

Monosyllabic Circumflexion of the Lithuanian 3rd person future forms: its distribution and origin

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Monosyllabic Circumflexion I

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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), Kortlandt (2002, 2014), Villanueva Svensson (2011), etc.

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Monosyllabic Circumflexion II

- ▶ the 3rd person future forms of monosyllabic acute root

duõs ~ *dúoti* 'give' (← **deh*₃₋, Gk. δίδωμι);
děs ~ *déti* 'put' (← **d^heh*₁₋, Skt. *dadhāti*)

- ▶ pronominal forms

- ▶ *tiě* '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. *śvā*, Gk. κύων; *žmuõ* 'man' cf. Lat. *hemo*

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

- ▶ adverbs/prepositions/particles

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

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>duõs</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>bùs</i> (< * <i>būs</i>)	—	—	—	—

future paradigm of Latv. *duôt* 'give'

sg. 1.	<i>duõšu</i>	pl. 1.	<i>duõsim</i>
2.	<i>duõsi</i>	2.	<i>duõsit</i>
3.	<i>duõs</i>	—	—

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3rd person future forms: irregularity II

Distribution of MC and shortening:

- ▶ MC (infinitive – 3p. future):
 - ▶ *šókti* – *šõks* ‘to dance’
 - ▶ *déti* – *dēs* ‘to place’
 - ▶ *dúoti* – *duõs* ‘to give’
 - ▶ *trúkti* – *trũks* ‘to lack’
 - ▶ *grústi* – *grũs* ‘to crush’
 - ▶ *gnýbti* – *gnỹbs* ‘to pinch, bite’
 - ▶ *žnýbti* – *žnỹbs* ‘to pinch, to tweak’
 - ▶ *klýsti* – *klỹs* ‘to be mistaken’
 - ▶ *slýsti* – *slỹs* ‘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* – *gìs* ‘to get better’
- ▶ *kliūti* – *kliùs* ‘to touch’
- ▶ *lýti* – *lìs* ‘to rain’
- ▶ *rýti* – *rìs* ‘to swallow’
- ▶ *rúgti* – *rùgs* ‘to grow/turn sour’
- ▶ *sýti* – *sìs* ‘to link to’
- ▶ *šlýti* – *šlìs* ‘to lean, tilt’
- ▶ *slūgti* – *slùgs* ‘to subside’
- ▶ *srúti* – *srùs* ‘to stream’
- ▶ *žúti* – *žùs* ‘to perish, die’

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3rd person future forms: irregularity IV

Suggested explanations for such a distribution:

- ▶ Senn (1966: 231ff.), Kazlauskas (1968: 104): the acute long vowels *ý* and *ṹ* 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., *vỹs* 'will droop' vs. *vis* (*vìsti* 'to fall apart'), *siũs* 'will sew' vs. *siùs* (*siùsti* 'to rage').
- ▶ Zinkevičius (1984–95: II, 161ff.): MC is the regular outcome of the 3p. future forms. Some gained the short vowels through **polysyllabic variants**, e.g., *bùs* 'will be' from *nebùs* 'will not be' < **nebũs*.

3rd person future forms: irregularity V

- ▶ Petit (2002): Leskien's Law did not shorten *íe* and *úo* but *ý* and *ǔ* in general. Therefore, the shortened future forms are regular for the monosyllabic root in *ý* and *ǔ*. Some remained with a long circumflex root because of their **preterit forms with a long vowel** (e.g., *gnỹbs* '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

Questions:

- ▶ Why some verbs like *gnỹbs* – *gnýbti* ‘pinch,’ *žnỹbs* – *žnýbti* ‘tweak’ have their future forms with long circumflex vowels, although there are no *gnìbti* or *žnìbti*.
- ▶ Why copying the vocalism of preterit forms only to the 3p. future forms? Motivation??
- ▶ If Villanueva Svensson’s opinion is right, what could be the condition of the alleged “restoration of the acute tone” to the future forms?

Distribution of the shortened forms I

Yamazaki (2014) showed that 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/ėsti*, *bùvo – bùs* ‘to be’
- ▶ *lyti*, *lỹja/lỹna*, *lìjo – lìs* ‘to rain’
- ▶ *pūti*, *pūva/pūna/pūsta/pūsta*, *pùvo – pùs* ‘to rot’
- ▶ *srūti*, *srūva/srūna/srūsta*, *srùvo – srùs* ‘to stream’
- ▶ *žūti*, *žūva/žūva/žūna/žūsta*, *žùvo – žùs* ‘to perish, die’
- ▶ *džiūti*, *džiūva/džiūva/džiūna/džiūsta*, *džiūvo – džiūs* ‘to dry, wither’
- ▶ *bliūti*, *bliūva/bliūna*, *briūvo – bliūs* ‘to bleat’
- ▶ *kliūti*, *kliūna/kliūva/kliūsta*, *kliūvo – kliūs* ‘to touch’
- ▶ *griūti*, *griūva/griūna*, *griūvo – griūs* ‘to fall down,’ etc.

Distribution of the shortened forms II

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

- ▶ *výti, vėja/vija/výna, vijo – vỹs* ‘to drive, wind’
- ▶ *grústi, grúda, grúdo – grūs* ‘to crush’
- ▶ *gnýbti, gnýba, gnýbo – gnỹbs* ‘to pinch, bite’
- ▶ *žnýbti, žnýbia, žnýbė – žnỹbs* ‘to pinch, to tweak’
- ▶ *dýgti, dýgsta, dýgo – dỹgs* ‘to spring, shoot’
- ▶ *klýsti, klýsta, klýdo – klỹs* ‘to be mistaken’
- ▶ *slýsti, slýsta, slýdo/slido – slỹs* ‘to slide’
- ▶ *lýsti, lýsta, lýso – lýs* ‘to become thin’
- ▶ *lýžti, lýžta, lýžo – lýš* ‘to slacken’

Historical background: nasal infix presents I

- ▶ Both nasal infix present and \bar{a} -preterit are built on the zero-grade of the root, and the verbs which have a nasa-infix present almost always have \bar{a} -preterit as their preterit paradigm, cf. Stang (1942: 132ff.), Gorbachov (2007: 152ff.). Semantically, they are inchoatives.
 - ▶ for *gýti* 'to recover' (PIE $*g^w\hat{i}eh_3-$ 'to live,' cf. βέομαι 'to become alive,' Skt. *jívatī* 'lives' LIV 215ff.), present $*g^w i-n-h_3-o-$ > PB $*gina$ (→ Lith. *gỹja*), preterit $*g^w ih_3-\bar{a}-$ > Lith. *gìjo*
 - ▶ for *lýti* 'to rain' (PIE $*leiH-$ 'to pour,' Gk. λείβω 'pour out' OCS *lějǫ* (*lijati*) 'pour' LIV 405ff.), present $*li-n-H-o-$ > PB $*lina$ (→ Lith. *lỹja*) preterit $*liH-\bar{a}-$ > Lith. *lìjo*

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Historical background: nasal infix presents II

- ▶ Introduction of a root-final semivowel to the nasal infix present: the expected nasal-infix form of the verbs would be *Xlina-* 'rain' (< **li-n-H-o-*), *Xpùna-* '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:

$$Vn > \tilde{V} > \bar{V} / \left. \begin{array}{ccc} r, & l, & m, & n, \\ j, & v, & & \\ s, & š, & ž & \end{array} \right\}$$

**liñja* > *lỹja*

Historical background: nasal infix presents III

- ▶ Their infinitives (dative or locative sg. of *ti*-stem) kept their old zero-grade formation, e.g., **g^wih₃-tei* > Lith. *gýti*, **liH-tei* > Lith. *lýti*, etc.
- ▶ 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. *pūva* ~ PG **fūni/a-* (cf. ON *fúnar* 'rots')
 - ▶ Lith. *šlỹja* ~ PG **hlini/a-* (cf. OE *hlinian*, OHG *hlinēn* 'to lean')
- ▶ The Lithuanian verbs whose 3p. future forms are shortened are likely to have developed from this morpho-semantic group, i.e., the **intransitive inchoative thematic verbs**.

The historical background of the future formation: PIE *s*-future/desiderative I

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Skt. $\sqrt{dā}$ 'to give'

sg. 1.	<i>dāsyāmi</i>	du. 1.	<i>dāsyāvas</i>	pl. 1.	<i>dāsyāmas</i>
2.	<i>dāsyāsi</i>	2.	<i>dāsyāthas</i>	2.	<i>dāsyātha</i>
3.	<i>dāsyāti</i>	3.	<i>dāsyātas</i>	3.	<i>dāsyānti</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

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The historical background of the future formation: PIE *s*-future/desiderative II

- ▶ The origin of *s*-future may be desiderative formation in $-(h_1)se/o-$, $-(h_1)s_āie/o-$, and $-(h_1)s-$, the last one of which is continued as Baltic future (Jasanoff 2003: 132ff.; Villanueva Svensson 2010: 218ff.).
- ▶ Endzelīns (1928: 107; 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 $*-nt(i)$ which developed into PBS $*-int(i)$. Its implication is that the 3pl. (weak) form had the accent on the root, i.e., the paradigm was in Narten type:
S: R(\acute{e})-S(\emptyset)-E(\emptyset), W: R(\acute{e})-S(\emptyset)-E(\emptyset).

The historical background of the future formation: PIE *s*-future/desiderative III

- ▶ The future forms of **intransitive inchoative thematic verbs** (e.g., *līs* < **líst(i)*) are not in **R(é)-S(∅)-E(∅)**. Instead, they are in 'R(∅)-S(∅)-E(∅)'. This must be secondarily formed based on the Baltic future formation grammar, i.e., forming the future stem based on the infinitive stem. Their original formation before the restructuring possibly mirrored their present formation, i.e., **thematic formation**, cf. Jasanoff (2003: 135).
- ▶ On the other hand, there was no need for the verbs that inherited the full-grade vocalism both in the infinitive (cf. Vine 2004) and future stems to reform their future stems, e.g., *dúoti* – *duõs* 'will give,' *déti* – *děs* 'will place,' *stóti* – *stõs* 'will stand,' etc.
- ▶ *i*-apocope must precede MC:
PBS **dōsti* > **dōst* > **dōst* (> Lith. *duõs*)

The historical background of the future formation: PIE *s*-future/desiderative IV

present	preterit	future	infinitive
nasal infix (zero-grade)	\bar{a} -aorist (zero-gr.)	(unclear → zero-gr.)	(zero-gr.)
* <i>liñja</i> 'rain'	* <i>lijāt</i>	* <i>līsat(i)??</i> → * <i>līs</i>	* <i>lītěi</i>
* <i>puñva</i> 'rot'	* <i>pūvāt</i>	* <i>pūsāt(i)??</i> → * <i>pūs</i>	* <i>pūtěi</i>
—	(full-gr.)	(full-gr.)	(zero-gr. → full-gr.)
* <i>dōsti</i> 'give'	* <i>dovēt</i>	* <i>dōst</i>	* <i>dōtěi</i>
* <i>desti</i> 'place'	* <i>dējā</i>	* <i>dēst</i>	* <i>dētěi</i>

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- ▶ 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 \bar{a} -preterit. It is not motivated by the avoidance of homonymic clash at Lithuanian stage.
- ▶ This means that circumflex tone through MC is the phonological outcome for the 3rd p. fut. forms of monosyllabic acute stem, while the shortened 3rd. p. fut. forms reflect the acute roots that were copied from their infinitive stems when Baltic future formation rule was established. This indicates that MC is an old sound change, which can be estimated no later than Proto-Baltic.

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