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NIEMINEN'S LAW REVISITED

Abstract. Nieminen's law was a matter of vowel reduction: in Proto-Baltic word-final *-as was reduced to *-əs and lost its capacity to carry the stress. This accounts for the following facts: 1) accent position in the nominative singular of mobile o-stems (Lith. *lāngas*, OPr. *Deywis/Deiws*); 2) the *īo*-stem nominative singular *-īs < *-īəs (Lith. *ožys*, OPr. *braydis*); 3) the Old Lithuanian dative plural -mus < *-mās; 4) accent position in the dative plural of mobile nouns (OLith. *langāmus*, OPr. *waikammans*).

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1. In¹ 1922 Eino Nieminen presented the sound law that now bears his name (Nieminen 1922, 151–155): the stress was retracted from pre-Lithuanian word-final *-ās to the preceding syllable. This accounts for the accentuation of Lith. o-stem nom. sg. *lāngas* 'window', *bāltas* 'white' (AP 3), *vařnas* 'raven', *leņgvas* 'easy' (AP 4), from Bl.(-Sl.) **langās*, **baltās*, **uarnās*, **lenguās*.² Till very recently this was the only form in which Nieminen's law was agreed to have applied with certainty.

A sound law invented to account for just one ending is almost per force going to be controversial, but not in this case. From a theoretical point of view, the fact that the Lithuanian nominative singular of mobile nouns is otherwise always accented on the ending (*galvā* 'head', *varškė* 'curd', *žvėris* 'beast',

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² I use the following conventions for Balto-Slavic and Baltic prosodic features: \bar{E} = acute, \bar{E} = non-acute, \acute{E} = stress in lexically accented word forms, \grave{E} = initial syllable of unaccented word forms (*enclinomena*). I keep the traditional notation for Proto-Slavic.

sūnūs ‘son’, *vanduō* ‘water’, all AP 3) allows us to expect ending accentuation for the *o*-stems as well (**langás* etc.). This is of course not conclusive, but the hypothetical **langás* is made practically certain by the ending accentuation of the definite adjective (Lith. nom. sg. *baltāsis* ‘white’ < **baltás-(i)is*)³ and of the *iō*-stem nouns (Lith. nom. sg. *ožỹs* ‘goat’ AP 3 < **āzījās*), neither of which can be easily explained as an innovation. There is no counterevidence.

2. The internal evidence for Nieminen’s law is thus exceptionally strong and no doubt the reason why it has been generally accepted.⁴ At the same time, it will be predictably hard to specify the nature and chronology of a sound law that affected just one ending. We can review here what is known and is not known about Nieminen’s law after almost a century of scholarship.

Nieminen’s law did not affect long vowels and diphthongs (cf. nom. sg. *galv-à* < Bl.-Sl. **-ā*, *vand-uō* < **-ō*, gen. sg. *sūn-aūs* < **-āus*, etc.) nor, interestingly, the other short vowels (cf. nom. sg. *ugn-is* < **-is*, *sūn-ūs* < **-ūs*, dial. consonant-stem gen. sg. *dukter-ès* < **-és*). Stang (1957, 158; 1966a, 171) proposed that Nieminen’s law only took place after heavy syllables, but this is not backed by unambiguous evidence and requires too much analogy to be credible.⁵ The main question concerning the *range* of Nieminen’s law is whether it affected all instances of **a* in word-final syllables (i.e., **-a*, **-an*) or only **-as*. Lith. pres. act. ptcp. nom. sg. masc. *vedq̃s* < **uēdān(t)s* (< PIE **-onts*, *vel sim.*) and pl. *vedq̃* < Bl. **uēdān(t)* (from Bl.-Sl. 3 pl. pres. **uēdanti*, cf. Majer 2017) seem to indicate that not all instances of word-

³ As an anonymous reviewer points out, **baltás-(i)is* should have given *†baltāsis*, with long vowel. This is true, but the lengthening of pre-Lithuanian non-final **a*, **e* in stressed position has a large number of well-known exceptions (*nè-neša* ‘does not carry’, *te-bè-neša* ‘still carries’, inf. *něšti* ‘carry’, fut. *něšiu* ‘I will carry’, comp. *gerėsnis* ‘better’, etc.). Whatever the ultimate explanation of these exceptions might be, the short *a* of *baltāsis* does not by itself compromise its derivation from **baltás-(i)is*.

⁴ E.g. Stang (1957, 158; 1966a, 171), Illič-Svityč (1963, 41f.), Kazlauskas (1968a, 34), Kortlandt (1977, 325), Collinge (1985, 119f.), Shintani (1987), Rasmussen (1992, 184), Derksen (1996, 28), Petit (2010, 74f.), Jasanoff (2017, 141), among others. The major exception is Olander (2009, 105), but Olander’s alternative accounts of the facts explained by Nieminen’s law are not attractive.

⁵ Stang’s main argument was the final accent of Lith. nom. sg. masc. *anàs* ‘that (one)’, *katràs* ‘which (of two)’, which, however, is easily explained as analogical to that of the monosyllabic pronoun *tàs* ‘that’. See Shintani (1987, 181–183) for a more detailed criticism.

final **a* were affected.⁶ Clear-cut instances of Proto-Baltic stressed word-final **-an* are otherwise lacking.⁷ As for **-a*, the Proto-Baltic thematic 3rd person present was almost certainly **uēdā* (from Bl.-Sl. **uēdeti*),⁸ but the initial accentuation of Lith. *vēda* is part of the generalization of columnar accentuation in the Lithuanian verb (and, accordingly, probably has nothing to do with Nieminen's law),⁹ whereas the Prussian evidence is characteristically insecure.¹⁰ Several scholars have reconstructed an oxytone *o*-stem nom.-acc. sg. nt. **-ān* (< PIE **-óm*) or **-ā* (< PIE **-ód*).¹¹ The evidence, however, clearly indicates that this ending was an *enclinenomenon* in Balto-Slavic (cf. Sl. **pōl'e* 'field', **sǔto* 'hundred', Lith. *gēra* 'good', OPr. *assaran* 'lake' Elb., *labban* 'good' Ench.). At present, thus, it is probably safe to conclude that Nieminen's law only affected word-final **-ās*.¹²

Its chronology is more problematic. Nieminen's law certainly took place before Leskien's law in Proto-Lithuanian (the accent was preserved in *ā*-stem acc. pl. *dienās* 'days' AP 4 < pre-Lith. **dēnās* < EBl. **dēnās* < Bl.-Sl. **dēināns*),

⁶ Note, however, that the pres. act. ptcp. nom. sg. masc. could have contained a long vowel (**-ōnts*, *vel sim.*, cf. Villanueva Svensson 2020, 658).

⁷ The *o*-stem acc. sg. Lith. *vaĩnq*, Sl. **vōrnъ* was an *enclinenomenon* (Bl.-Sl. **uārnān*). The same holds true for the nom.-acc. sg. neuter; see below in the text. The secondary 1 sg. thematic ending **-o-m* > Bl.-Sl. **-an* (Sl. **sědb* 'I sat down' AP a, **věsb* 'I led' AP c) has not survived in Baltic. The pres. act. ptcp. nom. pl. masc. *vedq̃* < Bl. **uēdān* seems to prove that Nieminen's law did not affect word-final **-ān* (see further below §7 for another argument), but one cannot exclude the possibility that it was still **-ant* when Nieminen's law took place.

⁸ A different view is that the Baltic 3rd person present continues the PIE secondary 3 sg. **-e-t* (e.g. Olander 2015, 327, among others), in which case it would be irrelevant here (cf. Sl. aor. 2/3 sg. **sěde*, **vēde*). The (also widespread) view that Bl. **uēdā* continues apocopated 3 sg. pres. **-e-ti* is defended in Villanueva Svensson (2017–18). The accent position of **uēdā* has been recently confirmed by Majer (2017).

⁹ Pace Stang (1966a, 453), Rasmussen (1992, 184), among others. Pace Schmalstieg (1984), Lith. *ganā* 'enough' is not a relic of an ending-accented verb form, cf. Petit (2012).

¹⁰ See Rinkevičius (2009, 177–183) for discussion.

¹¹ E.g. Illič-Svityč (1963, 131), Rasmussen (1992, 176), Derksen (1996, *passim*), among others. See e.g. Jasanoff (2017, 83–86, 158–166) for a different account of the facts that the hypothetical Bl.(-Sl.) nom.-acc. sg. nt. **-ān* or **-ā* was supposed to explain.

¹² Though, to be sure, one cannot prove that Nieminen's law did *not* affect word-final **-ā*. See further below §5.

but this is probably all that can be said with complete certainty. As far as I can see, it is impossible to determine whether Nieminen's law took place in Latvian.¹³ As for Old Prussian, the vowel reduction of **-as* in nom. sg. *Deywis* 'God', *awins* 'ram' Elb., *Deiws*, *piēncts* 'fifth' Ench. indicates that **-as* was unaccented and, accordingly, suggests that Nieminen's law goes back to Proto-Baltic.¹⁴ Surprisingly, this is not the generally favored view and most scholars assume, at least implicitly, that the absence of ending accentuation in OPr. *Deywis/Deiws* is unrelated to that of Lith. *lángas*.¹⁵ I find this slightly unattractive, but such a possibility can perhaps not be categorically excluded. At present, thus, the chronology of Nieminen's law must be qualified as unclear.

A final point of uncertainty is the motivation for Nieminen's law. This is an obviously important point, especially considering the highly specific environment in which it took place. Surprisingly, I am not aware of any attempt to provide a phonetic motivation for the retraction of the stress from **-ás* (and, perhaps, only **-ás*). It seems clear that our understanding of Nieminen's law is unlikely to advance till some new evidence comes to light. This is the task to we now turn.

3. The new evidence comes from the dative plural (as already proposed, in part, by Carrasquer Vidal 2014, 14f.). This ending has to face two serious problems in Baltic (not, it is important to stress, in Balto-Slavic).

The first problem concerns the *form* of the ending.¹⁶ The three Baltic languages (OLith. *-mus*, OLatv. *-ms*, OPr. *-mans*) do not match each other. OLith. *-mus* seems to go back to **-mus* (= OCS/ORu. *-mb?*). It could also

¹³ Shintani (1987, 185–187) and Petit (2010, 74f.) have argued that the broken tone of Latv. *luōgs* 'window' implies that Nieminen's law did not take place in Latvian, as **lángas* would have given *†luōgs*. This, however, reflects an obsolete understanding of the origin of the Latvian tones. It is now clear that the broken tone was the specific outcome of acuteness in unaccented word forms (no matter how *enclinema* were actually pronounced), not the result of a 'real' accent retraction; cf. Olander (2009, 118–121), Jasanoff (2017, 62–64), among others.

¹⁴ Contrast gen. sg. *kermenes*, attested five times without the macron on the root vowel (vs. e.g. nom. sg. *kērmens* 'body') and thus almost certainly representing */kermen-és/*, with unreduced stressed final *e*.

¹⁵ E.g. Stang (1957, 185), Shintani (1987, 185).

¹⁶ I cannot here discuss all issues involved. See Olander (2015, 267–272), with references.

go back to **-mōs* or **-mōns* (= OPr. *-mans*?), but this is excluded by the lack of Saussure's law in OLith. *langà-mus*. OLatv. *-ms* cannot continue **-mus*, **-mōns* or **-mōs*, but can go back to **-mas* (= OCS/ORu. *-mъ*?).¹⁷ OPr. *-mans*, finally, is isolated.¹⁸ An often repeated view is that the *-n-* of *-mans* reflects influence of the (*o*-stem) acc. pl. *-ans*.¹⁹ This, however, would be a rather strange type of analogy. As just observed, to simply project the Old Prussian ending back into Proto-Baltic (as **-mōns*, **-mans*, *vel sim.*) will not account for the East Baltic facts without *ad hoc* ancillary assumptions. In contrast with the obscurity of the inner-Baltic picture, the comparative evidence is perfectly clear. In an Indo-European perspective only Bl.-Sl. **-mas* can be seriously defended (cf. Ved. *-bhyaḥ*, OLat. *-bos*, Celtiberian *-bos*, etc.).²⁰ In spite of all the discussion that the development of PIE word-final **-os* in Slavic has provoked, the regularity of (post-)PIE **-mos* > Bl.-Sl. **-mas* > Sl. **-mъ* seems also certain to me.²¹

The second problem concerns stress position. Balto-Slavic mobile paradigms were characterized by stress alternations between unaccented word forms (*enclinema*) and word forms with lexical stress on the *last* syllable.²² The Slavic dat. pl. **vozomъ* 'carts', **golvāmъ* 'heads', **kostmъ* 'bones' **synmъ* 'sons' (all AP c) fully conform to our expectations, stem-accentuation in the *ā*-stem **golvāmъ* being due to Hirt's law. The consistent stem-accentuation of OLith. *langàmus*, *galvómus*, *žvèrimus*, *sūnùmus* is thus unexpected. It has been proposed that (East) Baltic extended the accentuation of the *ā*-stem *šakómus* (: Sl. **golvāmъ*) to the other stems,²³ but this does not look like a natural type of analogy. OPr. dat. pl. *gennāmans* 'women', *mergūmans* 'girls',

¹⁷ As stressed by Olander (2005). The dat. pl. *-m* of modern Latvian has been taken from the dative dual (cf. e.g. Endzelīns 1923, 298).

¹⁸ See below footnote 32 for the variant *-mas* in the personal pronouns.

¹⁹ E.g. Stang (1966a, 185), Olander (2015, 271), among many others.

²⁰ See Olander (2005, 273f.) for a more detailed survey of the comparative evidence. To the facts quoted by Olander one can add the indirect evidence of the Hittite dat.-loc. pl. *-aš* (cf. Jasanoff 2009, 140f.).

²¹ I cannot here devote the necessary space to discuss this much disputed issue. See especially Olander (2012).

²² This picture of Balto-Slavic mobility may be safely qualified as standard. See Lehfeldt (2009) for a general presentation. For reasons of space alternative views cannot be discussed here.

²³ E.g. Kortlandt (1977, 322), Jasanoff (2017, 153), among others.

widdewūmans ‘widows’ agree in accentuation with OLith. *galvómus* (and Sl. **golvámo*). The geminate writing of *waikammans* ‘servants’ (: Lith. *vaikas* ‘child’ AP 4) suggests that the *o*-stems were also accented on the stem vowel (OPr. /*vaikāmas*/ = OLith. *vaikāmus*), but this is not absolutely certain.²⁴

4. In my view, the two problems posited by the dative plural in Baltic have already been solved, at least as far as Lithuanian is concerned (Old Prussian remains more problematic; see below §6).

Carrasquer Vidal (2014, 14f.) has proposed to derive the accentuation of OLith. *langāmus*, *žvėrimus*, *sūnumus* from **langamás*, **žvėrimás*, **sūnumás* via Nieminen’s law.²⁵ This looks almost intuitively correct to me and will simply be taken for granted in what follows. As for the ending *-mus*, Carrasquer Vidal derives it from **-mōns*, which would have coexisted with **-mas* in the prehistory of Lithuanian. This is needless to say quite unsatisfactory.

A more promising approach to OLith. *-mus* was independently presented by Ferrell (1965, 98f. fn. 6) and, with more detail, Kazlauskas (1968b = 1970). According to these scholars OLith. *-mus* derives from **-mas* through a process of vowel reduction (**-mas* > **-mās* > *-mus*, *vel sim.*). The reduction of **-mas* to **-mās* was conditioned by the fact that this ending was always unaccented. The development of **-mās* to *-mus* was conditioned by the fact that the reduced vowel was after a labial nasal. The reduction of *-mus* to modern Lithuanian *-ms* (already dominant in Mažvydas, but quite rare in Daukša) belongs to the recorded history of this language and thus to a much later stage of development. As generally assumed, it was no doubt favored by the fact that *-mus* was always unaccented (contrast both accented and unaccented instr. pl. *-mis*, with regularly preserved *i*).

In spite of its undeniable attractiveness, this account has not become generally accepted and, in point of fact, is rarely quoted.²⁶ I believe there are three reasons for this relative oblivion. First, this leaves OPr. *-mans* unaccounted for. Second, without further parallels this account has an unmistakable *ad hoc* flavor to it. Third, the accent position of **vilkāmas* > *vilkāmus* is just taken for granted, not actually explained.

²⁴ See Rinkevičius (2009, 99f.) for discussion.

²⁵ The accent of the *ā*-stems OLith. *galvómus*, OPr. *gennāmans* is ambiguous. It can directly derive from Bl.-Sl. **-ā-mas* (< **-ā-más* by Hirt’s law), but Bl.-Sl. **-ā-mas* could have been regularized to **-ā-mās* at an early stage of Proto-Baltic.

²⁶ Ferrell and Kazlauskas’s proposal is accepted by Stang (1975, 49) and Olander (2005; 2015, 271).

5. We are now in a position to present a slightly revised version of Nieminen's law. It includes the three elements we have already seen (1. the accentuation of the *o*-stem nominative singular; 2. the accentuation of the dative plural; 3. the vowel of OLith. dat. pl. *-mus*) and aims to provide, at the same time, a phonetic motivation for the very existence of this sound law.

Nieminen's law was a matter of vowel reduction. At some stage of Baltic word-final **-as* (both accented and unaccented) was reduced to **-əs* (*vel sim.*). In the case of accented **-ás*, the reduction to **-əs* made this sequence lose its capacity to carry the stress. The result was retraction of the stress to the preceding syllable.²⁷

As far as I can see, the process I am postulating is unproblematic from a typological point of view. Word-final position is a favorite environment for vowel weakening, including centralization of *a* to *ə* (cf. Gordon 2006, 157). The propensity of *schwa* and other non-low central vowels to reject stress is also well known (Gordon 2006, 184). Probably the most serious handicap is the limitation of the vowel weakening to the position before **s* (as duly pointed out to me by Marek Majer, p.c.). It must be admitted that this is slightly unexpected, as [s] is not otherwise known for its effects on neighboring vowels. I do not know whether **-as* > **-əs* is an exceptionally rare type of sound change, but the weakening of *a* to *ə* need not have been caused by the fricative **s*. All we know for certain is that Nieminen's law did not affect word-final **-an* (§2, 7), but **an* was a diphthong in Baltic, not a sequence of short vowel + consonant. Diphthongs, like long vowels, were not affected by Nieminen's law (cf. Lith. *o*-stem nom. pl. *lang-aĩ*, adj. *balt-i*, *balt-íe-ji* < Bl. **-ái*). We do not know whether Nieminen's law affected word-final **-á* (see above §2) and no other sequences involving *a* in final syllables seem to have existed in Baltic. The weakening **-as* > **-əs* may thus have been a general weakening of **a* in final syllables, not something conditioned by the final **-s* as such (though this is probably not excluded).

6. Our next task will be to try to determine what happened to **-əs* and when did it happen.²⁸

²⁷ The dative plural (**ũĩkamás* > **ũĩkáməs*, etc.) indicates that Nieminen's law involved a 'real' stress retraction and was not a matter of accent loss (nom. sg. **langás* > **lāngəs*, not **lāngəs*). It follows that the initial accentuation of polysyllabic *o*-stems (e.g. Lith. nom. sg. *kātinās* 'cat' AP 3^b) is analogical (for **katinas* < **katinás*).

²⁸ A matter that unfortunately will have to be left open is that of the *status* of **ə* in nom. sg. **-əs* and dat. pl. **-məs*. The currently available evidence points to subphonemic

In Lithuanian *-əs evidently went back to -as in most environments, as this is the regular *o*-stem nom. sg. ending (*lángas*, *vařnas* etc.), but it gave -us at least after the labial nasal, as there is hardly any other way to explain the dat. pl. ending -mus.²⁹ The real development, however, may have been more complicated. In the North and North-West territory of Lithuania final vowels have been subject to various types of reduction (cf. Zinkevičius 1966, 115–120). In principle forms like nom. sg. *lángas* can go back to both *lángas* and **lángəs*. In Žemaitian, however, -as is preserved in specific environments (e.g. after fricatives, *bāsas* ‘barefoot’), and is realized as *basos* (as if from -us) in Northern Žemaitian and surrounding areas. It is at least worth considering whether this and similar phenomena (see Zinkevičius 1966, map 8) may not find a natural explanation starting from nom. sg. *-əs and not, as has always been done, from -as. Similar considerations apply to Latvian (OLatv. nom. sg. -s, dat. pl. -ms). It must also be mentioned that pronominal monosyllabic stems clearly had nom. sg. *-as in Proto-Baltic (Lith. *kàs*, Latv. *kas*, OPr. *kas* ‘who, what’), no doubt because no accent retraction could take place here (the development must thus have been Bl. **kàs* > **kās* > **kás*, *vel sim.*). It is likely that pronominal **kàs*, **tàs* supported the generalization of nom. sg. -as in Lithuanian.

In Old Prussian the *o*-stem nominative singular presents a reduced unstressed vowel (*Deywis* Elb., *Deiws* Ench.). OPr. gen. sg. *kermenēs* /*kermen-ēs*/ clearly indicates that short vowels did not otherwise lose their stress. Note also the consistent writing of the *i*- and *u*-stem nom. sg. as <-is, -ys> and <-us> in the Elbing Vocabulary,³⁰ most probably simply notating /-is/, /-us/. By contrast, the multiplicity of renderings of the *o*-stem nom. sg. (<-s, -is, -ys, -us, -es>) can only be interpreted as /-əs/ or, perhaps, heavily reduced /-ʰs/.³¹ As noted above (§2), it seems unnatural to me to attribute the loss of accent in pre-Old Prussian **deīuās* > **dēīuas* (**dēīuas*)

*[-əs] at all stages of Baltic, but more fine-grained analysis of the prehistory of the Baltic vowel system could perhaps challenge this conclusion in the future.

²⁹ One may speculate that *-əs > Lith. -us in other contexts (e.g. after *-l-) was responsible for the expansion of the *u*-stem adjectives in Lithuanian. See Hill (2013, 179f.) for a different attempt to provide a phonological motivation for the same phenomenon. To be sure, this is not the only explanation one may envisage to account for the productivity of *u*-stem adjectives in Lithuanian.

³⁰ E.g. *dantis* ‘tooth’, *antis* ‘duck’, *pintys* ‘sponge’, *dangus* ‘sky’, *widus* ‘hem’.

³¹ As is the *communis opinio*, e.g. Rinkevičius (2015, 66f., 74, 76).

to anything else than Nieminen's law. The same holds true for the reduced vowel of **dēiūas*, which can now be projected back into Proto-Baltic.

As for the dative plural, we have seen that Old Prussian, like Old Lithuanian, probably had stem-accentuation (OPr. *waikammans*, *gennāmans* = OLith. *langāmus*, *galvómus*). An important corollary of the above discussion (§3) is that OPr. *-mans* cannot be an inherited ending, whereas the traditional assumption of a conflation with the accusative plural is rather unattractive. This, in my view, leaves us with only one option: secondary nasalization **-mās* > **-mā̃s* > **-māns* > *-mans* (or **-mās* > **-mā̃s* > **-mās* > *-mans*, *vel sim.*).³² This is admittedly *ad hoc*, but unetymological nasalization occurs in natural languages and there is no principled reason why it could not have taken place in Old Prussian.³³ This account, to be sure, would also work starting with **-mas* and thus does not provide independent evidence for or against Proto-Baltic **-mās*.

7. A final issue that this revised version of Nieminen's law may help understand is the development of the *ijō*-stem nominative singular.

As is well known, Bl.(-Sl.) nom. sg. **-ijās* gave non-acute **-īs*, which is continued in Lith. *brólis* 'brother' AP 1, *ožỹs* 'goat' AP 3 and Latv. *brālis*, *āzis*. As so often, the Old Prussian evidence is not fully transparent, but the nom. sg. of the secure *ijō*-stems is consistently written <-is> in both the Elbing Vocabulary and the Enchiridion,³⁴ a fact that points to an ending /-īs/ in this language as well. An additional argument in favor of the Proto-Baltic antiquity of the development **-ijās* > **-īs* is the shortening of unaccented **-īs* > **-is* in Lith. *brólis*. As argued by Hill (2016, 214–222) and Villanueva Svensson (2019, 204f.), several facts suggest that this was a regular Proto-Baltic shortening and not an idiosyncratic Lithuanian development. This point is not essential for present purposes and will not be insisted upon here.

³² The idea that OPr. *-mans* reflects secondary nasalization is due to Girdenis and Rosinas (Girdenis, Rosinas 1977, 1f.; Rosinas 2005, 168f.), who, however, started from Proto-Baltic **-mō̃s*. The variant *-mas* in the personal pronouns is, in my view, more likely to rest on a secondary dissimilation (1st person pl. **noūmans* > *noūmas*, whence analogical 2nd person pl. *ioūmas*) than to represent a genuine archaism vis-à-vis *-mans*.

³³ A clear parallel is provided by the Slavic infinitive(-aorist) suffix *-nq-* of Class II verbs (OCS *dvignŋti* 'move', *rinŋti* 'cast, push', etc.), which goes back to **-nūn-*, with secondary nasalization from **-nū-* (the details need not concern us here; see Andersen 1999). Many thanks to Marek Majer (p.c.) for reminding me of this parallel.

³⁴ E.g. *suris* 'cheese', *braydis* 'elk' (Elbing), *bousennis* 'state', *īdis* 'eating' (Enchiridion).

Within the framework developed in this article it is evidently tempting to account for $*-i\ddot{u}as > *-i\ddot{s}$ as part of Nieminen’s law: $*-i\ddot{u}as > *-i\ddot{u}s > *-i\ddot{u}\partial s > *-i\ddot{u}is$ (or $*-i\ddot{u}s$) $> *-i\ddot{s}$.³⁵ If this is correct, it has two interesting implications.³⁶

The first one concerns the accusative singular. Lith. *bról-į*, Latv. *brāl-i* go back to EBl. $*-i\ddot{n}$ and thus may be taken to indicate that the vowel weakening associated to Nieminen’s law also took place in the case of word-final $*-an$. In Old Prussian the acc. sg. $*-i\ddot{u}an$ is written as $\langle -ien \rangle$ and $\langle -in \rangle$ in the Enchiridion, whereas in the Elbing Vocabulary the nom.-acc. sg. nt. is consistently written $\langle -ian \rangle$.³⁷ This clearly shows that no weakening took place in $*-an$. It follows that the East Baltic acc. sg. $*-i\ddot{n}$ is due to analogy and not to regular sound change.³⁸

The second implication is far more important. According to a major school of thought accent retraction from $*-i\ddot{u}a-$, $*-i\ddot{u}u-$, $*-i\ddot{u}\bar{a}-$ was the main source of *métatonie douce* in Baltic and was responsible for other important developments as well.³⁹ It must remain a task for the future to see how this (in my view, obviously correct) theory can be reconciled with the development of the $i\ddot{u}o$ -stem nominative singular presented here (including stress behavior in $*-i\ddot{u}as > *-i\ddot{u}s > *-i\ddot{s}$, if this is what happened).

8. The conclusions of this article are easily stated. Nieminen’s law did not only apply to the *o*-stem nominative singular, but also to the dative plural.

³⁵ The development of Baltic $*-i\ddot{u}as$ to $*-i\ddot{s}$ should not be confused with the much older, Balto-Slavic contraction of $*-e\ddot{u}e-$ to $*-i-$ (e.g. *i*-stem nom. pl. PIE $*-e\ddot{u}es > *-i\ddot{s} >$ Lith. $-\ddot{y}s$, OCS fem. $-i$), on which see Hill (2016, 214–222) and Villanueva Svensson (2019, 202–205).

³⁶ I do not know whether the often quoted Estonian loanword *takijas* ‘thistle’ (Lith. *dagys*, Latv. *dadzis* ‘id.’) has any implications concerning the scenario presented here.

³⁷ E.g. nom.-acc. sg. nt. *median* ‘forest’, *wupyan* ‘cloud’ (Elbing), acc. sg. masc. *boūsenien*, *iđin* (Enchiridion).

³⁸ As often assumed, e.g. Kazlauskas (1968a, 181), Rosinas (2005, 174), among others.

³⁹ E.g. Larsson (2004), Villanueva Svensson (2014), Jasanoff (2017, 83ff.). This view goes back, in essence, to Stang (1966b). Note, as an aside, that Stang’s assumption that Nieminen’s law was another important source of *métatonie douce* has not been upheld in more recent work done in this tradition. It is nevertheless upheld in Derksen (1996), who, however, starts from an (in my view) unacceptable nom.-acc. sg. nt. $*-ā$ and works within a highly questionable approach to Balto-Slavic accentology. Issues of metatony, important as they are in and of themselves, are not crucial for our reformulation of Nieminen’s law and will not be discussed in this article.

This not only accounts for the unexpected accentuation of two endings, but also allows us to specify the phonetic motivation behind this sound law. The primary component of Nieminen's law was not stress retraction, but vowel weakening. Stress retraction was a side effect of the weakening of word-final *-as to *-əs (or, possibly, of any short *a in final syllables). This framework also explains two traditional issues of Baltic historical grammar: the form of the dative plural (OLith. -mus, perhaps OPr. -mans) and the nominative singular *-īs of the *ijo*-stems.

DAR KARTĄ APIE NIEMINENO DĖSNĮ

Santrauka

Niemineno dėsnis buvo balsio redukcijos rezultatas: baltų prokalbėje *-as žodžio gale buvo redukuotas į *-əs ir prarado galimybę turėti kirtį. Tai aiškina šiuos faktus: 1) mobiliųjų o-kam. vns. vard. kirčio vietą (lie. *lángas*, pr. *Deywis/Deiws*); 2) *ijo*-kam. vns. vard. *-īs < *-iās (lie. *ožỹs*, pr. *braydis*); 3) s. lie. dgs. naud. -mus < *-mās; 4) mobiliųjų vardažodžių dgs. naud. kirčio vietą (lie. *langàmus*, pr. *waikammans*).

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