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THE ACCENTUATION OF BALTO-SLAVIC *Vṛddhi* FORMATIONS AND THE ORIGIN OF THE ACUTE¹

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Abstract

There is still no scholarly consensus about the origin of the Balto-Slavic intonations. The traditional view is that all long vowels and diphthongs receive the acute in Balto-Slavic, while short vowels and diphthongs are circumflexed. On the other hand, according to the Leiden school, the only source of the Balto-Slavic acute is the glottal stop, which is either a reflex of the PIE laryngeals, or of the following glottalized stops (traditional voiced stops) in syllables that underwent Winter's law. We believe that the traditional view that PIE lengthened grade vowels receive the acute in Balto-Slavic can no longer be defended. It is contradicted by such examples as PIE **d^hugh₂tēr* 'daughter' > Lith. *duktė*, PIE **(H)rēk-s-o-m* 'I said' > Croat. *rijéh*, PIE **h₂ōwyom* 'egg' > Croat. *jâje*. It should also be taken as proved that syllables closed by laryngeals and voiced stops (or glottalics, by Winter's law) received the acute intonation in Balto-Slavic. However, the fact that the PIE lengthened grade long vowels are circumflex in Balto-Slavic does not prove that all lengthened grade long vowels in Balto-Slavic are circumflex. In the present paper we attempt to show that a number of *Vṛddhi* formations, that were not inherited from PIE, received the acute in Balto-Slavic. These are the words with reflexes in both Baltic and Slavic languages, derived from PIE roots by means of *Vṛddhi*, which remained a productive pattern of derivation during the period of Balto-Slavic unity, and probably later. Such words have the lengthened grade only in Balto-Slavic, but not in other IE languages, which shows that their *Vṛddhi* is not inherited from PIE. This paper systematically analyzes such material in order to show that the Balto-Slavic *Vṛddhi* formations, in contradistinction to the inherited PIE long vowels, received the acute intonation.

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1. Theories of the origin of Balto-Slavic acute

There are three current theories about the origin of the Balto-Slavic acute intonation:

1. The traditional theory: acute developed on all long vowels, whether apophonic or secondarily lengthened after the loss of laryngeals (e.g. Carlton 1991).
2. The Leiden school approach (Derksen 1996; Kortlandt 2011; Pronk 2012): the acute developed from glottalization, which in turn occurred on vowels preceding laryngeals and voiced (< glottalized) stops (by Winter's law). All apophonic long vowels are circumflexed.
3. Villanueva-Svensson's theory: apophonic long vowels are circumflexed in non-initial syllables and monosyllables, but acuted in initial syllables. Vowels lengthened by the loss of laryngeals are acuted (Villanueva-Svensson 2011).
4. The present writer's opinion (Matasović 2008): the Leiden school is correct with respect to PIE lengthened grade vowels, which are circumflexed. However, new, morphologically derived lengthened grades in Balto-Slavic receive the acute. This is the 'Balto-Slavic *Vṛddhi*', to which this paper is dedicated.

2. *Vṛddhi* in PIE?

Vṛddhi is a formation of denominal adjectives by lengthening the root syllable. The process is best attested in Indo-Iranian, especially in Sanskrit, cf. Skt. *sákhi*- 'follower, friend' vs. *sākhya*- 'society', *vis*- 'village, settlement' vs. *vaiśya*- 'member of the vaiśya caste', *mānuṣa*- 'connected with men' vs. *mānuṣa*- 'man'.

It is unclear whether Indo-Iranian *Vṛddhi* is a process inherited from Proto-Indo-European, or it developed in the already differentiated Indo-Iranian proto-language (or a group of Indo-European dialects, to which Indo-Iranian belonged). The existence of *Vṛddhi* in PIE is rather disputed. If it existed as a derivational process, it was certainly rare. A possible PIE instance of *Vṛddhi* is the word for 'egg':

PIE **h₂ewi*- 'bird' > Lat. *avis*, Skt. *vī*-: PIE **h₂ōwyom* ('that of the bird, bird's' > 'egg') > Lat. *ōvum*, OHG *ei*, ON *egg* (< PGerm. **ajjaz*-n), Croat. *jâje* (Novi), Pol. obs. *jajo*, *jaje*, ULus. *jejo* < PSll. **âje*, (AP c), Derk. 27, ESSJa I: 61–2). Alternative reconstruction of the word for 'egg' may be PIE **h₂oh₂w(y)o-*, with the first reduplicated syllable, as in PIE **h₁oh₁k'u-* 'quick' vs. **h₁ek'wo-* 'horse', **k^wek^wlo-* 'wheel' (< **turning*) from **k^wel(H)-* 'turn'. If this is accepted, there is no need to posit a *Vṛddhi* formation.²

3. Balto-Slavic *Vṛddhi*?

Just as it is uncertain whether *Vṛddhi* existed in PIE, it is at present unclear whether it should be posited in Balto-Slavic. Since Balto-Slavic shares a number of isoglosses with Indo-Iranian (e.g. the operation of RUKI-rule and the satemization of

² For possible other instances of *Vṛddhi* in PIE and Germanic see Darms 1978.

palatalized velars), this question cannot be answered without a careful examination of the available evidence. Collection of (mostly implausible) examples of the derivational lengthened grade in Slavic can be found in Gołąb (1967). More probable cases have been collected below, and they share three defining features: firstly, they contain either an acuted long vowel, or an acuted diphthong, and are derived from roots that do not end in laryngeal. Secondly, they usually have a derived meaning with respect to the meaning of the base noun. Their meaning is usually possessive, relational, or collective: ‘belonging to X’, ‘pertaining to X’, ‘descending from X’, or ‘a collection of X’es’, where X is the base noun. Finally, formations with “Balto-Slavic *Vr̥ddhi*” usually do not show evidence for lengthened grade except in Balto-Slavic. Here is the relevant material:

1. PSl. **bérme* (a) ‘load, burden’ (OCS *brěme*, Russ. dial. *berémja*, Pol. *brzemie*, Croat. *brěme*) < PIE **b^her-* ‘carry, bear’ (Lat. *fero*, Gr. *phérō*, Skt. *bhárati*, etc.), cf. Skr. (L sg.) *bhárman* ‘by bringing’, RV 8,2,8 < **b^hērmen-* (NIIL 16). Alternatively: PSl. **bérme*, Skr. *bhárīman-* ‘burden, maintenance’ < **b^her-H-men-* (but the suffix *-īman-* in Skr. cannot be used as evidence for the laryngeal, cf. *dhárman-* besides *dhárīman-* ‘support’ from **d^her-* ‘support, fix’, IEW: 252–3, Wackernagel-Debrunner 1954: 756).
2. Lith. *káimas*, *káima* ‘village’ vs. *kiēmas* ‘farmstead’, from the root of Goth. *haims* ‘village’. Ultimately, they may be from the same root as number 9 below. Derksen (1996) explains the acute of *káima(s)* by metatony, pointing out that the reflex *-ai-* for original **-oy-* means that the root was originally unstressed, so that the acute may be attributed to the retraction of the stress from the last syllable. If this is correct, the circumflex of *kiēmas* would be original, and Lith. *kiēmas* and *káima(s)* would represent PIE **kóymo-* and **koymó-* respectively.
3. PSl. **kórsta* (a) ‘crust’ (Russ. *korósta*, Pol. *krosta* ‘pustule’, Croat. *kràsta*) may be a *Vr̥ddhi* derivative from the root of Lith. *karšti*, *karšiu* ‘card, comb (wool)’, Latv. *kārst* ‘id.’ < PIE **sker-* ‘cut, scratch’ (OHG *skerran* ‘scratch’, Lat. *carro* ‘card (wool)’, DV: 95).
4. PSl. **lápa* (a) ‘paw’ (Russ. *lápa*, Pol. *łapa*, Croat. dial. *lāpa*, Slov. *lápa* ‘snout’, ESSJa XVI: 26–28), Lith. dial. *lópa* (1) ‘paw’, Latv. *lāpa* ‘paw’. Like Goth. *lofa* ‘flat of the hand’, this appears to go back to PIE **leh₂p-*, or **lōp-*, which may be a *Vr̥ddhi* formation to **lop-* seen in OCS *lopata* ‘shovel’, Russ. *lopáta*, Croat. *lòpata* (ESSJa XVI: 39–43), Lith. *lāpas* ‘leaf’. However, Lith. *lòpeta* ‘shovel’ and Latv. *lāpsta* show the word for ‘shovel’ with the long vowel and the acute (Smocz.: 363). Derk. (268–269) proposes that there were two different roots, **leh₂p-* (PSl. **lápa*, Lith. dial. *lópa*) and **lop-* (> OCS *lopata*, Lith. *lāpas*), but this seems like an ad hoc solution. Latv. *lēpa* ‘paw’ proves that we are indeed dealing with the lengthened grade (**ē*) rather than a root in laryngeal.
5. PSl. **lípa* (a) ‘lime-tree’ (Russ. *lípa*, Cz. *lípa*, Pol. *lipa*, Croat. *lipa*, Bulg. *lipá*, Slov. *lípa*, Derk.: 279, ESSJa XV: 114–116), identical to Lith. *líepa*, Latv. *liēpa*. These words can be derived from the PIE root **leyp-* ‘smear, glue’ (Skt. *limpáti*, Lith. *lipti*, *limpù*).

The semantic connection is in the sticky juice of the lime-tree. We may want to posit the original thematic noun **loypos* ‘glue’ (PSl. **lēpō* (c), cf. CSl. *lēpō*, Cz. *lep*, Croat. *lijêp*, Derk.: 273), and a BSl. *Vṛddhi* derivative **lēypos* ‘sticky’, substantivized as **lēypā* ‘sticky one’ > ‘sticky tree’.

6. Lith. *lúobas* ‘bark’, Latv. *luobas* ‘id.’; these may represent *Vṛddhi* derivatives of the root **lewb^h-* / **lub^h-* > Goth. *laufs* ‘leaf’, Lith. *lubà* ‘plank’, Latv. *luba* ‘linden bark’, Lat. *liber* ‘bark’, perhaps also in ORuss. *lōbō* ‘front of the head, skull’. A Slavic parallel **lúbō* (with the acute) is found in Croat. dial. *lūb* ‘bark’ (Vodice, Istra), *lūba* ‘lump’ (Istra, Rijeka), Russ. *lúb* (G sg. *lúba*). Standard Croat. *lūb* (G sg. *lúba*) points to the circumflex. If we start from PIE **lowb^ho-* ‘bark’, the BSl. *Vṛddhi* formations may represent **lāuba-* ‘(made of) bark’ > Lith. *lúobas* and PSl. **lúbō*.

7. PSl. **pálica* ‘stick, staff’ (OCS *palica*, Russ. *pálica* ‘club’, Cz. *palice* ‘baton’, Croat. *pálica*, Derk. 390) vs. PSl. **políca* ‘shelf’ (CSl. *polica*, Russ. *políca*, Cz. *police*, Croat. *pòlica*, Derk. 410), cf. also Russ. *pol* ‘floor’ (< **plank*) < PIE **(s)pol-* ‘plank, staff’ (OÍc. *fjōl* ‘plank’, Latv. *spals* ‘handle’, perhaps also Skt. *phálakam* ‘plank’). Another *Vṛddhi*-derivative could be PSl. **pálbcv* ‘finger’ (CSl. *palbcv*, Russ. *pálec*, Cz. *paléc* ‘thumb’, Croat. *pālac* ‘thumb’, Derk.: 390), which has been related to Lat. *pollex* ‘thumb’; the derivational relationship might exist between **polo-* (> PSl. **polō*) ‘staff, plank’ and **pōlo-* (> **palica*, perhaps **palbcv*).

8. PSl. **pítja* (a) ‘nourishment, food’ (OCS *pišta*, Russ. *píščā*, Croat. dial. *pīća*, Cz. *píce* ‘fodder’, Derk.: 401) < PIE root **peyt-* (Lith. *piētūs* (N pl.) ‘dinner’, OÍr. *ithid* ‘eats’, Skr. *pitú-* ‘nourishment’). Derksen’s (1996) assumption that the acute is due to the contamination with the root **peyH-* (Skt. *pīvan-* ‘fat’) is ad hoc.

9. Latv. *siēva* ‘wife’ vs. OHG *hīwo* ‘husband’, Lat. *cīvis* ‘citizen’ and Skt. *śívā-* ‘dear’; further connections to the root **k’ey-* ‘lie’, or the deictic particle **k’i-* ‘this, here’ are possible, but rather speculative. We might posit a derivational relationship between **k’ey-wo-* ‘local, member of the local community’ (DV: 116) and **k’ēywo-* ‘belonging to the local community, own’ > ‘(own) wife’.

10. PSl. **sláva* (a) ‘glory’ (OCS *slava*, Russ. *sláva*, Croat. *slàva*, Cz. *sláva*, Pol. *śława*, Derk.: 453), Lith. dial. (Žemaitian) *šlòvė*. As Pronk (2012: 18–19) points out, many (but not all) derivatives from the root **k’lew-* in Balto-Slavic are acuted, so one must count with the possibility that a laryngeal was added to that root as a dialectal innovation. In Lith. *kláusti* ‘ask’ the laryngeal may be a part of the desiderative suffix **-Hs-*, and this may also be the source of the acute in PSl. **slúšati* ‘listen’ (OCS *slušati*, Russ. *slúšat*, Croat. *slūšati*, Pol. *śłyszec*, Derk.: 455), **slýšati* ‘listen’. Note, however, Latv. *klàust* ‘ask’ without the acute, pointing to the conclusion that the acute in Lith. *kláusti* is secondary, as assumed by LIV. It may have been introduced to avoid homophony with *klausýti* ‘listen’, where the root is not acuted, cf. 3 sg. pres. *klaūsė* ‘he listened’ vs. *kláusė* ‘he asked’. BSl. **k’lowo-* ‘fame’ (East Lith. *šlāvė*, *šlavė*, Latv.

slava, *slave* ‘fame’, unless these were influenced by *-a-* in Slavic cognates) vs. **k’lōwo-* ‘having fame’ >> **k’lōwā* > PSl. **sláva* ‘famous deeds, glory’.

11. Lith. *srovė* (1) ‘stream’ (besides *srovė* (4), both forms in LKŽ): this might be a *Vr̥ddhi* formation derived from the same root as Lith. *sraūja* ‘stream’ (OCS *struja*, Croat. *strúja*, Russ. *strujá*, etc., Vasm. III: 32–33), from PIE **srew-* ‘flow’ (Skr. *srá-vati*, Gr. *rhéō*, etc.). We might posit a derivative **srōwo-* ‘flowing (water)’ opposed to **srowo-* ‘flow’ (Gr. *rhóos*, Skt. *srāva-*, OCS *-strovъ* in *ostrovъ* ‘island’), but the problem is that the evidence for the acute intonation in Lithuanian is scant. Derksen (1996: 59) considers this to be an instance of *métatonie douce* and derives *srovė* (the only form he cites) from the root of *srúti* ‘flow’. However, there is no evidence for a laryngeal in the root **srew-*.

12. PSl. **tq̇ča* (a) ‘(snow-)storm’ (Russ. *túča* ‘dark cloud’, OCS *tq̇ča* ‘snow-storm’, Croat. *tūča* ‘hail’, Vasm. III: 158–159), derived from the same root as Lith. *tánkus* ‘thick’, Skr. *tañc-* ‘be solid’, MHG *dīhte* ‘thick’. The acute in Balto-Slavic seems to point to *Vr̥ddhi* (**tānk-jā* > PSl. **tq̇ča*). LIV reconstructs the root as **temk-* because of Hitt. *tamekzi* ‘fixes’.

13. PSl. **ú(s)tro* (a) ‘morning’ (OCS *utro*, Russ. *útro*, Pol. *jutro*, Croat. *jǔtro*) may be a *Vr̥ddhi* formation build on the same root as Lith. *aušrà* ‘dawn’ (PIE **h₂ewsōs* > Gr. Hom. *ēōs*, Lat. *aurōra*, etc.).

14. Lith. *vilkė* ‘she-wolf’. Pronk (2012) justly points out that this cannot be an old formation because of its fixed initial acute in light of Skt. *vr̥kí*. Precisely: if this is an instance of *Vr̥ddhi* with respect to Lith. *vilkas* ‘wolf’, it has to belong to a younger stratum, cf. also Lith. *žùikė* ‘she-hare’ vs. *žuikis* ‘hare’. It probably belongs to the same Balto-Slavic stratum as the following item.

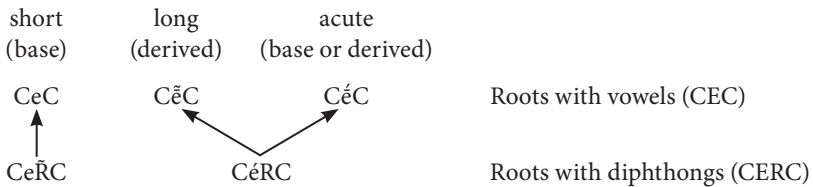
15. PSl. **vorna* ‘crow, *corvus corone*’ (Russ. *voróna*, Bulg. *vrána*, Croat. *vràna*, Cz. *vrána*, Vasm. I: 229) and Lith. *várna* appear to be a *Vr̥ddhi* formation with respect to PSl. **vornъ* ‘raven, *corvus corax*’ (Russ. *vóron*, OCS *vranъ*, Croat. *vrân*, Cz. *vran*, Vasm. I: 228) and Lith. *vařnas*. The similarity with Gr. *kóraks* ‘raven’ and *korónē* ‘crow’ is probably accidental, and does not testify to the difference of suffixes (masc. *-no-* vs. fem. **-Hno-*). In Baltic (though not in Slavic) this pattern of opposing masculines to feminines derived from the same root must have been productive, cf. Lith. *šėřnas* ‘wild boar’ vs. *šėřnė* ‘wild sow’, *ántis* ‘duck’ vs. *añtinás* ‘drake’, cf. Petit (2004: 174–176).

16. PSl. **žėtva* ‘harvest’ (OCS *žetva*, Russ. *žátva*, Cz. *žatva*, Croat. *žětva*, Cz. *žatva*, Vasm. I: 411) vs. **žėti* ‘reap, mow’ (OCS *žeti*, Croat. *žėti*), Lith. *genėti* ‘prune, hem’, Derk.: 561. The PIE root is **g^{wh}en-* ‘strike’ (Hitt. *kuenzi*, Skt. *hánti*, Gr. *theinō*). The unexpected acute of **žėtva* may be the result of the BSL. derivation process: **gentwo-* ‘striking, mowing’ >> **gēntwo-* ‘(time) of the mowing’ > ‘harvest’.

Any objective discussion of this material would have to admit 1) that the instances of acuted lengths in possible *Vr̥ddhi* derivatives are not numerous, 2) there are very few exact lexical cognates in Baltic and Slavic (**vorna* and *vārna*, **sláva* and *šlòvè*, **lápa* and **lópè*, **lípa* and *líepa*), and 3) as noted by Petit (2004: 179ff.), most of the examples of alleged BSl. *Vr̥ddhi* do not involve long vowels, but rather diphthongs opposing acute intonation to the circumflex. The explanation of this opposition offered by Petit (2004: 180–181) for Baltic might work for Balto-Slavic as well:

En d'autres termes, un degré long morphologique [ē] peut avoir en baltique, dans les voyelles, une existence distincte à la fois du degré bref [e] et du degré long d'origine glottale [é], tandis que, dans les diphtongues, un degré long morphologique ne peut se distinguer du degré bref, s'il aboutit à une intonation douce [ēř], ou du degré long d'origine glottale, s'il aboutit à une intonation rude [ér]. Il me semble que, dans ces conditions, l'économie du système favorise l'assimilation du degré long morphologique plutôt au degré long d'origine glottale (d'où [ér] dans les deux cas) qu'au degré bref (d'où [ēř] dans les deux cas) : cette dernière hypothèse empêcherait toute possibilité d'un degré long morphologique distinct du degré bref, dans les radicaux à diphtongue du baltique.

Here is how we can represent this development:



If this is correct, then the acute, e.g. in Lith. *líepa* and PSl. **lípa* does not imply a proto-form **léypā*; rather, the derived form **léypa*- 'sticky' was opposed to the base form of the root **leyp-* / **layp-* 'glue'. After this pattern, the association of the acute with the derived morpheme was transferred to proper vowels, so that the pattern **a* (base) : **á* (derived) was established, e.g. in PSl. **lopa* vs. **lápa*, or **polica* vs. **pálica*.

5. Root nouns with lengthened grade in Balto-Slavic?

Most root-nouns in BSl. with cognates in other branches of IE are *i*-stems, cf. OCS *myšb* 'mouse' vs. Lat. *mūs*, *mūris*, OCS *noštʙ* 'night', Lith. *naktis* vs. Lat. *nox*, *noctis*, etc. (Larsson 2001).

In some original *i*-stems we have the lengthened grade in BSl., and the root vowel is regularly non-acuted; however, in words belonging to AP (c) the acute may have been eliminated by Meillet's law. Here is a tentative list of Slavic *i*-stems that should be derived from earlier root-nouns.

1. PSl. **dalb* ‘distance’ (Russ. *dal*, Pol. *dal*, Croat. *dâlj*, ESSJa IV: 186–7), from the root of **dbliti* ‘last’ (Russ. *dlít’sja*, Cz. *dlíti*, Derk.: 133). The connection with PIE **dlh_gh^o-* ‘long’ (Skr. *dirghá-*, Gr. *dolikhós*) is possible, but uncertain.
2. PSl. **granb* ‘edge, boundary’ (Russ. *gran*, Pol. *grań*, Vasm. I: 304) and **grana* ‘branch’ (Croat. *grána* ‘branch’, ULus. *hrana* ‘edge’, ESSJa VII: 106–107); the lengthened grade points to the vocalism of the Nom. sg. (PIE **grōn-*); the *o*-grade is preserved in OHG *grana* ‘beard’, and the *e*-grade in OIr. *grend* ‘beard’.
3. PSl. **rěcb* (c) ‘speech’ (OCS *rěcb*, Russ. *reč*, Pol. *rzecz* ‘thing’ Croat. *rijěč* ‘word’, Derk.: 434). From the root of **rekti* ‘say’ (OCS *rešti*, Croat. *rěci*, etc.).
4. PSl. **mēlb* (beside **mēlv*) ‘sand bank’ (Russ. *mél*, SerbCSL. *mēlv* ‘chalk’, Pol. *miel* ‘shallow water’, Vasm. II: 115), Lith. *smēlis*, *směl̃ys* ‘sand’, cf. also Germ. dial. *māle* ‘der feine Staub der Landstrassen’ < **mēl-* and ON *melr* ‘sand bank’ < **mel-*.
5. PSl. **tvarb* (c) ‘creation, creature’ (OCS *tvarb*, Russ. *tvar*, Pol. *twarz* ‘face’, Croat. *tvâr*), parallel to Lith. *tvorà* ‘fence’. The same root is attested in **tvorō* ‘creation’ with the full grade.
6. PSl. **žalb* ‘grief, pity’ (OCS *žalb* ‘tomb’, Russ. *žal*, Pol. *żal*, Croat. *žào*, Derk.: 554), Lith. *gėlà* ‘acute pain’, from the root of OHG *quāla* ‘violent death’ (< **g^wēlH-*) and OIr. *at-baill* ‘dies’ < **g^welH-* (IEW: 471).

However, we also find some *ā*-stems that are good candidates for root-nouns,³ cf. OCS *gora* ‘mountain’ vs. Lith. *girià* (2) ‘wood’ < PIE **g^worH-* (Skt. *girí-* ‘mountain’). These do not appear to have direct cognates in Baltic. Some such *ā*-stems show the long vowel in the root syllable. Here is a tentative list:

1. PSl. **travā* (b) ‘grass’ (OCS *trava*, Russ. *travá*, Croat. *tráva*, Cz. *tráva*, Derk.: 496) < PIE **trewH-* ‘rub, spend’ (Gr. *trýō* ‘wear down, exhaust’, OCS *tryti* ‘rub’, Lith. *trūnėti* ‘spoil, putrefy, decay’, LIV **trewH-*). Perhaps **trava* is a deverbal formation based on **traviti* (b) ‘digest, feed with grass’ (Russ. *travít* ‘exterminate by poisoning’, Pol. *trawić* ‘digest’, Croat. *tráviti* ‘feed with grass’), rather than vice versa as assumed by Derk.: 496. In its turn, **traviti* is an intensive/iterative of **truti* ‘feed+’ (OCS *natruti*, ORuss. *truti* ‘consume’, Pol. *truć* ‘poison’), and Slavic intensives/iteratives regularly have the circumflex root (cf. PSl. **daviti* ‘suffocate’, Russ. *davít*, Croat. *dáviti* < PIE **d^hōh₂u-*, ESSJa IV: 198–199, Derk.: 97), PSl. **dirati* ‘touch’ (Croat. *dirati*, originally an intensive formation from the same root as **derā*, **dbrati*).
2. PSl. **děra* ‘crack, hole’ (ORuss. *děra* ‘opening’, Cz. *díra* ‘hole’, ESSJa V: 12), from the root **der-* ‘flay’ (OCS *dbrati*, Lith. *dir̃ti*, Gr. *dérō*).

³ See Matasović (2014: 21–24).

3. PSl. **dira* ‘crack, hole’ (OCS *dira*, Russ. *dirá*, Croat. dial. *dira*, Derk.: 107, ESSJa V: 30–31); from the root **der-* ‘flay’. The AP cannot be determined.
4. PSl. **kara* ‘punishment’ (Russ. *kára*, Pol. *kara*, Croat. *kára*, ESSJa IX: 151); derived from the root of **karati* ‘punish’ (Russ. *karát*, Pl. *karać*, Croat. *kárati*), which is from **koriti* (Croat. *kòriti* ‘reproach’).

In Baltic, we find several \bar{a} -stems with long non-acuted vowel, e.g. Lith. *lomà* (2/4) ‘hollow’, *bylà* ‘case, speech’, *gèlà* ‘pain’, etc. Pronk (2012: 9) thinks these are best derived from old collectives. However, this type is very rare in other IE languages. Pronk cites only Lat. *cella* (derived by ‘littera-rule’ from **cēla*, from PIE **k’el-* ‘hide’, cf. OIr. *celid*), which he thinks is the regular development of the collective **k’el-h₂* > **k’ēl-h₂*, with a “regular” lengthening in monosyllables. I find this too speculative, not only because there are too few lengthened grade \bar{a} -stems in other IE languages (even *cella* could represent **kelsā* or **kelnā*, among other things), but also because the lengthening in monosyllables is not a sound law established beyond doubt.

Larsson (2004ab) points out that the long circumflex vowel in Lithuanian \bar{e} -stems is often the result of a retraction from the following syllable (**VC-íyā* > $\bar{V}:C-iyā$). This pattern was extended analogically to many \bar{a} -stems, which are often parallel formations to \bar{e} -stems, with little difference in meaning, cf. Latv. *tvāre* ‘fence’ vs. Lith. *tvorà* ‘id.’ (from *tvérti* ‘close’), Lith. *bégē* ‘run’ vs. Lith. *begà* ‘id.’ (from *bégti* ‘run’), Lith. *piovē* ‘cutting’ vs. *piovà* ‘id.’ (from *piáuti* ‘cut’), Lith. *kōvē* ‘fight’ vs. *kovà* ‘id.’ (from *káuti* ‘strike’), cf. Larsson 2004b: 166.

However, Larsson’s lengthening (and the analogical spread to \bar{a} -stems) will allow us to explain the long vowel in Lith. *lomà*, *tvorà*, etc., but not in Slavic **lam̃* ‘hollow, bend’ (Russ. dial. *lam* ‘wasteland’, Pol. *łam* ‘quarry, bend’, Croat. dial. *lâm* ‘knee-joint, underground passage’, Slov. dial. *lam* ‘quarry’, Derk.: 268), **tvar̃* ‘creature’, etc., since there was no parallel retraction of the ictus in Slavic that would trigger the analogy. The Slavic nouns thus probably represent old root-nouns.

It is also possible that Balto-Slavic preserved a number of root-nouns with lengthened grade in the Nom. sg. and that some such nouns became \bar{a} -stems either in Balto-Slavic, or separately in Baltic and Slavic. In Slavic, these nouns mostly belong to AP c), so it is impossible to establish whether they were originally acuted or circumflexed. In Baltic, long vowels in the root of circumflexed \bar{a} -stems can always be the result of Larsson’s lengthening. Therefore, it is impossible to establish the original accentuation of root nouns in BSl.

6. Conclusion

In our opinion, then, Balto-Slavic *Ṽr̃ddhi* is not inherited from PIE; rather, it is a parallel innovation in word-formation, similar to, but independent of Indo-Aryan and, possibly, PIE *Ṽr̃ddhi*. Nouns that can be characterized as showing Balto-Slavic

Vr̥ddhi regularly have the acute intonation, in contradistinction to nouns that have long vowels inherited from PIE, which are circumflexed. Moreover, the acute, rather than the vowel length, is the primary marker of the Balto-Slavic *Vr̥ddhi* as a process of nominal derivation.

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