

The 3rd person thematic ending in Baltic

Yoko Yamazaki



30 November 2022

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Why the thematic ending(s)...?

- ▶ My current project “The traveling voices”: investigating the prehistorical developments of the voice systems....
- ▶ Some anomalies of the thematic endings of the East Baltic languages have been sometimes associated with the prehistorical relationship between thematic conjugation and the mediopassive inflection.
- ▶ Direct or indirect connections of medio-passive inflection and the thematic inflection have been mentioned, e.g., Watkins 1969, Jasanoff 1998, and sometimes Baltic data are adduced.
- ▶ Maybe the 1sg ending PB $*-\bar{o}$ ($< *-\bar{o}h_2 \sim \text{mid. } *-h_2e(r)$) could be, but could that also be the case with the 3sg./pl. ending PB $*-a-\emptyset$??

3sg. / du. / pl. ending in Baltic I

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

- ▶ The number distinction was lost in the 3rd person.
 - ▶ The historical singular ending is generalized for all the numbers.
 - ▶ Due to the Finnic influence? cf. Thomason & Kaufman 1998: 243.
- ▶ Simple thematic ending: PB *-a-∅ > OPru. *imma(ts)*, Lith. *ìma*, Latv. *ņem* ‘take(s)’. ~ PIE *-e-ti. (cf. OCS *beretъ*, Goth. *bairip* ‘bears’)
- ▶ Athematic ending: PB *-ti > OPru. *ast*, *astits* ‘is/are’, OLith. *est(i)* ‘is/are’, Latv. *iêt* ‘go(es)’. going back to PIE *-ti.
 - ▶ It was used also for preterit stem: OLith. *biti* ‘was’ (→ ModLith. *bùvo* [*ā*-preterit])
 - ▶ In Baltic, it appears that the tense started to be marked solely by the stem formations.

3sg. / du. / pl. ending in Baltic II

- ▶ The thematic vowel was replaced with *-a- (< *-o-), probably due to the analogical influence of the 1pl. *-am- (< *-o-m-), 1du. *-a-uā (< *-o-ue/o-) or the lost 3pl. *-ant(i) (< *-onti) (Vaillant 1966: 10, Olander 2015: 327), or due to a Baltic sound change *ie- > *ia- in the paradigm of *ia*-presents (Jasanoff 1978: 48).
- ▶ Zero-ending in the 3rd person also for other vocalic stems, including other tense stems (cf. Stang 1966: 410):
 - ▶ Lith. *sāko* 'say(s)' Latv. *dara* 'do(es)' [*ā*-stem],
 - ▶ OPru. *turri*, Lith. *tùri*, Latv. *tur* 'has / have' [*i*-present]
 - ▶ OPru. *billāts* 'spoke', Lith. *lìko*, Latv. *līka* 'remained' [*ā*-preterit],
 - ▶ OPru. *weddē*, Lith. *vėdė*, OLatv. *vede* 'led' [*ē*-preterit]
 - ▶ Lith. *bùs*, Latv. *būs* 'will be' [*s*-future, athematic]

Previous studies I

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

- ▶ We usually start from the PIE 3sg. **-e-ti* (or sometimes the secondary ending (dedicated to the non-present tense) **-e-t*).
- ▶ How has it developed to PB **-a-∅*

Previous proposals:

- ▶ Stang 1942: 218ff., 230; 1966: 410, Olander 2015: 327

Starting from the secondary ending for the thematic stems: **-e-t* >
**-e-∅* [loss of final stop]

Previous studies II

- ▶ Watkins 1969: 213–214, 218–219, Kortlandt 1979, Sihler 1995: 461–463

Endingless 3sg. **-e / *-ei* (with *hic et nunc *-i*) in PIE? cf. Gk. *-ει* (e.g., φέρει).

However, Gk. *-ει* could be accounted for in different ways, starting from the regular **-e-ti*, e.g., by “the interplay between primary and secondary forms of the 2nd and 3rd persons: (...) ἔφερεις : φέρεις = ἔφερε : *X*, where *X* = φέρει” (Brugmann 1878: 173–179, Sihler 1995: 461); by metathesis (**-e-ti* > **-eit* > *-ει*; Kiparsky 1967, Cowgill 2006).

- ▶ On the Slavic data
 - ▶ Hock 2007
 - ▶ *i-apocope* in the word-final positions and *utterance-finality* in an SOV language
 - ▶ Adjustment to Open Syllable Conspiracy in Slavic

Previous studies III

- ▶ (...) final *-i* was especially vulnerable to loss in early Indo-European languages (...) (p. 73)

- ▶ Olander 2015: 324ff.

PIE **-e-ti* > PS **-e-tŕ* > **-e-t*

→ { OCS *-etb* [depalatalization of **-tʰ*]
OCS *-etb*, ORu. *-etb*
ORu. dial. / ONov. / OCS *-e-∅*

**-tʰ* was still there in Proto-Slavic, and had to be treated in various ways due to the law of open syllables.

- ▶ Villanueva Svensson 2017/2018: 286

Operates with the combination of *i*-apocope in the unstressed position and the loss of the final **-t*;

Relative chronology: loss of final stops → *i*-apocope, i.e., PBS **-e-ti* > **-e-t*

Previous studies IV

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Then, the final **-t* was not lost either in Proto-Baltic...? What dropped the final **-t*?

Suggestions I

- ▶ Note:

While the 3sg. ending was restored to *-tb* or to *-t̃b* in many Slavic dialects, in the Baltic thematic conjugation, it was lost in all the dialects. What caused this difference?

- ▶ Suggestion for 3 sg./pl. ending: Finnic influence

- ▶ The loss of number distinction in the 3rd person in Baltic is often said to be due to the Finnic influence, cf. Thomason & Kaufman 1998: 243.
- ▶ zero-ending in 3rd person:
 - ▶ Historically speaking, the personal endings occur only in 1st and 2nd persons in Finnic languages (Collinder 1965: 58).
 - ▶ Coastal Finnic 3sg. pres. **-pi*
Inland Finnic 3sg. pres. **-∅* (Kallio 2014: 156)
(**-pi* was a Coastal Finnic innovation and originally a present tense marker; Hakulinen 1961: 168)
- ▶ Was the drop of **-t* or no attempt to restore the ending in 3sg. in Baltic an acceptance of zero-ending under the influence of Finno-Ugric languages?

Some linguistic and extra-linguistic supports I

Some linguistic support:

- ▶ Numerous (ca. 200?) Baltic loanwords in Proto-Finnic (Thomsen 1890, Kallio 2008, Junttila 2017)
 - ▶ kinship terms
 - ▶ agriculture
 - ▶ animal husbandry
 - ▶ mythological creatures
 - ▶ game and hunting
 - ▶ fishing equipment and fish
 - ▶
- ▶ Max. 32 Baltic loanwords in Saami (Aikio 2017: 107ff.)
- ▶ Over 30 Baltic loanwords in Mordvin (Grünthal 2017: 297ff.)

Some linguistic and extra-linguistic supports II

- ▶ Remarkably fewer Proto-Finnic loanwords in Proto-Baltic (cf. Junttila 2015)
— EDIT (2022-12-05)—
- ▶ Fino-Ugric influence in the Baltic grammar (Zinkevičius 1984–1995: I, 180, Balode & Holvoet 2001: 44):
 - ▶ secondary local cases (illative, adessive, allative) with postpositions
 - ▶ development of the “relative mode” (evidentiality-related construction) using participles
- End of EDIT —
- ▶ The time depth of Proto-Baltic is said to be ca. 2000–1000BCE (Toporov & Trubačev 1962 quoted by Nichols 2021: 355).

Some possible supplementary supports from archaeology and aDNA analysis:

- ▶ Archaeological background:

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Some linguistic and extra-linguistic supports III

- ▶ Lyalovo Culture (Pitted Ware, Upper Volga, c. 5000–3650 BCE; **Proto-Uralic speaking?**) → Volosovo Culture (Volga-Oka region, 3650–1900 BCE) (Carpelan & Parpola 2001: 79ff. Anthony 2007: 93, Parpola 2017: 148)
- ▶ Massive migration from Pontic Caspian steppe (**core-PIE speaking** population; 3000BCE–) → **pre-Baltic speaking** population in the westernmost Fatyanovo range (forest-steppe and forest zones of the Dnieper basin) in 2800–1800BCE (Anthony 2007: 380, Nichols 2021: 355)
- ▶ Volosovo Culture was affected by Fatyanovo Culture in ca. 2800 / 2600 BCE;
Volosovo and Balanovo (eastern extension of Fatyanovo C) Cultures fusing in a new culture, i.e., Netted Ware Cultures, from about 2200BCE → **Finno-Ugric – Baltic contact?** (Carpelan & Parpola 2001: 83, Parpola 2017: 146, 150ff.).

Some linguistic and extra-linguistic supports IV



Figure 15.5 Culture groups of the Middle Bronze Age, 2800–2200 BCE.

Anthony 2007: 379

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Some linguistic and extra-linguistic supports V

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

- ▶ 4.2 ka event (a climate episode 4200–3900BP) caused migrations:
 - ▶ Abashevo culture → Sintashta culture (Nichols 2021: 355ff.)
 - ▶ Seima-Turbino trans-cultural complex (1900-1600BCE);
“The northwards spread of the Netted Ware coincided with the operation of the Se[i]ma-Turbino intercultural trader network” (Parpola 2017: 156)
→ related to the expansion of the Uralic languages??
- ▶ “East of the Oka, the previous Fatyanovo-Balanovo culture and its offshoots were replaced by evidently Uralic-speaking cultures (...) [after 3900BP]” (Nichols 2021: 357)

Some linguistic and extra-linguistic supports VI

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

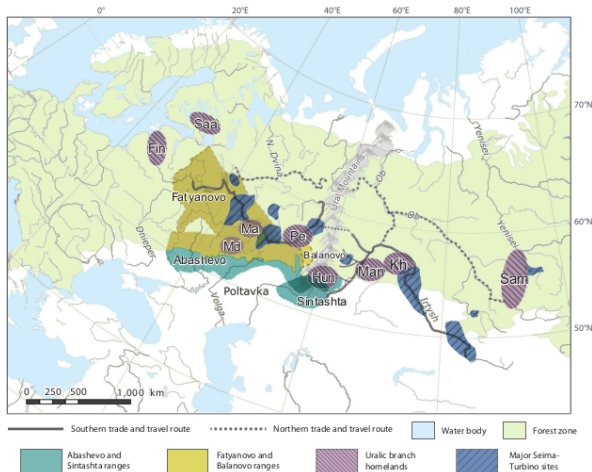


Figure 1

Linguistic and archaeological distributions c. 4200-4000 BP. The light green band across the entire area indicates the recent and

Nichols 2021: 356

Some linguistic and extra-linguistic supports VII

- ▶ If Seima-Turbino phenomenon has been related to the spread of the Finno-Ugric speaking people into and around the Fatyanovo area, the contact between Proto-Baltic and Finno-Ugric started ca. 1900BCE...?
- ▶ What aDNA analysis suggests?
 - ▶ [Mittnik et al. 2018](#)
 - ▶ The transition between Late Neolithic to early Bronze Age in the East Baltic region [Narva Culture]:

Combed Ceramic Culture
(EHG + northern EHG)

↓

Corded Ware Culture
(gene flow of the pastoralists from Pontic Caspian steppe)
around 3000BCE
 - ▶ Additional gene flow from outside the Baltic territory in Bronze Age: further admixture with various agricultural populations of Europe and Near East (p. 7)

Some linguistic and extra-linguistic supports VIII

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

- ▶ Another gene-flow into the Eastern Baltic after Bronze Age:
 - The Siberian and East Asian related ancestry **Y-haplogroup N** is relatively frequent in modern north-eastern Europe, but absent in the region in Bronze Age
 - Y-haplogroup N was introduced in the region after Bronze Age, ca. 500BCE.
 - The introduction of Y-haploogroup N may be connected to the spread of Uralic speakers (p. 8).
- ▶ However, the archaeological analyses suggest that Uralic and Baltic speakers contacted earlier than 500BCE...??
- ▶ “Additional gene flow from outside the Baltic territory (admixture with various agricultural populations of Europe and Near East)” might be rather connected...??

Conclusions

- ▶ The Baltic zero-ending in the 3rd person (singular) of the thematic conjugation may involve language contact with Proto-Finno-Ugric, which is known to have had zero-ending in the 3rd person.
- ▶ Archaeological evidence and analyses suggest that some Finno-Ugric populations spread among / around also the western portion of the Fatyanovo range through Seima-Turbino trading networks ca. 1900BCE. Through the contact with them, pre-Baltic possibly acquired several Finno-Ugricisms in their dialects, including the zero-ending in the 3rd person thematic forms (?).
- ▶ The aDNA analysis presents the fundamental fact that genes do not tell much about the mother tongue of their bearers, but only suggest the migration of populations.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic





A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography I

-  Aikio, Ante (2017). “An essay on Saami ethnolinguistic prehistory”. In: *A linguistic map of prehistoric Northern Europe*. Ed. by Riho Grünthal & Petri Kallio. 2nd ed. Helsinki: Société Finno-Ougrienne, 63–117.
-  Anthony, David W. (2007). *The Horse, The Wheel, and Language. How Bronze-Age Riders From the Eurasian Steppes Shaped the Modern World*. Princeton, NJ: Princeton University Press.
-  Balode, L. & Axel Holvoet (2001). “The Lithuanian language and its dialects”. In: *Circum-Baltic Languages*. Ed. by Östen Dahl & Maria Koptjevskaja-Tamm. Vol. 1. Amsterdam / Philadelphia: John Benjamins, 41–79.
-  Brugmann, Karl (1878). “Zur geschichte der personalendungen”. In: *Morphologische Untersuchungen auf dem Gebiete der indogermanischen Sprachen*. Vol. 1. Leipzig: Hirzel, 133–186.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography II

-  Carpelan, Christian & Asko Parpola (2001). “Emergence, contacts and dispersal of Proto-Indo-European, Proto-Uralic and Proto-Aryan in archaeological perspective”. In: *Early Contacts between Uralic and Indo-European. Linguistic and Archaeological Considerations*. Ed. by Christian Carpelan, Asko Parpola & Petteri Koskikallio. Suomalais-Ugrilaisen Seuran Toimituksia 242, 55–150.
-  Collinder, Björn (1965). *An introduction to the Uralic languages*. Berkely and Los Angeles: University of California Press.
-  Cowgill, Warren (2006). “The personal endings of thematic verbs in Indo-European”. In: *The Collected Writings of Warren Cowgill*. Ed. by Jared S. Klein. Ann Arbor & New York: Beech Stave, 535–567.
-  Grünthal, Riho (2017). “Baltic loanwords in Mordvin”. In: *A linguistic map of prehistoric Northern Europe*. Ed. by Riho Grünthal & Petri Kallio. 2nd ed. Helsinki: Société Finno-Ougrienne, 297–343.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic





A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography III

-  Hakulinen, Lauri (1961). *The structure and development of the Finnish language*. The Hague: Mouton.
-  Hock, Hans H (2007). “Morphology and *i*-apocope in Slavic and Baltic.”. In: *Proceedings of the eighteenth annual Indo-European conference, Los Angeles, November 3–4, 2006 (selected papers)*. Ed. by Karlene Jones-Bley, Martin E. Huld, Angela Della Volpe & Miriam Robbins Dexter. Washington, D. C.: Institute for the Study of Man, 65–76.
-  Jasanoff, Jay (1978). *Stative and middle in Indo-European*. Innsbruck: Institut für Sprachwissenschaft.
-  Jasanoff, Jay (1998). “The thematic conjugation revisited”. In: *Mír Curad. Studies in honor of Calvert Watkins*. Ed. by Jay H. Jasanoff, H. Craig Melchert & Lisi Oliver. Innsbruck: Institut für Sprachwissenschaft, 301–316.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography IV

-  Junttila, Santeri (2015). “Proto-Finnic loanwords in the Baltic languages? An old hypothesis revisited”. In: *Contacts between the Baltic and Finnic languages*. Ed. by Santeri Junttila. Helsinki: University of Helsinki Finno-Ugric Language Section and Finno-Ugrian Society, 12–37.
-  Junttila, Santeri (2017). “The prehistoric context of the oldest contacts between Baltic and Finnic languages”. In: *A linguistic map of prehistoric Northern Europe*. Ed. by Riho Grünthal & Petri Kallio. 2nd ed. Helsinki: Société Finno-Ougrienne, 261–296.
-  Kallio, Petri (2008). “On the “early Baltic” loanwords in Common Finnic”. In: *Studies in Slavic and General Linguistics* 32, 265–277.
-  Kallio, Petri (2014). “The Diversification of Proto-Finnic”. In: *Fibula, Fabula, Fact. The Viking Age in Finland*. Ed. by Joonas Ahola, Frog & Clive Tolley. Helsinki: The Finnish Literature Society, 155–168. DOI: <http://dx.doi.org/10.21435/sfh.18>.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic






A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography V

-  Kiparsky, Paul (1967). “A Phonological Rule of Greek”. In: *Glotta* 44, 109–134.
-  Kortlandt, Frederik (1979). “Toward a reconstruction of the Balto-Slavic verbal system”. In: *Lingua* 49, 51–70.
-  Mittnik, Alissa et al. (2018). “The genetic prehistory of the Baltic Sea region”. In: *Nature Communications* 2018.9, 442. DOI: <https://doi.org/10.1038/s41467-018-02825-9>.
-  Nichols, Johanna (2021). “The Origin and Dispersal of Uralic: Distributional Typological View”. In: *Annual Review of Linguistics* 2021.7, 351–369.
-  Olander, Thomas (2015). *Proto-Slavic inflectional morphology*. Leiden/Boston: Brill.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic


A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography VI

-  Parpola, Asko (2017). “Formation of the Indo-European and Uralic (Finno-Ugric) language families in the light of archaeology”. In: *A linguistic map of prehistoric Northern Europe*. Ed. by Riho Grünthal & Petri Kallio. 2nd ed. Helsinki: Société Finno-Ougrienne, 119–184.
-  Sihler, Andrew L (1995). *New comparative grammar of Greek and Latin*. New York / Oxford: Oxford University Press.
-  Stang, Christian S (1942). *Das slavische und baltische Verbum*. Oslo: Jakob Dybwad.
-  Stang, Christian S (1966). *Vergleichende Grammatik der baltischen Sprachen*. Oslo: Universitetsforlaget.
-  Thomason, Sarah Grey & Terrence Kaufman (1998). *Language contact, creolization and genetic linguistics*. Berkley, Los Angeles, and Oxford: University of California Press.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic






A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography VII

-  Thomsen, Vilhelm (1890). *Beröringer mellem de finske og de baltiske (litauisk-lettiske) Sprog. En sproghistorisk Undersøgelse*. Copenhagen: Blanco Lunos.
-  Toporov, Vladimir N. & Oleg N. Trubačev (1962). *Lingvističeskij analiz gidronimov Verxnego Podneprov'ja*. Moskva: Izdatel'stvo Akademii nauk SSSR.
-  Vaillant, André (1966). *Grammaire comparée des langues slaves*. Vol. 3. *Le verbe*. Paris: Klincksieck.
-  Villanueva Svensson, Miguel (2017/2018). "The conditioning of the Balto-Slavic *i*-apocope". In: *Münchener Studien zur Sprachwissenschaft* 71.2.
-  Watkins, Calvert (1969). *Geschichte der indogermanischen Verbalflexion*. Vol. 1. Indogermanische Grammatik III. Heidelberg: Carl Winter.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Bibliography VIII



Zinkevičius, Zigmās (1984–1995). *Lietuvių kalbos istorija*. Vol. I–VII. Vilnius: Mokslas.

The 3rd person
thematic ending in
Baltic

Yoko Yamazaki

Background

3sg. / du. /
pl. thematic ending
in Baltic

A survey of the
previous proposals
on the topic

Language contact
examined in
various disciplines

Conclusions

References

Thank you for your attention.