 101 rhymed lines can be calculated as follows:

$$1 - \left(1 - \left(\frac{162}{6792}\right)\right)^{101} = 0.91$$

The result of 91% is below the conventional 95% threshold for statistical significance but this is not a study which can be redone with additional data to obtain more conclusive results. The skaldic and runic data that have come down to us are very limited and all scholars can do is attempt to make as much sense of them as possible.

#### Conclusion

The evidence reviewed in this article is summarized in table 2.

For the period of transition, both the runic and the skaldic evidence is quite sparse but nevertheless the two sources of data seem to be in harmony. The Trå ladle is archaeologically dated to the first half of the 900s and is the earliest runic evidence of the merger of R and r. The poem Haustlong by Þjóðólfr ór Hvini is conventionally dated to "the late ninth or early tenth century" (SkP, 1: 3). These two sources clearly show the merger of the two phonemes which is confirmed by all the younger evidence.

The Bjørneby and Valby stones show the retention of *R*. Both are difficult to date but can be tentatively assigned to the 800s or c. 900 at the latest. As for Bragi Boddason, it seems that "most scholars have accepted that Rdr

Plentiful evidence

merger

Period	Runic evidence	Skaldic evidence	Result
800s	Bjørneby and Valby	Bragi Boddason	R, r distinct
c. 900 or early 900s	Trå ladle	Þjóðólfr ór Hvini	merger
mid to late 900s	Early Manx crosses	Egill, Kormákr etc.	merger

Table 2. Summary of the evidence

c. 1000

[*Ragnarsdrápa*] and Bragi's poetry generally are of ninth-century date" (*SkP*, 3: 28). If the Icelandic sources on Bragi are regarded as reliable, they seem to point to the first half of the 800s (Finnur Jónsson 1894, 417–19).

Based on the combined testimony of the sources, the best estimation for the timing of the phonological merger of r and R in West Norse seems thus to be the second half of the 800s.

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