GERMANIC AND THE RUKI DIALECTS

By CHARLES PRESCOTT
University of Sussex

ABSTRACT

A new relationship is proposed between Germanic, which shows lowering and retraction of vowels before /r/, /w/, /x/, and the ruki dialects of Indo-European, Baltic, Slavic and Indo-Iranian, which have retraction of /s/ following /r/, /u/, /k/, /i/. There are two aspects to the relationship: the Germanic segments correspond directly to three of the four ruki segments and the effects on vowels in Germanic and on /s/ in the ruki dialects may be attributed to the spread of a common phonological feature, Retracted Tongue-root, [RTR].

1 THE GERMANIC MATERIAL

There is a collection of sound changes in early Germanic dialects which may be understood as a lowering and/or a retracting effect on preceding vowels of, originally, the consonants /r/, /w/, /x/. Gothic has removed /w/ from the set, while Old English has added /l/. These changes will be documented, for the most part, by reference to Voyles’ (1992) handy compendium of rules for early Germanic.

1.1 Old English breaking

Voyles (6.1.17 Breaking) gives examples which can be interpreted as the retraction of the second part of front vowels before /r/, /w/, /x/, /l/:

1.1.1  /r/  *erθæ  >  eorpe  ‘earth’
1.1.2  /w/  *knewes  >  cneowes  ‘knee’ gen. sing.
1.1.3  /x/  *mæxt  >  meaht  ‘power’
1.1.4  /l/  *æll  >  eall  ‘all’.

---

1 These ideas have been presented to a meeting of the Research on Languages and Linguistics Seminar at the University of Sussex and as a poster at the 12th Manchester Phonology Meeting, both in May 2004.
An analogue of the effect before /r/ may be found in modern English in the "centering diphthongs" of Wells' (1982: 153f) near and square sets in some accents and the pronunciation of the fleece vowel before /l/ can show the same near diphthong eg in field in some London accents (ibid.: 315). (Lowering and retraction of vowels adjacent to /r/ is also a characteristic of modern Danish.)

1.2 Old High German monophthongization

/ai/ > /ɛ:/ before /r/, /w/ and Germanic /x/.

The /a/ is raised to /ɛ/ by i-umlaut before /i/ and the /i/ is lowered to /ɛ/ before /r/, /w/ and Germanic /x/.

Examples from Voyles: 9.1.3a The Changes in [ai]:

1.2.1 /r/ *saira > sēr 'pain'
1.2.2 /w/ *saiwaz > sēu 'sea'
1.2.3 /x/ *aixtiz > ēht 'wealth';

but there is no lowering before OHG h from Germanic /k/:

1.2.4 /k/ *aik > eih 'oak'

1.2.5 Voyles 9.1.3b The Changes in [au]

The OHG monophthongization of /au/ to /ɔ:/ does not form part of the evidence for the claims of this paper because the conditions for its operation are different from the conditions for the changes in [ai] above, but the form of its conditions does in fact lend support to those claims.

The monophthongization of /au/ took place before coronal consonants (t,θ,d,s,z,l,r,n)

/s/ *kaus > kōs 'chose'

and before Germanic /x/

/x/ *taux > zōh 'pulled',
but again not before OHG h from Germanic /k/  

/k/  *auk  >  ouh 'also'.

This is like the monophthongization of /ai/ in happening before /r/ and Germanic /x/ but unlike it in also happening before other coronal consonants and in not happening before /w/  

/w/  *dauw-  >  tou 'dew'  (Vennemann (1972: 864)).

The rule could alternatively be stated as: not before labials and velars; if only the reflex of Germanic /x/ were not velar. Now Vennemann, in his (1972: 875) treatment of these same Germanic data, concludes that the OHG reflex of Germanic /x/ was a retracted uvular fricative [χ]. The claims of this paper have the corollary that Germanic /x/itself was uvular which makes its reflex in OHG as a uvular unsurprising. That this simplifies the conditions for the changes in [au], may be seen as indirect support for these claims.

OHG developed a velar fricative which did not allow the monophthongization of [au], but at some time after the monophthongization the uvular fricative from Germanic /x/ merged with the new velar. In Dutch, which did not develop such a velar fricative, the reflex of Germanic /x/ remains uvular.

1.3  Gothic lowering

Voyles: 4.2.4 First Umlaut, 3.1.10 East Germanic First Umlaut  
gives lowered alternants of /i/, /u/ before /r/, /x/, /xʷ/:  

<table>
<thead>
<tr>
<th>1.3.1</th>
<th>/r/</th>
<th>waír</th>
<th>'man'</th>
<th>waúr̚ms</th>
<th>'worm'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.2</td>
<td>/x/</td>
<td>maí̯hstus</td>
<td>'dunghill'</td>
<td>daú̯htar</td>
<td>'daughter'</td>
</tr>
<tr>
<td>1.3.3</td>
<td>/xʷ/</td>
<td>laí̯h̚wum</td>
<td>'we lent'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

where aí, aú are taken to represent short, mid monophthongs.

1.4  Old Icelandic lowering and monophthongization

The situation in OI is not so clear but  
Voyles: 5.1.1 The [ai] Changes has /ai/ > /aː/ before /r/ and /x/:
1.4.1 \(/{r}/ \ast \text{air} \quad \text{‘early’} > \text{\textit{ár}}\)

1.4.2 \(/{x}/ \ast \text{faihaz} \quad \text{‘shining’} > \text{\textit{fúr}}.\)

Gordon (p. 275) **Influence of \(w\)** has additionally \(ai > æ\) before \(w\):

1.4.3 \(/{w}/ \ast \text{saiwR} > \ast \text{sæuR} > \text{sjór ‘sea’}\)

with the \(æ\) preserved in the genitive \(sævar\). This seems similar to the OHG monophthongisation and maybe the difference from the Voyles rule for \(/{r}/, /{x}/\) is that it applied after i-umlaut.

Voyles 5.1.12 **The [au] Change** has monophthongisation before \(h\):

1.4.4 \(/{x}/ \ast \text{hauhaz} > \text{hór ‘high’}\)

and other examples before \(h\) from word-final devoicing.

Gordon (p. 275) **Influence of \(h\)** has lowering of \(i, u\) before \(h\) in:

1.4.5 \(/{x}/ \text{rétt\textit{a} ‘correct’, Danish rette cf. OE rihtan}\)

1.4.6 \(/{x}/ \text{sátt ‘sickness’} \quad \text{cf. OE suht.}\)

All these may be taken as lowering of \(/i/\) before \(/r/, /w/\) and lowering of \(/i/, /u/\) before \(/x/\).

1.5 **The [RTR] proposal**

These early Germanic data have been thoroughly dug over by Vennemann (1972). He uses (873) a variant of \(+\text{low}\) with the force of ‘relatively low’ as the active principle. A modern feature which will do this job without the need for \(ad \ hoc\) qualification, Retracted Tongue-root, [RTR], or Pharyngeal Constriction, is proposed here. It can characterize consonants, as in emphasis in Arabic (see below in 3), and have a relative lowering effect on vowels and a retracting effect, particularly on front vowels. This also seems more apposite to the OE data in 1.1, where the spelling is more suggestive of retraction than lowering alone.

Germanic \(/r/, /w/, /x/\) were emphatic in Arabic terms, having the feature [RTR] which could spread and affect preceding vowels in various ways in the dialects.
2.1 Baltic

Lithuanian has preserved distinct reflexes of /s/ > /š/ after /r/, /u/, /i/:

2.1.1 /r/ viršūs 'top'
2.1.2 /u/ aūšti 'dawn'
2.1.3 /i/ áiškus 'clear'

where the retracted allophone of /s/ has merged with the /š/ from /k̂/ by satem palatalization. Andersen (1968) argues cogently that the many cases where Lithuanian has /s/ after /i/, /u/, which have led many to regard Baltic as a marginal member of the ruki group, may be seen as morphological regularizations. It is examples of the change after /k/ that are hard to find: Andersen cites

2.1.4 ?/k/ áugštas 'high'

which is possible if the <g> represents a /k/ derived from ?/g/ before the operation of the ruki rule, though it is also possible that this is an example of /š/ after /u/.

2.2 Slavic

In contrast to Lithuanian the reflex of /k̂/ by satem palatalization has merged with /s/ and does not provide a phoneme to attract retracted allophones of original /s/.

These retracted allophones of /s/ became a distinct phoneme /x/:

Russian

2.2.1 /r/ verx 'top'
2.2.2 /u/ sux 'dry'
2.2.3 /i/ tix 'quiet'.

Andersen has some discussion (1968: 176f) of the origins of this phoneme.

Examples of the change after /k/ are again hard to come by. He cites the Old Church Slavonic sigmatic aorist (: 179):
2.2.4 /k/  rěxū 'I said' from rěk-s-om

2.3 Iranian

The retracted /s/ merged with /š/ which had arisen from /r/ in certain combinations, see Mayhofer (1989: 12). Examples from Burrow (1965: 79) and Mayrhofer (1989: 9):

2.3.1 /r/ O. Pers. adaršnauš 'he dared'
2.3.2 /u/ Av. huška- 'dry'
2.3.3 /k/ Av. vaxš 'voice'
2.3.4 /i/ Av. viša 'poison'

2.4 Indic

Sanskrit preserved the retracted allophone of /s/ by assimilating it to the retroflex phoneme, /ṣ/, presumably acquired from Dravidian speakers and loanwords. Examples from Burrow (1965: 79):

2.4.1 /r/ varšman- 'summit'
2.4.2 /u/ mūṣ- 'mouse'
2.4.3 /k/ kṣudra- 'small'
2.4.4 /i/ viša 'poison'

2.5 [RTR] again

The same feature suggested to account for vowel lowering and retraction in early Germanic, Retracted Tongue-root [RTR], can also be used to explain /s/ retraction in the ruki dialects. It is known to spread in vowel and consonant systems. Here it spreads from both vowels and consonants of the /r/, /u/, /k/, /i/ phonemes to a following /s/.

It is proposed, therefore, that /u/, /i/ were lowered/retracted, perhaps to [ö], [ê], and /k/ retracted to the uvular [q] in these dialects of Indo-European.
An analogue of these effects of the feature [RTR] on consonants in the *ruki* group and on vowels in Germanic may be found in Semitic. Watson (2002: 10.3) describes the spread of pharyngeal constriction or ‘emphasis’ in eg Cairene Arabic:

3.1 ṭifl ‘child’  [ṭifl]

from the initial consonant to both vowel and consonants. She also notes (10.4.4) lowered vowel glides, resembling OE breaking, adjacent to pharyngeals in both Cairene Arabic:

3.2 /beːʕ/  [beːʕ] ‘sale’

and in Tiberian Hebrew

3.3 /ruːh/  [ruːh] ‘spirit’

In a more technical study, Watson (1999: 290) attributes the spread of emphasis in Arabic dialects, from the Emphatics eg T, D, S, to consonants and vowels, to the feature [RTR].

Rose (1996: 81) concurs and adds the uvulars: q, χ, ρ, r and the pharyngeals: h, ŋ to the set of consonants characterized by [RTR] and causing retraction of vowels by the spread of [RTR].

4 THE SOUND OF NORTHERN INDO-EUROPEAN

There is a direct correspondence between the RTR segments proposed for Germanic and the *ruki* dialects:

<table>
<thead>
<tr>
<th>Germanic</th>
<th><em>ruki</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>w</td>
<td>ū</td>
</tr>
<tr>
<td>x</td>
<td>k</td>
</tr>
</tbody>
</table>

with the exception of *ruki* vocalic ū, and i. This is a new isogloss connecting Germanic with the *ruki* dialect group of IE.
The association of Germanic with the ruki group is shown in bold in Figure 1 as Northern Indo-European (nIE). Though the feature [RTR] may often characterize /r/, its gratuitous addition to /i/, /u/ (making them lower) and to /k/ (retracting it to [q]) in the ruki group is seen as an arbitrary dialect marker. It is worth emphasising Vennemann’s (1974: 96) point that neither r u k i nor r w x are natural classes. But in this dialect area they share a common feature, [RTR].

The posited lower realization of /u/ may be a reason, by compressing the vowel space below it, for the widespread merger /o/ and /a/ in ruki dialects.

Germanic has evidence for [RTR] in /r/, /w/ (consonantal /u/) and /x/ (the reflex of IE /k/) but not in /i/ or vocalic /u/. That it also has merger of /o/ and /a/ may suggest that the earliest Germanic shared more fully in the ruki dialect marking. If that extended to /i/, making it lower, that may have contributed to the early merger of /i/ with /e/ in Germanic.

<table>
<thead>
<tr>
<th></th>
<th>centum</th>
<th>satem, ruki</th>
</tr>
</thead>
<tbody>
<tr>
<td>nIE</td>
<td>Germanic</td>
<td>Baltic / Slavic</td>
</tr>
<tr>
<td>Celtic</td>
<td>Albanian</td>
<td>Armenian</td>
</tr>
<tr>
<td>sIE</td>
<td>Italic</td>
<td>Greek</td>
</tr>
<tr>
<td>wIE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Core Indo-European dialects (ie. excluding Anatolian and Tocharian)

Acknowledgements

Many thanks to Sussex University for a visiting research fellowship and to Richard Coates for the Vennemann and Mayrhofer papers referenced and many helpful comments. Thanks also to Martin Kümmel and Benedicte Nielsen for saving me from wrong assumptions about Sanskrit. Thanks for helpful comments to Jonathan West and two anonymous, painstaking reviewers at Sussex. Thanks to Jan Bičovský for free and frank discussions. Thanks to Heather Goad for the Rose reference and to Alex Bellem for her ‘emphatic’ references.
My thanks to Birgit Anette Olsen for raising the question of Armenian membership of the ruki group. I think there is the exciting possibility that Armenian displays both a change to /s/ like the ruki group and also changes to vowels like Germanic. With regret, I must leave the investigation of this to someone with expertise in Armenian.

Thanks also to the anonymous reviewer who has prompted a more explicit and comprehensive treatment of OHG monophthongization and to Mary Dowson for help with understanding German.

References

Watson, Janet C. E. 2002. The phonology and morphology of Arabic. OUP 21, 268-279