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Saussure's Law, the nom. pl. in *-ai*, and the treatment of acute diphthongs in final syllables in Lithuanian

§1. Let us begin with a few definitions and assumptions.

Saussure's Law was the well-known pre-Lithuanian sound change by which the accent (/ˊ/) was drawn from a non-acute syllable to an immediately following acute syllable. Acuteness was an accent-independent property of long vowels and diphthongs, here denoted by underlining. Exx.: **pra̍šī̠ti* > **prašī̠ti* (> *prašýti*), **ra̍nkā̠* > **rankā̠* > *rankà*); but **rā̠dī̠ti* > *ródyti*, **vā̠rnā̠* > *várna*.

Acuteness was a Balto-Slavic feature, probably originally realized as a *stød* or broken tone. As argued in Jasanoff 2004, 249 ff., it was historically proper to all "normal" long vowels, including a) inherent long vowels not in absolute final position (e.g., *núoma* < **nōm-*; cf. Villanueva Svensson 2011, 30); b) long vowels by laryngeal lengthening (e.g., *móteris* < **meh₂-t-*); c) long vowels by Winter's Law (e.g., *núogas* < **nŏgʷo-*); and d) long vowels by inner-IE contraction (e.g., *o*-stem loc. sg. *ratè* < **-ēn* < endingless loc. **-e + en*).[1] The only long vowels that did *not* become acute, under this theory of acuteness, were those that were hyperlong, i.e., equipped with an extra component of length. Hyperlong vowels were of two types: a) long vowels arising from contraction across a laryngeal hiatus (e.g., *ā*-stem nom. pl. *rañkos* < **-ās* (NB: not **-ā̠s*) < **-eh₂-es*); and b) inherent long vowels in absolute final position, which were prolonged by an early phonetic rule that Balto-Slavic shared with Germanic (e.g., *akmuõ*; cf. Go. *namo* 'name' < PGmc. "trimoric" **-ō̄* < PIE **-ō*).

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[1] Not a standard etymology, but the only one that accounts for both the form and intonation of the ending. The underlying thematic endingless locative is probably preserved in Gk. *tẽle* 'far off' (A. Nussbaum, p.c.). A contraction of the same type may underlie the BSl. instr. pl. in **-mī̠s*, if this is from **-mi* + the older instr. pl. in **-is* (cf. Jasanoff 2009b, 141-3). There is no basis for a laryngeal sequence **-miHs*.

§2. Against this background, we may turn to the special problem of the formation of the nom. pl. of *o*-stems in Balto-Slavic, and in Lithuanian in particular. The IE starting point is well known: PIE *o*-stem nouns formed their nom. pl. in **-ōs* (< pre-PIE **-o-es*), while the nom. pl. of what might be called *o*-stem pronouns ended in **-oi*. The inherited distribution is preserved in Indo-Iranian (Ved. *té vŕ̥kāḥ* 'those wolves') and Germanic (Go. *þai wulfos* 'id.'); Greek and Latin generalized the pronominal ending (cf. Gk. *hoi lúkoi*, Lat. *illī lupī*). Balto-Slavic took the same course as Greek and Latin. Slavic has *-i* in both nouns and pronouns (cf. OCS *ti vlъci*); for the treatment *-i* (< "**-i̯₂*") rather than *-ě* (< "**-ě₂*") see below. On the Baltic side, Old Prussian likewise has *-ai* < **-oi* in both categories (*stai wijrai* 'the men'). Only in Lithuanian (Latvian is ambiguous here) are there two endings, *both* apparently going back to BSl. **-ai* < PIE **-oi*:

1) **-ę̄* in pronouns and adjectives, whence *-i*, *-ì* in absolute final position (*turtìngi*, *gerì*), *-ie*, *-íe* in protected position (*geríe-ji*), and *-iẽ* (with circumflex metatony) in monosyllables (*tiẽ*, *jiẽ*; contrast Latv. *tiẽ*, with acute). Distinctive properties of pre-Lith. **-ę̄* are that it is acute, triggers Saussure's Law (cf. *gerèsnis*, pl. *geresnì*; archaic, dialectal *añtras*, pl. *antrì*), and is "dominant," i.e., receives the accent in mobile paradigms (e.g., *áukštas*, *plókščias*, pl. *aukštì*, *plokštì* (3)).

2) **-ai* in nouns, surfacing unchanged as *-ai*, *-aĩ* (*púodai*, *vilkaĩ*, etc.). Unlike the pronominal ending, this ending is non-acute ("circumflex") and does not trigger Saussure's Law (cf. *rãtai* (2). Like **-ę̄*, however, it takes the accent in mobile paradigms (cf. *langaĩ* (3)).

§3. Of **-ę̄* and **-ai*, the former is by far the more straightforward. Monophthongization to **ę̄* (> *ie*, etc.) is the normal Lithuanian treatment of Proto-Baltic / Balto-Slavic **ai* of any origin, both acute and non-acute, in final syllables. Well-known examples include the loc. sg. adverb *namiẽ* < PIE **-o-i*[2] (cf. Gk. *oíkoi* 'at home', *Isthmoĩ* 'on the Isthmus'), the 3 p. permissive *te-vediẽ* < PIE optative **-o-ïh₁-t* (cf. Gk.

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[2] Disyllabic **-oï*, *pace* Jasanoff 2009a: 55-7.

-*oi*; Jasanoff 2009a: 53 ff.), the $\bar{a}$-stem nom.–acc. du. *dvì rankì* < *-$\bar{e}$* < PIE *-*eh₂-ih₁*,[3] and the athematic 1 sg. *esmì* < *-*mai* (cf. OPr. *asmai*) < PIE *-*mi* × *-*h₂e* + *i*. The surprising property of the ending *-$\bar{e}$* is not its segmental shape, but its acuteness. That this feature is old is confirmed by the Slavic treatment *-*i₂*. As most recently argued by Gorbachov (2015), building on Jagić (1906) and later writers, Proto-BSl. acute *-*ai* gave *-*i₂* in final syllables in Slavic, while non-acute *-*ai* gave *-*ě₂*. The acute treatment appears in the nom. pl. in *-*i₂* and the 2-3 sg. impv. in *-*i₂* < *-*ais*, *-*ait* (OCS *vedi*);[4] the non-acute treatment is seen in the *-*ě₂* of the *o*-stem loc. sg. (OCS *vlъcě*) and (contrasting with Lithuanian) in the $\bar{a}$-stem nom.–acc. du. (OCS *rǫcě*). For Proto-Balto-Slavic we have no choice but to set up an acute nom. pl. in *-*ai*.

The acuteness of Proto-BSl. *-*ai*, however, cannot have been phonologically regular. The supposed equation

BSl. acute nom. pl. *-*ai* = Gk. "acute" nom. pl. -*oi*, -*oí* (*oĩkoi*, *agathoí* 'good')

BSl. non-acute loc. sg. *-*ai* = Gk. "circumflex" loc. sg. -*oi*, -*oí* (*oíkoi*, *Isthmoĩ*)

is spurious. The Balto-Slavic and Greek acutes are unrelated: acuteness in Balto-Slavic — marked — is a reflex of former length; acuteness in Greek — unmarked — means only that the relevant vowel or diphthong was not the result of a contraction. The acuteness of Proto-BSl. *-*ai* must therefore have been analogical. The most likely "donor" of the acuteness feature was the lost nominal ending PIE *-*ōs*, which contained a long vowel. A possible scenario would have been the following:

	pronouns	nouns
1) PIE	*-*oi*	*-*ōs*
2) pre-BSl., with long vowels marked as acute	*-*ai*	*-*ōs*
3) analogical spread of acuteness	*-*ai*	*-*ōs*
4) analogical spread of pronominal ending	*-*ai*	*-*ai*

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[3] With analogical acuteness in Lithuanian here and in the next example; see below.

[4] The optative suffix is non-acute in Lithuanian (cf. permissive -*iė*), but acute in Slavic (2 pl. *-*ěte*).

The phenomenon of analogical acuteness is well known. We have already seen the Lithuanian $\bar{a}$-stem nom.-acc. du. *dvì rankì* < PIE *-eh_2-ih_1*, with acuteness taken from the other nom.-acc. du. endings (*-ō̲* < *-oh_1*, *-ī̲* < *-ih_1*, *-ū̲* < *-uh_1*), and Lith. athematic 1 sg. *-mi(e)*, *-mí(e)* < *-m*a̲i̲, with acuteness taken from thematic *-u(o)*, *-ú(o)* < *-ō̲* < *-oh_2*.

§4. If PIE *-oi* gave BSl. *-a̲i̲*, with analogical acuteness, where did non-acute *-ai*, *-aĩ* come from? In Stang's words (1966: 66), "Hier stehen wir vielleicht dem am meisten diskutierten Problem der lit. historischen Formenlehre gegenüber." One possibility would be that the just-discussed analogical change of *-ai* to *-a̲i̲* affected only pronouns and adjectives, leaving nouns untouched:

PIE *-oi* > pre-BSL *-ai* > Proto-BSl. *-ai* (nouns; cf. Lith. *vilkaĩ*)[5]

→ Proto-BSl. *-a̲i̲* (pronouns and adjectives; *gerì*, *tiẽ*)

But this is hardly likely, since (*inter alia*) the locus of acuteness was precisely in the ending *-ō̲s*, which was proper to nouns. Kortlandt (1993) takes Lith. *-ai* to be the regular reflex of Proto-BSl. unaccented *-ai*, and Lith. *-ē̲* > *-ì(e)* to be the reflex of an etymologically distinct *-aHi*, formed by adding *-i* to the inherited *o*-stem nom.-acc. neuter ending *-eh_2*. There is almost no support, however, for the idea that only accented *ai* was monophthongized to *ē̲* in East Baltic (cf. Stang 1966: 67); the fact that *-ai* is specifically accented in mobile paradigms speaks strongly against it.[6] The claim that one or the other of the Lithuanian endings goes back to a neuter plural in "*-ăi*" (*vel sim.*) has a long and unedifying history in Baltic studies.[7] In the last analysis, it flies in the face of common sense to think that *-ai* and *-ē̲* go back to completely independent preforms.

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[5] Slavic would then have to have extended the acute treatment (*-i_2*) from pronouns to nouns secondarily.

[6] Kortlandt argues (1993: 46) that the final accent of Lith. *vilkaĩ* is secondary, citing BCS nom. pl. *vûci*, with root accent. It is more likely Slavic, however, with uniform initial accent in the nom. pl. in all stem classes, that has innovated vis-à-vis the more complicated situation in Baltic.

[7] For older theories see Nieminen 1922.

§5. The difference between *-ai* in nouns and *-ẹ̄* in pronouns and adjectives, being confined to Lithuanian, is probably relatively recent. The East Baltic sound change of **ai* to **ẹ̄*, when it took place, must have begun with a fronting of the first element of the diphthong to some variety of [e] or [ɛ]; the two components of the new diphthong **ɛi* then underwent mutual assimilation, giving **ẹ̄*. Suppose now that the nom. pl. of *both* nouns and pronouns originally ended in **-ai*, and that this **-ai* was at first regularly fronted to **-ɛi* in both categories. Putting aside considerations of accent and acuteness, the pre–East Baltic plural paradigms would then have been

	pronouns	nouns
nom.	**tɛi*	**vilkɛi*
gen.	**tōn* or **tɛisōn*[8]	**vilkōn*
dat.	**tɛimus*[9]	**vilkamus*
acc.	**tō(n)s*	**vilkō(n)s*
instr.	**tais*[10]	**vilkais*[10]
loc.	**tō(n)su*	**vilkō(n)su*

We can now pose the problem of the nominal ending *-ai* as a question: why did nom. pl. **vilkɛi*, with regularly fronted **-ɛi < *-ai*, apparently get *remade* to **vilkai*, undoing the fronting rule? The answer must once again be analogy. Consider:

1) Nouns of the type E. Balt. **vilkas* were descriptively *a*-stems, with **-a-* in key positions in the paradigm (**-amus*, **-ais*; also nom. sg. **-as*, acc. sg. **-an*, dat.-instr. du. **-amV*). There would thus have been pressure to substitute **-ai* for **-ɛi* in the nom. pl.

2) The pronouns also had **-a-* in many forms. But in pronouns these were concentrated in the singular (cf. Lith. *tàs*, *tãm(ui)*, *tą̃*, *tamè*), while the fronted

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[8] Cf. OPr. *stēison*, OCS *těxъ* vs. Lith. *tų̃*, Latv. *tùo*. The pronominal ending (< PIE **-oisoHom*) may still have been present in early East Baltic.

[9] Cf. Lith. *tìems*, Latv. *tiẽm*.

[10] With unfronted *-ai- < *-ōi-*, perhaps via an intermediate stage **-ŏi-*. See note 16.

diphthong *-ɛi- was found in the nom. pl., the dat. pl. (*tɛimus), perhaps the gen. pl. (*tɛisōn), and the dat.–instr. du. (cf. Lith. tíemdviem).

I suggest, therefore, that *-ɛi was replaced by *-ai in nouns (*vilkɛi → vilkai) but not in pronouns, where it was "supported" by the *-ɛi- of other plural and dual forms in the pronominal paradigm.

§6. Apparently standing in the way of the proposed identification of -ai and *-ḗ is the fact that the two endings differ in intonation. At the surface level this is not surprising, since acute vowels and diphthongs are not tolerated in final syllables in standard Lithuanian. Except in monosyllables, acute monophthongs in final syllables are shortened (e.g., galvà < *galvā́; Leskien's Law), and acute diphthongs are de-acuted or "circumflexed" (e.g., 1 sg. sakaũ, 2 sg. sakaĩ < *-àu, *-ài). But two facts stand in the way of trying to take vilkaĩ from *vilkái (i.e., *-ài) by low-level metatony:

1) Genuine underlying acute diphthongs in final syllables seem to have triggered Saussure's Law before losing their acuteness, as in sakaũ, -aĩ above (< *sàkau, *-ài). The nom. pl. in -ai did not have this effect (cf. rãtai (2)).

2) A contrast between acute and non-acute diphthongs still exists in final syllables in Žemaitian. In Žemaitian the 1, 2 sg. verbal endings are audibly acute (sakâu, sakâ, with broken tone), while the nom. pl. ending is circumflex (vâkã = standard Lith. vaikaĩ).

The case against taking vilkaĩ from *vilkái thus looks very strong. But the forms sakaũ and sakaĩ (i.e., the 1–2 sg. of the presents and preterites in *-ā-) are unique; no other diphthongal endings in Lithuanian, so far as I am aware, trigger Saussure's Law and surface as acute in Žemaitian.[11] Given the complex history of the Baltic inflection in *-ā- (see below), the testimony of these two verbal endings needs to be looked at in more detail.

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[11] Other than the parallel -iaũ, -eĩ of the ē-preterite.

§7. The Baltic *ā*-presents, which have lent their inflection to the *ā*-preterites, are cognate with the Hittite factitive presents of the type *newaḫḫ-* 'make new' (: *newa-* 'new'; cf. Lat. *renouāre*). The original nucleus of the Baltic forms must have consisted of verbs like *$sth_2té-h_2$-* 'make to be *$sth_2té/ó$-*' i.e., 'set up' (= Lith. *stataũ*, *stãto-* 'build'). Hittite verbs of this type inflect according to the *ḫi*-conjugation (3 sg. *newaḫḫ-i*), implying a PIE "h_2e-conjugation" paradigm *$neu̯éh_2$-h_2ei*, *$neu̯éh_2$-th_2ei*, *$neu̯éh_2$-e*, etc. (cf. Jasanoff 2003: 139-41). Such presents were typically thematized in the IE daughter languages. In Balto-Slavic the result was a present type in *-eh_2e/o-; the sequence *-eh_2e/o- gave the non-acute *-*ā*- of Lith. 3 p. *sãko*, 1 pl. *sãkome*, etc. The 1 sg. and 2 sg., however, are less straightforward. In the 1 sg. the phonologically regular treatment of the thematic 1 sg. in *-eh_2oh_2* would have been non-acute *-*ā* (> Lith. *-*o) or non-acute *-*ō* (> Lith. *-*uo), not acute *-*au. In the 2 sg., *-eh_2esi* would presumably have become *-eh_2ei* (*vel sim.*), with the same replacement of *-*esi* by *-*ei* (or *-*ai*) as in other thematic presents; *-eh_2ei* in turn would probably have given *non*-acute *-*ai*, as in the *ā*-stem dat. sg. (*rañkai* < *-eh_2ei*). This means that the quasi-attested 1 sg. in *-*au (*sakaũ*, Žem. *sakâu*) is wholly analogical, and the quasi-attested 2 sg. in *-*ai (*sakaĩ*, Žem. *sakã̂*) at least partly so.

§8. The simplest way to explain *sakaũ*, *-aĩ* is to take these forms from reconstituted (trisyllabic) *$sȧkāu̯$* and *$sȧkāi̯$*, respectively, with the productive endings *-*ū̯* and *-*ī̯* added to the synchronic stem in *-*ā*-.[12] Starting from such preforms, it is easy to construct a scenario such that acuteness would have been lost in old acute diphthongs (specifically, in nom. pl. *-ai* < *-*ai*) without triggering Saussure's Law, while new acute diphthongs would have been produced that did trigger, or appear to trigger, the rule. One possibility would have been the following:

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[12] For a typological parallel to the addition of a syllable in this way, compare Latin gen. sg. *fīliae* < OLat. *fīliāī*, with the *o*-stem ending *-ī* added as an extra syllable to the *ā*-stem *fīlia* 'daughter'.

	nom. pl.	*ā*-pres.1 sg.
1) starting point (acute nom. pl. *-*ai*; disyllabic 1 sg. *-*āǭ*)	*rátai	*sákāǭ
2) loss of acuteness in diphthongs in final syllables: *-*ai* > *-*ai*	*rátai	*sákāǭ
3) contraction of *-*āǭ* to a new acute diphthong: *-*āǭ* > (*-*āu* >) *-*au*[13]	*rátai	*sákau
4) Saussure's Law: movement of the accent to a following acute syllable (*sákau > *sakáu)	*rátai	*sakáu
5) retention of acuteness in Žemaitian and (re-) loss of acuteness in standard Lithuanian[14]	rãtai	sakaũ / sakâu

It is easy to think of variations on this theme.[15] The key point is that since the supposed acute diphthongs in *sakaũ*, *-aĩ* were "spurious," i.e., produced by late contraction, they have nothing tell us about whether Saussure's Law would have been triggered by a real acute diphthong like the nom. pl. in *-*ai*. The claim of this paper is that old acute diphthongs in final syllables lost their acuteness too early to constitute an environment for Saussure's Law. Under the scenario above, the conditioning agents for Saussure's Law would have been a) ordinary acute long vowels, b) acute monophthongs that went

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[13] With spreading of the acuteness of the *-*ǭ* to the non-acute *-*ā*- when the two merged into a single syllable.

[14] It might seem an undesirable feature of this account that acuteness is stipulated to have been lost twice, once in step 2 and again in step 5. But the re-loss in step 5 would have been a trivial event, triggered by the fact that the two verbal endings would have been virtually the only acute final vowels in the language.

[15] A major alternative would be to date step 2 — the elimination of acuteness in inherited final diphthongs — after Saussure's Law, but to limit Saussure's Law to monophthongs. We might then have 1) *rátai : *sákāǭ > 2) *rátai : *sákāǭ (spreading of acuteness from *-*ǭ* to *-*ā*- in *sákāǭ) > 3) *rátai : *sakā́ǭ (Saussure's Law, confined to monophthongs) > 4) *rátai : *sakā́ǭ (loss of acuteness in final diphthongs) > 5) *rátai : *sakáu (contraction). Arguing against this, as pointed out by an anonymous reviewer, is the operation of Saussure's Law in the word-internal suffix of the superlative (cf. OLith. *geriáusias* 'best', *brángiausias* 'most expensive' < *gèriausias, *brángiausias).

back to earlier diphthongs (notably *$\bar{ę}$ < *$\underline{ęi}$ < *$\underline{ai}$), and c) secondary acute diphthongs that arose by contraction (*$\underline{au}$ < *$\bar{a}\underline{ǫ}$; *$\underline{ai}$ < *$\bar{a}\underline{ę}$). Primary acute diphthongs (*$\underline{ai}$, *$\underline{au}$) lost their acuteness before the rule applied.

§9. If the Lithuanian nom. pl. in *-ai*, *-aĩ* was really the reflex of a Balto-Slavic acute diphthong *-$\underline{ai}$, then a similar history can be assumed for other diphthongal endings with a superficially "circumflex" profile. Here belong two important cases:

1) the *o*-stem (= synchronic *a*-stem) dat. sg. in *-ui* < PIE *-ōi < pre-PIE *-o-ei*. Since the contraction to *-ōi* was a *fait accompli* in the protolanguage, the long vowel — and hence the long diphthong — should have come out as acute *-ō$\underline{i}$ in Balto-Slavic. Nothing prevents us now from actually assuming pre-Lith. acute *-$\underline{ǫi}$, with the same pre-Saussure's Law "de-acuting" to *-$\bar{ǫ}i$ (> *-ui*, *-uĩ*) as in nom. pl. *rát$\underline{ai}$ > *rátai (> rãtai)

2) the *o*-stem instr. pl. in *-ais*, *-aĩs* < PIE *-ōis. As in the dat. sg., the long diphthong can be assumed to have given a Balto-Slavic acute, which was de-acuted to Lith. *-ais* via the possible intermediate stage *-$\underline{ŏis}$.[16]

The significance of these endings is that they represent the most serious remaining exceptions to the position that inherent long vowels — long vowels of non-laryngeal, non-Winter's Law origin — came out [+acute] in Balto-Slavic. The claim here is that they *were* acute until this feature was secondarily lost by the de-acuting of diphthongs.

§10. Let us summarize:

1) The Proto-BSl. nom. pl. of *o*-stems and *o*-stem pronouns ended in *-$\underline{ai}$, with acuteness borrowed from the nominal ending *-$\bar{ǫ}s$.

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[16] Cf. note 10. The Osthoff's Law shortening of *-ōis was evidently distinct from normal *-$\underline{ais}$, which would eventually have given *-$\bar{ę}s$ (rather than *-ais*) in Lithuanian and *-i_2 (rather than *-y*) in Slavic.

2) Proto–BSL.*-_ai_ gave Slavic *-_i₂_. In pre-Lithuanian, *-_ai_ split secondarily into a phonologically regular reflex *-_ɛi_ > *-_ę̄_ (in pronouns and adjectives) and a "morphological" (= analogical) reflex *-_ai_ (in nouns).

3) After the monophthongization of *-_ɛi_ > *-_ę̄_, but before the contraction of *-_āǭ_ to *-_au_ and *-_āę̄_ to *-_ai_ in _ā_-presents, acute diphthongs in endings, including the nom. pl. in *-_ai_, the dat. sg. in *-_ǭi_, and the instr. pl. in *-_ŏis_(?), lost their acuteness by regular sound change.

4) Saussure's Law was triggered by the "new" acute diphthongs *-_au_ and *-_ai_ in _ā_-presents, but not by the de-acuted endings that surface as _-ai_ (nom. pl.), _-ui_ (dat. sg.), and _-ais_ (instr. pl.).

[_Summary_: This paper addresses the relationship of the Lith. nom. pl. endings _-ai_ (_-aĩ_) and _-i_, _-ie_ (_-ì_, _-ie_) to each other and to their common source, the PIE pronominal nom. pl. in *-_oi_. It is argued that the Proto–BSl. preform was *-_ai_, with acuteness analogically taken from the corresponding nominal ending *-_ōs_. Proto–BSl. *-_ai_, which developed regularly to _-i_ in Slavic and to _-ai_ in Old Prussian, had two reflexes in Lithuanian. The phonologically regular treatment is seen in the pronominal and adjectival ending _-i(e)_, which developed from *-_ai_ to *-_ę̄_ via the presumed intermediate stage *-_ɛi_. The nominal ending _-ai_ is a morphological treatment of the same sequence, with a) *-_ɛi_ remade to *-_ai_ under the influence of paradigmatically related forms in *-_a-_, and b) acuteness subsequently lost in a final syllable. The second step runs counter to standard opinion, which holds that underlying acute diphthongs in final syllables trigger Saussure's Law and retain their acuteness in Žemaitian, as in the _ā_-present forms 1 sg. _sakaũ_, 2 sg. _sakaĩ_ (Žem. _sakâu_, _sakẫ_). It is maintained here, however, that the verbal endings that appear as _-aũ_ and _-aĩ_ in standard Lithuanian are not historically diphthongs at all, but contracted sequences that arose after the "de-acuting" of the inherited nom. pl. in *-_ai_ to _-ai_ and before Saussure's Law. A byproduct of this explanation is that other descriptively non-acute diphthongs in final syllables, notably the dat. sg. in _-ui_ (< PIE *-_ōi_) and the instr. pl. in _-ais_ (< PIE *-_ōis_), can also be assumed to have been originally acute, as their etymologies require.]

WORKS CITED:

Gorbachov, Yaroslav. 2015. The dual treatment of *-*oi* in Slavic revisited. *Balkanistica* 28, 75-99.

Jagić, Vatroslav. 1906. Die Formen der aks. Deklination, angez. von V. Jagić. *Archiv für slavische Philologie* 28, 117-25.

Jasanoff, Jay. 2003. *Hittite and the Indo-European Verb*. Oxford/New York: Oxford University Press.

_____. 2004. Acute vs. circumflex: some notes on PIE and post-PIE prosodic phonology. *Per Aspera ad Asteriscos. Studia Indogermanica in honorem Jens Elmegård Rasmussen sexagenarii Idibus Martiis anno MMIV*, edd. Adam Hyllested, Anders Richardt Jørgensen, Jenny Helena Larsson, Thomas Olander [*IBS* 112], 247-255. Innsbruck: Institut für Sprachwissenschaft.

_____. 2009a. Notes on the internal history of the PIE optative. *East and West: Papers in Indo-European Studies*, edd. Kazuhiko Yoshida and Brent Vine, 47–68. Bremen: Hempen.

_____. 2009b. *-*bhi*,*-*bhis*,*-*ōis*: following the trail of the PIE instrumental plural. *Internal Reconstruction in Indo-European: Methods, Results, and Problems*, edd. Jens Elmegård Rasmussen and Thomas Olander, with the collaboration of Anders Richardt Jørgensen [*Copenhagen Studies in Indo-European* 3]*, 137-49. Copenhagen: Museum Tusculanum Press.

Kortlandt, F. H. H. 1993. Tokie šalti rytai. *Baltistica* 28(1), 45-48.

Nieminen, Eino. 1922. *Der urindogermanische Ausgang -ăi des Nominativ-Akkusativ Pluralis des Neutrums im Baltischen*. Helsinki: Druckerei der Finnischen Literaturgesellschaft.

Stang, Christian S. 1966. *Vergleichende Grammatik der baltischen Sprachen*. Oslo: Universitetsforlaget.

Villanueva Svensson, Miguel. 2011. Indo-European long vowels in Balto-Slavic. *Baltistica* 46(1), 5–38.