The East Baltic Accentuation of the Former Root Nouns in PIE

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1 Introduction
1.1 Preliminaries

- Tones:

<table>
<thead>
<tr>
<th></th>
<th>Lithuanian</th>
<th>Latvian</th>
<th>for PBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>⟨´⟩ (VV falling)</td>
<td>⟨´⟩ (sustained), ⟨´⟩ (broken)</td>
<td>underline</td>
</tr>
<tr>
<td>Circumflex</td>
<td>⟨´⟩ (IVV rising)</td>
<td>⟨´⟩ (falling)</td>
<td>no mark</td>
</tr>
</tbody>
</table>

- de Saussure (1894: 492ff.) hypothesized that PIE long vowels (and also long diphthongs (Kuryłowicz 1948: 1ff.)) are reflected with the acute tone in Balto-Slavic (BS), whereas Kortlandt (1985) considers they yielded circumflex. However, cf. žvėris (3) ‘wild animal’ (acc.sg. žvėję) < PIE *ghūr.

- The phonetic realization of “acute tone” remains unclear. The “acuteness” of a syllable nucleus will be denoted with an underline following a convention introduced by Jasanoff (2004).


  1. pronominal forms (tię [< *toi pl.nom. ~ gerieji ‘the good (pl.nom)’], tuōs [< *tons pl.acc. ~ geruōsius ‘id. (pl.acc.)’; Zinkevičius 1980–81: II, 162])
  3. prepositions/adverbs (nuō ‘from’ ~ nōtaka ‘bride’ [Zinkevičius: id.]; vēl ‘again’ ~ Latv. vēl ‘still, yet’ [< PB *vēli; Būga 1924: 95]; vōs ‘hardly’ ~ OCS jedsva, SCr jèdva, Čak. jedvǎ; PBS *edvās)
  4. 3rd person future forms of monosyllabic stems šōks – šōkti ‘to jump;’ vēs – vēti ‘to drive,’ etc.
In this talk, the second category “the former root nouns” will be discussed.

1.2 Data
The Baltic reflexes of the PIE nouns which are securely reconstructed as root-nouns with “long root” according to preceding works, e.g. Schindler (1972); Larsson (2010); Villanueva Svensson (2011):

(1) a. nónis (1) ‘nose’ (∼ Latv. nāss)
   b. žveris (3) ‘wild animal’ (∼ Latv. zvērs)
   c. širdis (3) ‘heart’ (∼ Latv. sīrds), šerdis (1/3/4; ∼ Latv. seřde) ‘core of wood’

(2) Latvian forms to be considered
   a. sāls ‘salt’ (m./f.)
   b. gūovs ‘cow’ (f.)

They are typically i-stems in Baltic (and Slavic), since a PBS sound change *n > *i in the accusative endings caused them to join the i-stems.

1.3 Research Question
Whereas the circumflex tone of the Latvian forms in (2) seems to exhibit the result of MC, the acute tone of other forms in (1) does not. How could MC affect those forms to give rise to different tones in them?

2 Summary of Preceding Works
2.1 Paradigmatic Patterns of Root Nouns
Root nouns are known to have had the following types of paradigms in PIE (Schindler 1972: 31ff.):

(3) a. acrostatic type:

<table>
<thead>
<tr>
<th>Case</th>
<th>Form</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.sg.</td>
<td>Có(C)-s</td>
<td>*gʰou-s (&lt; → *gʰouš) ‘cow’</td>
</tr>
<tr>
<td>acc.sg.</td>
<td>Có-m / CóC-m</td>
<td>*gʰou-m (&gt; *gʰoum)</td>
</tr>
<tr>
<td>gen.sg.</td>
<td>Có(C)-s</td>
<td>*gʰešus</td>
</tr>
</tbody>
</table>

   cf. Skt. gám, Gk. βοῦ (Dr. βōv) (Skt. βoūv)
b. mobile type:

nom.sg.  Cé(C)-s  e.g.  *kérð (> *kér) ‘heart’ (neuter)
acc.sg.  Cé-m / CéC-m  *kérð (> *kér)
cf. Gk. κ῀ ηρ, Lat. cor
gen.sg.  R(∅)-ós  *krd-ós
cf. Lith. širdis (3)
or

nom.sg.  Cá(C)-s  e.g.  *sal-s (> *sáI) ‘salt’
acc.sg.  Cá-m / CáC-m  *sal-m
cf. OCS solš
gen.sg.  R(∅)-ós  *sl-ós ? (no attestation)

NB: Some inflectional forms (nom.sg., gen.sg., and also in acc.sg. when
the root ends in a resonant) were monosyllabic in PIE.

2.2 Morphological History of Root Nouns: PIE ~ PBS

• In nom.sg., the root could be lengthened either by Semerenyi’s Law [e.g.,
*gh ger-s > *gh gēr as in Gk. ἔρη, -ός, Lith.  žvēris ‘wild animal’] or by the
loss of a consonant in the final consonant cluster [*pod-s > *pōd; Sihler
(1995: 130, 280)]

• Expansion of syllabic resonants (*R > iR) affected the accusative end-
ings (PIE *-m (sg.acc.)/*-ms (pl.acc.) > PBS *-in / *-ins), together with
nom.du. -i (< *-iH), causing root nouns to join i-stems (Vaillant (1958);
Stang (1966: 219); Larsson (2010: 34)) → former monosyllabic forms re-
sulted in disyllabic forms.

  – nominative singular (and also accusative singular of ‘heart’ and ‘cow’)
    were in the environment of MC before this.
  – accusative stems tend to be generalized.

• Rasmussen (1999: 480ff.) discusses the possibility of MC to be traced back
to a PBS stage, based on pronominal forms, s-aorist forms, and alleged
root-nouns.

However, in light of the discussions in Larsson (2002) and Larsson (2010),
Rasmussen’s analysis should be applied to better-established root nouns.

• Villanueva Svensson (2011):
– for (2b), the monosyllabic *gw¯om is likely to have been inherited in PBS as well as in other IE languages; *gw¯om > *gw¯om.
– B-S could inherit two different paradigms:

(4) a. nom.-acc.sg. *nás-/ obl. *nás- (= 1a)
   b. nom.-acc. sg. *gʰuér-/ obl. *gʰuér- (= 1b)

   b. nom.sg. *sál-/acc.sg. *sál- (= 2a)

While (4a), (4b), (5a) are derived from the stem of accusative-origin, (5b) from the nominative-originated stem.

Why was nominative favored for particularly (5b)?

3 The Ablauting/Leveled Paradigms Inherited in PBS and PB

As observed in Villanueva Svensson (2011), the East Baltic accentuation of the former root nouns does not look coherent. We will consider how MC could have affected the paradigms of the nouns in (1) and (2), looking into the ablauting patterns of them in greater detail. The list of the cognates are from previous studies such as Schindler (1972), Derksen (2008) and Larsson (2010).

3.1 A Special Case: Latv. ģuovs [2b]

cognates:
other IE: Skt. nom.sg. gáus, acc.sg. gám, gen.sg. góś ‘cow;’ Gk. βoūς (Dor. βούς), acc.sg. βoūv (Dr. βούν); Lat. bōs;

• no evidence for BS ablauting paradigm; but because of the operation of Stang’s law in PIE, BS inherited a monosyllabic accusative singular form with a long root: *gôm (< *gʷôm < *gʷoum).

• relative chronology: MC → generalization of i-stem → Osthoff’s Law (shortening of long diphthong: *VR > ˘VR)
If Osthoff’s law took place before the generalization of i-stems, it would have given rise to Xgous or possibly Xgom (→ Latv. Xgavis).
### 3.2 Leveled Paradigms in PBS

#### 3.2.1 žvēris (3) ‘WILD ANIMAL’ [1B]

<table>
<thead>
<tr>
<th>nom.sg.</th>
<th>acc.sg.</th>
<th>gen.sg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>*gʰwous</td>
<td>*gʰwōum (&gt; *gʰwôm)</td>
</tr>
<tr>
<td></td>
<td>*gʰwōus</td>
<td>*gʰwôm</td>
</tr>
</tbody>
</table>

**PBS**
- acute assignment to long vowels
  - *gōus* | *gōm* | *geu-s*

**MC**
- late PBS stem-final *v and the ending -im into the accusative stem
  - *gōvs* | *gōvim* | *geu-s*

- generalization of i-stem
  - *gōvi-s* | *gōvi-m* | *gōvi-es*

**Osthoff’s Law: vacuous operation**

*The generalized stem *žvēri-* provided the attested forms.*
3.2.2 \textit{nòsis} (1) ‘NOSE’ [1A]

cognates:


| PIE | Late PIE | PBS | MC |
| nom.sg. | acc.sg. | obl. | nom.pl. |
| PIE | *nās-s (> *nās*) | *nās-m (*ns-? →) *nās- *nas-(i)h₁ (→ *nas-oh₁) |  |
| Late PIE | ‘nostril’ | semantic split of paradigm |  |
| nom.sg. | acc.sg. |obl. | ‘nose’ |
| *nās | *nās-m | *nās-’ | *nas-oh₁ |
| late PIE | loss of laryngeal |  |
| *nās | *nās-m | *nās-’ | *nas-ō |
| (→ PS / PGmc.) |  |

1Fritz (1996: 15) reconstructs an amphikinetic paradigm derived from a root *h₂enh₁- ‘breathe,’ i.e., nom.sg. *h₂enh₁-ōs / acc.sg. *h₂enh₁-os-m / gen.sg. *h₂enh₁-s-ēs. He considers in Baltic this paradigm developed to PB nom.sg. *nōsь (PIE *nōs) / acc.sg. *nāsim, where the root was eventually leveled with *-ā-. On the other side, he considers that the Slavic forms are derived from an old dual stem of the amphikinetic paradigm *h₂n-ōs-oh₁ (> PS *nōsa). Although it is questionable if it is plausible to reconstruct an amphikinetic paradigm with rather complicated analogical process for ‘nose,’ the argument for the reinterpretation of the nom.acc. dual as nom.acc.plural of the o-stem sounds plausible in light of similar arguments for the Germanic cognates.
3.3 Ablauting Paradigms Still in PBS

3.3.1 sâls ‘SALT’ [2A]

Cognates:
- Baltic: OPruss. sal (unknown length of the root)
- Slavic: OCS solb (f.), SCr. sô, sôli; Sln. sôl; soli < PS *solb (c)
- Other IE: Gk. ἁλς, ἁλ ΄ ος m. ‘salt,’ f. ‘sea,’ Lat. sâl, salis n./m. ‘salt’

The Proto Slavic form *sôlb has a short root in the same i-stem as in Baltic. This suggests an ablauting paradigm for Proto-Balto-Slavic (Larsson 2010: 75).

<table>
<thead>
<tr>
<th>‘salt’</th>
<th>PIE</th>
<th>PBS</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.sg.</td>
<td>*sâl-s (&gt; sâl)</td>
<td>*sâl-m</td>
<td>(*sl-? →) *sal-´</td>
</tr>
<tr>
<td>acc.sg.</td>
<td>*sâl-</td>
<td>*sâl-im</td>
<td>*sal-´</td>
</tr>
<tr>
<td>obl.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Acute assignment to long vowels and extension of syllabic resonant
- Generalization of i-stem, keeping the ablaut pattern
- Osthoff’s law: vacuous operation

- Nom.sg. stem *sâli- was generalized in Baltic, whereas acc.sg. stem *sâli- in Slavic

3.3.2 širdis (3) ‘HEART’ [1C]

Cognates:
- Baltic: Latv. sîrds, ’OPruss. seyr (sêr/ neut. sg.nom. only in Elbinger Vocabulary; with a-stem masc. declension in Catechisms) ‘heart,’ Lith. šerdis (1/3/4) ‘the core of wood’ < PB *šerdis/šîrdis
- Slavic: OCS sîrdzece, Cz sîce < šîrdi- (~ Gk. καρδία, OIr. cride < *krîdóm); OCS sîrda ‘middle,’ SCr sîjêda ‘Wednesday’
- Other IE: Gk. καρδία, καρδιά (n.), Lat. cor, cordis (n.), Skt. hârdi (< *kêrd-h2; n.)

- This may be also a peculiar case in that it involves a split of the paradigm in accordance to the meanings.
Ablauting paradigm in PBS: both Baltic and Slavic preserve cognates in zero grade and e-grade with similar semantic variations

- **neuter** gender: cf. Lat. *cor, cordis* (n.), Skt. *hárdi*, and Gk. *xφρ*, *Xηρος* (n.) in neuter; it turned animate in the later stage in BS, through a process of neuter plural (= collective) reinterpreted as a feminine *širdā*, or through a thematization as attested by *širdai* (3/4) ‘quarrel.’ (Szemerényi 1970: 531)

- **PIE** *kërd* (>*kër*) *kërd* (>*kër*) *kërd-* *kërd-(e)h₂* (→ *kërd-(e)h₂?*)
  - PBS palatalization of *k*, and Winter’s law
  - Acute assignment to long vowels
  - Extension of syllabic resonant
  - MC
  - Osthoff’s Law
  - Split of paradigms

- **PIE** *kēr* → ··· → OPruss *sēr* (unknown accentuation; remains enigmatic)

- *šērd-ā* → Lith. *šerdis* (1/3 (→ 4))


- Thus, the results of MC in this paradigm seem to have died out.
4 Conclusion

- Ablauting paradigms: some chance for the nominative singular form with MC to survive → we find Latv. sāls with the result of MC.
- Leveled paradigm: always no trace of MC in the attested forms.
- Latv. gūvs is a special case in that it still remains with the result of MC despite of no trace of ablaut. This is because of the monosyllabic acc.sg. form resulting from Stang’s Law in PIE.

5 Excursus: šuō ‘dog’ (4)

<table>
<thead>
<tr>
<th>Baltic: Latv. suns (dialect so [suo]), ’OPruss. sunis ‘dog;’ PB *sō</th>
<th>other IE: Gk. χύων, gen.sg. χύνος, Ofr. cud, gen.sg. con, Skt. śuá, gen.sg. śunās &lt; PIE nom.sg. *kū(-)ón-s, gen.sg. *kū(-)n-ós</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognates:</td>
<td>Gk. κύων, gen.sg. κυνός, OIr. cūlá, Skt. śuá, gen.sg. śunās</td>
</tr>
<tr>
<td>It is unclear whether it was a root nouns or an n-stem noun.</td>
<td></td>
</tr>
<tr>
<td>The ending of the nom.sg. is considered to have undergone the following sound change in PIE: *-on-s &gt; *-ōn &gt; ŏ / #</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>*kū(-)ón-s</th>
<th>*kū(-)n-ós</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.sg.</td>
<td>acc.sg.</td>
</tr>
<tr>
<td>PIE</td>
<td>*kū(-)ón-s</td>
</tr>
<tr>
<td>PBS</td>
<td>palatalization of *k, acute assignment</td>
</tr>
<tr>
<td>*šūō</td>
<td>*šùnim</td>
</tr>
<tr>
<td>extension of syllabic resonant</td>
<td></td>
</tr>
<tr>
<td>*šō</td>
<td>*siónim</td>
</tr>
<tr>
<td>MC</td>
<td></td>
</tr>
<tr>
<td>*šō</td>
<td>*siónim</td>
</tr>
<tr>
<td>generalization of i-stem??</td>
<td></td>
</tr>
</tbody>
</table>

- *u disappeared between a sibilant and a vowel; cf. Lith. sesuō ‘sister’ ~ Skt. svásar-, Goth. swistar.
- The nominative singular of Latv. suns is an i-stem form (*sunis), but in the Lithuanian paradigm, the i-stem was not generalized throughout, with the
nominative singular šūō still keeping n-stem ending (NB: in Lithuanian šūō is classified as an n-stem synchronically). This may provide an interesting case where a trace of MC can be persistently preserved when the generalization of the accusative stem in i-stem has failed.

Bibliography


Kluge, F. 1882. “Sprachhistorische Miscellen” Beiträge zur Geschichte der deutschen Sprache und Literatur, 8, 506–539.


