

Historical
phonology in
Lithuanian and
Balto-Slavic:
relative chronology
of *Monosyllabic*
Circumflexion

Yoko Yamazaki

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Yoko Yamazaki

Baltic Languages, Stockholm university

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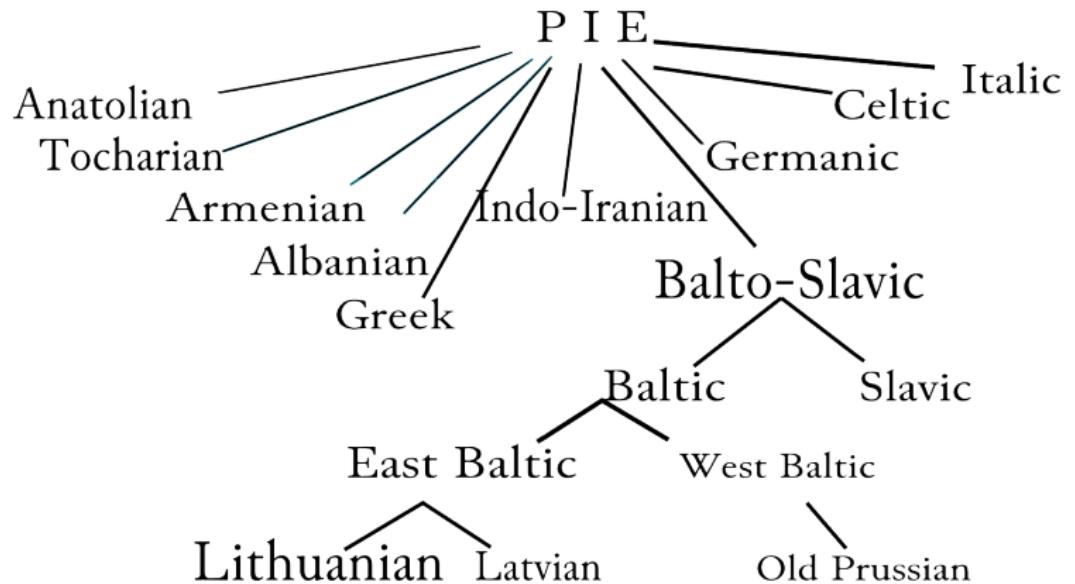


Stockholm
University

Lithuanian as an Indo-European language

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Monosyllabic Circumflexion

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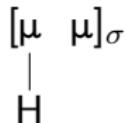
In Lithuanian (also in other Balto-Slavic languages), long vowels in monosyllabic words exhibit a **circumflex** tone instead of the expected **acute**.

cf. Hanssen (1885), Zinkevičius (1980–81: II, 161ff.),
Rasmussen (1999)

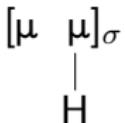
Acute and circumflex tones I

Lithuanian distinguishes two types of tones on bimoraic syllable nuclei (i.e., long vowels, diphthongs, and mixed diphthongs [tautosyllabic vowel + resonant]);

(i) acute (falling) $\langle \acute{V} \rangle$
= /VV/



(ii) circumflex (rising) $\langle \tilde{V} \rangle$
= /V̄V/



Blevins (1993)

e.g., *výras* 'man'
 gáuti 'to get'
 várna 'crow'

v̄nas 'wine'
naūjas 'young'
vařnas 'raven'

Acute and circumflex tones II

Historical Laws that affected acute vowels:

- ▶ Saussure's Law: a high tone of a non-acute syllable is attracted to its immediately following acute syllable.
 - ▶ *gēras* (AP4; nom. sg. m.) 'good' ~ *gerúosius* (acc. pl. m. def.)
diēvas (AP4; nom. sg.) 'god' ~ *dievùs* (acc. pl.)
 - ▶ *výras* (AP1; nom. sg.) 'man' ~ *výrus* (acc. pl.)
- ▶ Leskien's Law: a word-final acute long vowel is shortened.
 - ▶ *gerié-ji* (nom. pl. m.) 'the good' ~ *gerì* (nom. pl. m.)
 - ▶ *geró-jí* (nom. sg. f. def.) 'the good' ~ *gerà* (nom. sg. f.) 'good' (note! PB *ā > Lith. o)
 - ▶ *sùkamési* 'we turn ourselves' (refl.) ~ *sùkame* 'we turn'
 - ▶ *gerúosius* (acc. pl. m. def.) 'the good' ~ *gerùs* (acc. pl. m.)
 - ▶ *gerú-ju* (nom.-acc. du. m.) 'the good' ~ *gerù*

Acute tone from a historical viewpoint I

A systematic correspondence of Lithuanian acute tone and long vowels in the cognate words in other Indo-European languages:

Lith. *výras* 'man,' Skt. *vīrás*

Lith. *nósis* 'nose,' Skt. *náśā*

Lith. *stóti* 'to stand,' Skt. *sthā-*

Lith. *ménuo* 'month' Goth. *mēna* 'moon'

de Saussure (1894: 492ff.) hypothesized that 'old' long vowels received the acute tone in Lithuanian.

Later, Kuryłowicz (1948) showed that the same applies to long diphthongs as well:

Lith. *vík̥as* Skt. *vṛka-* 'wolf' (< PIE *ṛkʷo-)

Lith. *vílna* Skt. *úrṇa* 'wool' (< PIE *ṛHneh₂)

Acute tone from a historical viewpoint II

Kuryłowicz (1948) assumed that long diphthongs, as well as long syllabic sonants, received the acute accent when they were shortened in the Proto-Balto-Slavic stage (Osthoff's Law). He proposed that those long diphthongs and long syllabic sonants are generated as the result of compensatory lengthening caused by laryngeal loss: * $\overset{\circ}{R}H$, * $V\overset{\circ}{R}H$ > * \bar{R} , * $\bar{V}R$ > Lith. $\dot{i}R$, $\acute{V}R$:

- ▶ Lith. $\dot{v}\overset{\circ}{l}na$, Skt. $\acute{u}rnā-$ < PIE * $\overset{\circ}{u}lH-neh_2$ 'wool';
Lith. $\dot{g}\overset{\circ}{r}ti$, past. pass. part. $\dot{g}\overset{\circ}{r}tas$, Skt. $\acute{g}\overset{\circ}{u}rtas$
'pleasant,' Lat. $grātus$ 'beloved' < PIE * $\overset{\circ}{g}\overset{\circ}{r}tos$ <
* $g\overset{\circ}{r}Htos$
- ▶ $\dot{g}érti$ 'to drink' < PIE * $g^w\overset{\circ}{e}rH-$ vs. penkì, f. $peñkios$,
Skt. $páñca$, Gk. $\pi\acute{e}ntε$ 'five' < PIE * $penk^we-$.

Christian Stang (1957) further made a contribution to show the systematic correspondence of Slavic and Baltic tones.

Acute tone from a historical viewpoint III

- ▶ Lith. AP 1 (*dūmai*; Latv. *dūmi* ‘smoke’ (nom.pl.)) ~
(a) constant root stress [SCr. *dīm*]
- ▶ Lith. AP2 (*kařtas* ‘once, time’; *rankà*, *rañkà* (sg. acc.)
'hand,' Latv. *rùoka*) ~ (b) constant end-stress
SCr. *krāt* ‘once, time’ *rūku* ‘arm (acc.sg.)’]
- ▶ Lith. AP3 (*galvà*, *gálvq* (sg. acc.) ‘head’; Latv. *gaīva*)
~ (c) mobile stress [SCr. *gláva*, *glāvu* (acc.sg.)]
- ▶ Lith. AP4 (*draūgas* ‘friend’; Latv. *dràuggs*) ~ (c)
mobile stress [SCr. *drūg*]

Thus, the tonal contrast “acute vs. non-acute” is reconstructed in PBS. It is generally understood that the acute tone is a marked feature, while non-acute (or circumflex) is unmarked. However, the phonetic reality of such acute tone or acute feature is unknown. Stang (1966: 137) and Jasanoff (2004: 251) speculate it to be a glottalic feature comparable to present day Danish *stød*.

The categories where MC is observed

- ▶ the 3rd person future forms of monosyllabic root

duōs ~ *dúoti* 'give' (← *deh₃-; Gk. δίδωμι);
dēs ~ *déti* 'put' (← *d^heh₁-; Skt. dadhāti)

- ▶ pronominal forms

- ▶ *tiẽ* 'that' (m.pl.nom.) ~ *ger-íe-ji* 'the good'
(m.pl.nom.) (< *-oi) cf. OCS *ti*, Skt. *te*
- ▶ *tuõ* 'that' (m.pl.acc.) ~ *ger-úo-ju* 'the good'
(m.pl.acc.) cf. Skt. *tān*, Gk. τούς

- ▶ reflexes of PIE root nouns

Lithuanian: *šuõ* 'dog,' cf. Skt. śvá, Gk. κύων; *žmuõ*
'man' cf. Lat. *homo*

Latvian: *gùovs* 'cow' cf. Skt. gáus < gōu-s; *sàls* 'salt'
cf. Lat. *sàl*

- ▶ adverbs/prepositions/particles

nū 'now' ~ OCS *nyně* 'now,' Skt. *nū*, Gk. νῦν 'now';
vēl 'again' ~ Latv. *vēl*'

- ▶ Distribution/condition of MC in each category

Not all the monosyllabic forms have the circumflex tone, i.e., there are exceptions: */is* 'will rain (3p.)' (~ */ýti*), *bùs* 'will be (3p.)' (~ *búti*)
- ▶ Relative Chronology of MC

Rasmussen (1999, 2007), Villanueva Svensson (2011) maintain that MC can be Proto-Balto-Slavic, while Kortlandt (2014) recognizes two chronological layers of MC (Proto-Balto-Slavic, and Lithuanian Aukštaitian dialects).

3rd person future forms: irregularity I

future paradigm of *dúoti* 'give'

sg. 1.	<i>dúosiu</i>	du.	1.	<i>dúosiva</i>	pl.	1.	<i>dúosime</i>
2.	<i>dúosi</i>		2.	<i>dúosita</i>		2.	<i>dúosite</i>
3.	<i>duōs</i>			—			—

future paradigm of *būti* 'be'

sg. 1.	<i>būsiu</i>	du.	1.	<i>būsiva</i>	pl.	1.	<i>būsime</i>
2.	<i>būsi</i>		2.	<i>būsita</i>		2.	<i>būsite</i>
3.	<i>būs</i>			—			—

future paradigm of Latv. *duôt* 'give'

sg. 1.	<i>duôšu</i>	pl.	1.	<i>duôsim</i>
2.	<i>duôsi</i>		2.	<i>duôsit</i>
3.	<i>duôs</i>			—

3rd person future forms: irregularity II

Distribution of MC and shortening:

► MC (infinitive – 3p. future):

- ▶ *šókti* – *šōks* 'to dance'
- ▶ *déti* – *dēs* 'to place'
- ▶ *dúoti* – *duōs* 'to give'
- ▶ *trúkti* – *trūks* 'to lack'
- ▶ *grústi* – *grūs* 'to crush'
- ▶ *gnýbtí* – *gnýbs* 'to pinch, bite'
- ▶ *žnýbtí* – *žnýbs* 'to pinch, to tweak'
- ▶ *klýsti* – *klýs* 'to be mistaken'
- ▶ *slýsti* – *slýs* 'to slide,' etc.

► shortening:

- ▶ *bliúti* – *bliùs* 'to bleat'
- ▶ *búti* – *bùs* 'to be'
- ▶ *púti* – *pùs* 'to rot'
- ▶ *džiúti* – *džiùs* 'to dry, wither'
- ▶ *griúti* – *griùs* 'to fall down'

3rd person future forms: irregularity III

- ▶ *gýti – ḡis* ‘to get better’
- ▶ *kliúti – kliùs* ‘to touch’
- ▶ *lýti – l̄is* ‘to rain’
- ▶ *rýti – r̄is* ‘to swallow’
- ▶ *rúgti – rùgs* ‘to grow/turn sour’
- ▶ *sýti – s̄is* ‘to link to’
- ▶ *šlýti – šl̄is* ‘to lean, tilt’
- ▶ *slúgti – slùgs* ‘to subside’
- ▶ *srúti – srùs* ‘to stream’
- ▶ *žúti – žùs* ‘to perish, die’

3rd person future forms: irregularity IV

Suggested explanations for such a distribution:

- ▶ Senn (1966: 231ff.), Kazlauskas (1968: 104): the acute long vowels *ý* and *ū* are regularly shortened by Leskien's Law in the word final position, including in monosyllables. Therefore the shortening is regular in those 3p. future forms. Some of them remain with circumflex long vowels due to the expected homonymic clash, e.g., *výs* 'will droop' vs. *vis* (*visti* 'to fall apart'), *siūs* 'will sew' vs. *siùs* (*siústi* 'to rage').
- ▶ Zinkevičius (1984–95: II, 161ff.): MC is regular outcome of the 3p. future forms. Some gained the short vowels through the analogy from their polysyllabic variants, e.g., *bùs* 'will be' from *nebùs* 'will not be' < **nebūs*, in addition to the avoidance of homonymic clash.

3rd person future forms: irregularity V

- ▶ Petit (2002): Leskien's Law did not shorten *ié* and *úo* but *ý* and *ú* in general. Therefore, the shortened future forms are regular for the monosyllabic root in *ý* and *ú*. Some remained with a long circumflex root because of their preterit forms with a long vowel (e.g., *gnýbs* 'will pinch' ← *gnýbo* 'he/they pinched').
- ▶ Villanueva Svensson (2011: 19): MC was probably regular among all the 3p. future forms. For those shortened, the acute root vocalism was restored for some reason.

3rd person future forms: irregularity VI

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Questions:

- ▶ Why some verbs like *gnýbs* – *gnýbtí* ‘pinch,’ *žnýbtí* – *žnýbs* have their future forms with long circumflex vowels, although there are no *gnìbtí* or *žnìbtí*.
- ▶ Why copying the vocalism of preterit forms only to the 3p. future forms? Motivation??
- ▶ If Villanuva Svensson’s opinion is right, what could be the condition of the alleged “restoration of the acute tone” to the future forms?

3rd person future forms: distribution in the present and preterit formation I

The paradigms of the verbs with the shortened 3rd person future forms have:

- ▶ nasal-infix present
- ▶ ā-preterit.

For example (infinitive, present, preterit – 3p. future):

- ▶ *būti*, *yra/būna/būva/ēsti*, *bùvo – bùs* 'to be'
- ▶ *lýti*, *lýja/lýna, lìjo – lìs* 'to rain'
- ▶ *púti*, *pūva/pūna/pūsta/pūsta*, *pùvo – pùs* 'to rot'
- ▶ *srúti*, *srūva/srūna/srūsta*, *srùvo – srùs* 'to stream'
- ▶ *žúti*, *žūva/žūva/žūna/žūsta*, *žùvo – žùs* 'to perish, die'
- ▶ *džiúti*, *džiūva/džiūva/džiūna/džiūsta*, *džiúvo – džiùs* 'to dry, wither'
- ▶ *bliúti*, *bliūva/bliūna*, *briùvo – bliùs* 'to bleat'
- ▶ *kliúti*, *kliūna/kliūva/kliústa*, *kliùvo – kliùs* 'to touch'
- ▶ *griúti*, *griūva/griūna*, *griùvo – griùs* 'to fall down,' etc.

3rd person future forms: distribution in the present and preterit formation II

the verbs which have circumflex tone in their 3p. future forms do not have nasal-infix present.

- ▶ *výti, věja/vìja/výna, vijo – výs* 'to drive, wind'
- ▶ *grústi, grúda, grúdo – grűs* 'to crush'
- ▶ *gnýbti, gnýba, gnýbo – gnýbs* 'to pinch, bite'
- ▶ *žnýbti, žnýbia, žnýbē – žnýbs* 'to pinch, to tweak'
- ▶ *dýgti, dýgsta, dýgo – dýgs* 'to spring, shoot'
- ▶ *klýsti, klýsta, klýdo – klýs* 'to be mistaken'
- ▶ *slýsti, slýsta, slýdo/slido – slýs* 'to slide'
- ▶ *lýsti, lýsta, lýso – lýs* 'to become thin'
- ▶ *lýžti, lýžta, lýžo – lýš* 'to slacken'

3rd person future forms: distribution in the present and preterit formation III

Historical background:

- ▶ Introduction of a root-final semivowel to the nasal infix present: the expected nasal-infix form of the verbs would be *Xlīna-* 'rain' (< *li-n-H-o-), *Xpūna-* 'rot' (< *pu-n-H-o-), etc.

Proportion of Analogy (Gorbachov 2007: 167):

miñga 'sleep(s)' : **mìgā* 'slept' = X 'rain(s)' : **lijā*
'rained'

X = **liñja*.

- ▶ regular nasal loss:

$\forall n > \tilde{V} > \bar{V} / __ \left\{ \begin{array}{cccc} r, & l, & m, & n, \\ j, & v, & & \\ s, & \check{s}, & \check{z} & \end{array} \right\}.$

**liñja* > *lŷja*

3rd person future forms: distribution in the present and preterit formation IV

- ▶ Both nasal infix present and *ā*-preterit are built to the zero-grade of the root, and the verbs which have a nasa-infix present almost always have *ā*-preterit as their preterit paradigm, cf. Stang (1942: 132ff.), Gorbachov (2007: 152ff.). Semantically, they are inchoatives.
 - ▶ for *gýti* 'to recover' (PIE *gʷ^wieh₃- 'to live,' cf. βέομαι 'to become alive,' Skt. jīvati 'lives' LIV 215ff.), present *gʷi-n-h₃-o > PB *gina (→ Lith. gýja), preterit *gʷih₃-ā- > Lith. gijo
 - ▶ for *lýti* 'to rain' (PIE *lejH- 'to pour,' Gk. λείβω 'pour out' OCS lějq (lijati) 'pour' LIV 405ff.), present *li-n-H-o- > PB lina (→ Lith. lýja) preterit *liH-ā- > Lith. lijo

3rd person future forms: distribution in the present and preterit formation V

- ▶ Their infinitives (dative or locative singular of *ti*-stem) kept their old zero-grade formation, e.g., **gʷih₃-tei* > Lith. *gyti*, **liH-tei* > Lith. *lýti*, etc.
Usually, the infinitive roots were remodeled after preterit stem (Stang 1942: 122).
- ▶ In addition, many of the verbs of this type have good IE root etymology, and some of them belong to the **intransitive inchoative thematic verbs** established for Northern Indo-European languages (i.e., Germanic, Baltic and Slavic) in Grobachov (2007: 159ff.).
 - ▶ Lith. *būva* ~ OCS *bqdq* 'will be'
 - ▶ Lith. *pūva* ~ PG **fūni/a-* (cf. ON *fúnar* 'rots')
 - ▶ Lith. *šlýja* ~ PG **hlini/a-* (cf. OE *hlinian*, OHG *hlinēn* 'to lean')

3rd person future forms: distribution in the present and preterit formation VI

The historical background of the future formation: PIE
s-future

Skt. $\sqrt{dā}$ 'to give'

sg. 1.	<i>dāsyámi</i>	du. 1.	<i>dāsyávas</i>	pl. 1.	<i>dāsyámas</i>
2.	<i>dāsyási</i>	2.	<i>dāsyáthas</i>	2.	<i>dāsyátha</i>
3.	<i>dāsyáti</i>	3.	<i>dāsyátas</i>	3.	<i>dāsyánti</i>

Gk. δίδωμι 'to give'

sg. 1.	δώσω	du. 1.	—	pl. 1.	δώσομεν
2.	δώσεις	2.	δώσετον	2.	δώσετε
3.	δώσει	3.	δώσετον	3.	δώσουσι

3rd person future forms: distribution in the present and preterit formation VII

- ▶ The origin of *s*-future may be desiderative formation in $-(h_1)se/o-$, $-(h_1)sie/o-$, and $-(h_1)s-$, the last one of which is continued as Baltic future (Villanueva Svensson 2010: 218ff.).
- ▶ Endzelīns (1971: 234), further advanced in Schmalstieg (1958: 120ff.) and Jasanoff (1978: 103ff.), has proposed that the origin of the *-i*- element in the Baltic future suffix in 1sg./du./pl., 2sg./du./pl. forms is the now disappeared athematic 3pl. ending $*-\eta t(i)$ which developed to PBS $*int(i)$. The implication of this idea is that the 3pl. (weak) form had the accent on the root, i.e., the paradigm was probably in Narten type:
S: R(é)-S(\emptyset)-E(\emptyset), W: R(é)-S(\emptyset)-E(\emptyset).

3rd person future forms: distribution in the present and preterit formation VIII

- ▶ Therefore, the zero-grade vocalism of the shortened 3p. future forms must be secondarily introduced when the Baltic future formation grammar, i.e., building the future stem to the infinitive stem, was introduced in the Baltic language.
- ▶ On the other hand, the full-grade vocalism of some 3rd person future forms must be the inherited vocalism, e.g., *dúoti* – *duōs* ‘will give,’ *déti* – *dēs* ‘will place,’ *stóti* – *stōs* ‘will stand,’ etc., and their full-grade infinitive stem may be rather secondary.

3rd person future forms: distribution in the present and preterit formation IX

Gp 1.	present	preterit	future	infinitive
	nasal infix (zero-grade)	ā-aorist (zero-gr.)	(full-gr. → zero-gr.)	(zero-gr.)
	* <i>lĩŋja</i> 'rain'	* <i>l̄jā</i>	* <i>lẽs</i> → * <i>l̄s</i>	* <i>l̄tei</i>
	* <i>pū̃va</i> 'rot'	* <i>pūvā</i>	* <i>pẽs</i> → * <i>pūs</i>	* <i>pūtei</i>

Gp 2.	—	(full-gr.)	(full-gr.)	(zero-gr. → full-gr.)
	* <i>stāja</i> 'stand'	* <i>stājā</i>	* <i>stās</i>	* <i>statei(?)</i> → * <i>stātei</i>
	* <i>dēda</i> 'place'	* <i>dējā</i>	* <i>dēs</i>	* <i>datei(?)</i> → * <i>dētei</i>
	* <i>lẽja</i> 'pour'	* <i>l̄ejā</i>	* <i>l̄es</i>	* <i>l̄tei</i> → * <i>l̄tei</i>

3rd person future forms: conclusion

- ▶ the condition of the restoration of the acute tone was that the verbs belong to an **inchoative thematic group** with inherited zeso-grade infinitive, nasal-infix present, and ā-preterit. It is not motivated by the avoidance of homonymic clash at Lithuanian stage.
- ▶ This means that the inherited future forms show the result of MC, while the future forms with the secondary vocalism show the shortening. This indicates that MC is an old sound change, which can be estimated no later than Proto-Baltic.
- ▶ Then, how old is MC...?

At least, 3rd person future forms show that it was after "Winter's Law," a lengthening of a vowel before a non-aspirated voiced consonant, e.g., Lith. *bėgs* (< **bégs* < **b^heg^ws*) ~ Lith. *bégti* 'to run,' OCS *běžati*, Gk. φέβομαι 'to flee,' PIE **b^heg^w-*.

Two Latvian reflexes of PIE root nouns I

What's a root noun?

- ▶ a category of nouns which have a structure of a root and an ending, without any suffix (R-E), cf. Schindler (1972: 31ff.).
- ▶ Their possible ablaut patterns were
 - ▶ Acrostatic:
S: R(ó)-E(\emptyset); W: R(é)-E(\emptyset)
 - ▶ Mobile:
S: R(é)-E(\emptyset); W: R(\emptyset)-E(é)
or
S: R(á)-E(\emptyset); W: R(\emptyset)-E(é)

Why root nouns?

- ▶ For a monosyllabic root (which was quite a common case with Indo-European), the nominative singular and possibly accusative singular case forms were monosyllabic with a long vowel.

Two Latvian reflexes of PIE root nouns II

- ▶ In PBS, PIE root nouns shifted to *i*-stems, due to the accusative endings **-m̥* (sg.) and **-m̥s* (pl.) of animate genders developing to **-in* and **-ins*, which were identical to the accusative case endings of *i*-stems (Vaillant 1958: 174ff.; Stang 1966: 219). As a result, they became disyllabic forms.
- ▶ By examining how root nouns obtained their tones, it is possible to establish the relative chronology of MC and the shift of root nouns to *i*-stems in PBS (a more detailed relative chronology)

There are two noteworthy reflexes of PIE root nouns in Latvian with the circumflex tone.

Two Latvian reflexes of PIE root nouns III

- ▶ Latv. *gùovs* 'cow' f.

Cognates:

Skt. nom.sg. *gáus*, acc.sg. *gáṁ*, gen.sg. *gós* 'cow;'

Gk. βοῦς (Dor. βῶς), acc.sg. βοῦν (Dor. βῶν); Lat. *bōs*;

PIE: nom.sg. **gʷ ó̥us* (< **gʷ ó̥s*), acc.sg. **gʷ ó̥m* (<
**gʷ ó̥m*; Stang's Law, cf. Stang 1965: 292ff.)

- ▶ Latv. *sàls* 'salt' m./f.

Cognates:

Baltic: OPruss. *sal* (unknown length / accentuation of the root)

Slavic: OCS *solv* f., SCr. *sô*, *söli*, SIn. *sôł*, *solî*
< PS **solv* (c)

other IE: Gk. ἄλς, ἄλός m. 'salt,' f. 'sea,'
Lat. *sál*, *salis* m./n. 'salt'

PIE: nom.sg. **sáł* (< **sal-s*), acc.sg. **sal-m*

Relative Chronology: for those forms to retain the circumflex tone, the generalization of *i*-stem must be later than MC.

Two Latvian reflexes of PIE root nouns IV

phonological/morphological shifts of the paradigm of 'cow'
from PIE to late PBS

	nom.sg.	acc.sg.	gen.sg.
PIE	* <i>gʷʰous</i>	* <i>gʷʰoum</i> (> * <i>gʷʰōm</i>)	* <i>gʷʰeu-s</i>
	* <i>gʷʰōus</i>	* <i>gʷʰōm</i>	* <i>gʷʰeu-s</i>
PBS	acute assignment to long vowels (also the unification of the strong stem)		
	* <i>gōus</i>	* <i>gōm</i>	* <i>geu-s</i>
	MC		
	* <i>gō̚us</i>	* <i>gō̚m</i>	* <i>geu-s</i>
late PBS	stem-final * <i>v</i> and the ending - <i>im</i> into the accusative stem		
	* <i>gō̚vs</i>	* <i>gō̚vim</i>	* <i>geu-s</i>
	generalization of <i>i</i> -stem		
	* <i>gō̚vi-s</i>	* <i>gō̚vi-m</i>	* <i>gō̚vi-es</i>
	Osthoff's Law: vacuous operation		

Two Latvian reflexes of PIE root nouns V

historical shifts of the paradigm of 'salt'
from PIE to late PBS

nom.sg. acc.sg. obl.

PIE (**sál-s >*) *sá́l* **sál-m̥* (**s̥l-? →*) **sal-*ˊ

PBS acute assignment to long vowels
 and extension of syllabic resonant

**sá́l* **sál-im* **sal-*ˊ

MC

**sá́l* **sálím* **sal-*ˊ

generalization of *i*-stem, keeping the ablaut pattern

**sá́lis* **sálím* **sali-*

Osthoff's law: vacuous operation

**sá́li-s* **sáli-m* **sali-*

Two Latvian reflexes of PIE root nouns VI

Other reflexes of root nouns have the acute tone in the root:
e.g., Lith. žvér̄is 'wild animal'

Cognates:

Baltic: Latv. zvērs m. < PB *žvēris

Slavic: OCSzvěrъ, SCr. zvíjer, Sln. zvěr < PS *zvěrъ m.
(c)

PBS *žvēris ← *žvēr < PIE *ǵʰuēr

other IE: Gk. θήρ, θηρός m., Lat. fera f. 'wild beast'

PIE: nom.sg. *ǵʰuér-s (> *ǵʰuér), gen.sg. *ǵʰuṛ-és

Two Latvian reflexes of PIE root nouns VII

Historical
phonology in
Lithuanian and
Balto-Slavic:
relative chronology
of *Monosyllabic
Circumflexion*
Yoko Yamazaki

phonological/morphological shifts of the paradigm
of 'wild animal' from PIE to late PBS

	nom.sg.	acc.sg.	obl.
PIE	* \hat{g}^h yer-s (> * \hat{g}^h yēr)	* \hat{g}^h yer- \bar{m}	* \hat{g}^h yēr-'
PBS	loss of ablaut and palatalization of * \hat{g}^h		

acute assignment to long vowels
and extension of syllabic resonant

*zvēr *zvēr-im zvēr-'

MC

*zvēr̩ *zvēr-im zvēr-'

generalization of accusative stem in *i*-stem

*zvēri-s *zvēri-m *zvēri-'

Osthoff's Law: vacuous operation

Conclusions

Historical
phonology in
Lithuanian and
Balto-Slavic:
relative chronology
of *Monosyllabic*
Circumflexion
Yoko Yamazaki

- ▶ The analysis of the 3p. future forms of monosyllabic acute stems indicates that the replacement of the future stems with the infinitive stem in the zero-grade took place no later than Proto-Baltic.
- ▶ The analysis of the root nouns provides an indirect piece of evidence for MC taoking place in PB.
- ▶ The relative Chronology:
Winter's Law (\rightarrow acute assignment) \rightarrow MC \rightarrow generalization of *i*-stem \rightarrow Osthoff's Law

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