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**THE ACCENTUATION OF THE INFINITIVE TYPE
LATV. *kaļt*, SL. **kōlti* AND THE DEVELOPMENT OF
INDO-EUROPEAN *molō*-PRESENTS IN BALTO-SLAVIC**

1. Building on earlier work by Dybo (1981, 233ff.), Rasmussen (1985[1999], 184ff.) has argued convincingly that the Balto-Slavic infinitive was originally accented on the ending. Root or suffix accentuation would in principle reflect the effects of Hirt's law. After a brief discussion of the evidence supporting this reconstruction (§ 2–4), in this article I will deal with apparent exceptions to the general rule.

2. The Baltic evidence is basically restricted to Latvian. Lithuanian has generalized root accentuation for all infinitives (*nėšti* “carry”, *gėrti* “drink”, *dúoti* “give”, etc.), except where it shifted to the following syllable according to Saussure's law (e.g. *darýti*, *dāro* “make” vs. *mókyti*, *móko* “learn”). The Old Prussian facts are more complex and not entirely clear.¹ To judge from examples like *rānctwei* “steal” or *tiēnstwei* “attract”, with non-acute accented root vowel, root accentuation was generalized in primary verbs. Since Saussure's law did not operate in Old Prussian,² suffixal verbs like *laikūt* “hold” (pres. 3 *lāiku*), *giwīt* “live” (pres. 2 sg. *gīwu*), *billīt(wei)* “say” (pres. 3 *billā*), or *turrītwei* “have” (pres. 3 *turri*) have probably retained the old place of stress in the infinitive. Root accentuation, although less frequent, is also attested (e.g. *prei-dīnkaut* “thank”, *schlūsītwei* “serve”, *līgint(on)* “judge”, *smūnint* “honor”).

2.1. The Latvian facts, on the other hand, can hardly be understood otherwise than by assuming original ending accentuation. The vast majority of primary verbs with acute roots show *Dehnton* (reflecting earlier root

¹ See Rinkevičius 2009, 188ff. for a survey of the Old Prussian verb from an accentological point of view.

² Cf. Rinkevičius 2009, 85ff., with references.

accentuation) if they go back to original structures *TR̥H-téi-,³ *TUH-téi- or *TEH-téi- (where the accent was retracted to *TR̥H-tei-, *TÚH-tei-, *TÉH-tei- according to Hirt's law), but *Brechtón* (reflecting earlier ending accentuation) in cases where Hirt's law did not apply, e.g. full grade *TERH-téi- or T(E)(R)D-téi- (with acute intonation due to Winter's law):⁴

- a) *TR̥H-tei-: *buřt* “conjure”, *duřt* “stab”, *dziřtiês* “revere”, *iřt* “row”, *kuřt* “thresh”, *kuřt* “kindle”, *mřt* “step on”, *řkiřt* “strike fire”, *řkiřt* “cut”, *řkiřt* “pluck”, *stuřt* “push”, *trřt* “rub, sharpen”; *TÚH-tei-: *gřt* “grab”, *řt* “swallow”, *skřt* “shave”, *řřt* “sew”; *TÉH-tei-: *duřt* “give”, *mřt* “wave”, *rřt* “scold”, *sřt* “sow”, *spřt* “manage”.
- b) *TERH-téi-: *arřt* “plough”, *celřt* “lift”, *dzeřt* “pierce”, *dzeřt* “drink”, *ķeřt* “seize”, *neřt* “contract”, *peřt* “scorn”, *salřt* “freeze”, *smelřt* “pour”, *speřt* “kick”, *řkelřt* “cleave”, *tveřt* “seize, grasp”, *veřt* “roll over”, *zeřt* “become green”, *zveřt* “overthrow”.
- c) Length due to Winter's law: *ařgt* “grow”, *bęgt* “run”, *ęst* “eat”, *jřgt* “yoke”, *lařzt* “break”, *liřt* “clear”, *miřzt* “swallow”, *piřst* “fart”, *plařst* “wash”, *sęstiês* “sit down”, *řkięst* “scatter”. Without clear evidence supporting the reconstruction of a voiced stop: *ařst* “weave”, *beřzt* “rub”, *brięst* “ripen”, *grięzt* “cut”, *grřst* “push”, *klięst* “spread”, *kliřt*

³ In what follows I will schematically note the Balto-Slavic infinitive suffix as *-tei-. To be sure (as Frederik Kortlandt reminded me at the conference), it is not absolutely certain that Balto-Slavic actually had an infinitive, at least at the early stage of its development when Hirt's law took place. Such a view could find mild support in the different infinitive suffixes of Old Prussian (-twei < *-twei, -t < *-ti?), on the one hand, and East Baltic and Slavic, on the other (Slavic continues *-tēi or *-tei; it is at present unclear to me whether we have to assume two or three variants *-tēi, *-tei, *-ti for East Baltic, as per Endzeli in 1923, 710 or Stang 1966, 447f., or whether we can do with a single inherited ending *-tēi or *-tei, as per Otrębski 1956, 243). This argument is not conclusive. Much more variance is found, for instance, in ancient Greek, a language that nevertheless had an infinitive. The close resemblance of the Baltic and Slavic infinitives can hardly be due to chance and rather points to common inheritance.

⁴ To be sure, the possibility can hardly be excluded that the intonation of the infinitive has been systematically adapted to that of the present and/or preterit (as in *duřt* for dial. *duřt* after pres. *duřdu*). This seems to be the position of Stang (1966, 472). The distribution we find, however, is consistent enough to assume, at least as a reasonable working hypothesis, that the Latvian infinitive directly reflects the place of stress of the Balto-Slavic infinitive. Latvian data are taken from Endzeli in 1923, 555ff.

“make a mistake”, *rũgt* “ferment”, *spiẽst* “press, squeeze”, *spriẽst* “stretch, decide”, *sviẽst* “throw”, etc. With old lengthened grade perhaps *smiẽtiẽs* “laugh”.

2.2. Although the Latvian facts are, in general terms, almost surprisingly clear, we have a number of exceptions. Cases with unexpected *Dehnton* will be discussed below. Cases with unexpected *Brechtton* are more numerous. As observed by Rasmussen (1985[1999], 189), they can easily be explained by a tendency of the *Brechtton* to expand beyond its original domain (or, alternatively, by an earlier tendency towards mobility, which would yield the same result):

*TUH-tei-: *bũt* “be”, *dzũt* “recover”, *liẽt* “pour”, *lũt* “rain”, *mĩt* “exchange”, *vũt* “twist” (contrast Sl. **byĩti* “be”, **zĩti* “live”, **lĩti* “pour”, **vĩti* “twist”); *TEH-tei-: *blẽt* “bellow”, *dẽt* “suck”, *jãt* “ride”, *klãt* “cover”, *stãt* “stand up” (contrast Sl. **stãti*); *TŅH-tei-: *pĩt* “braid”, *tĩt* “twist, envelop”;⁵ *TRH-tei-: *viũt* “deceive”, *virũt* “boil”; *T(R)EHT-tei- (?): *diẽgt* “sting”, *plẽst* “tear”, *sprãgt* “burst, blossom”, *sãkt* “begin”, *glẽbt*, *glãbt* “save”, *slẽgt* “close”.⁶

It is important to emphasize that the intonation of these infinitives *must* be secondary under any theory of the Balto-Slavic infinitive (if the accent was originally on the ending, it should have been retracted according to Hirt’s law; if it was on the root, there was no reason for it to shift to the ending).

Verbs in *-aut* (Lith. *-ãuti*) present both intonations, e.g. *bļaũt* “bleat”, *kaũt* “fight”, *maũt* “swim, submerge” vs. *plãũt* “cut, mow”, *splãũt* “spit”, *šãũt* “shoot”. It is unclear to me whether *bļaũt*, *kaũt*, etc. reflect the same expansion of the *Brechtton* or are rather to be explained in a different way.⁷ This class has been strongly regularized in (East) Baltic and it

⁵ As Rasmussen observes (*loc. cit.*), Slavic **pẽti*, **tẽti* (< **penH-tẽi-*, **tenH-tẽi-*), suggest that *pĩt*, *tĩt* (Lith. *pinti*, *tinti*) have secondarily adopted their zero grade from the present (Lith.) *pina*, *tina*, but have preserved the original place of stress.

⁶ The prehistory of most of these verbs is somewhat obscure and it is not absolutely certain that they actually contained a laryngeal. Thus, I am not sure that *Latv. diẽgt* (: *Lat. figere* “fix in, fasten”) must be connected with TB */tsaka-/* “bite” (so Ringe 1988–90, 71), *Latv. slẽgt* need not be related to Gk. *λώβη* “insult” (cf. Ragot 2002), *Latv. plẽst* may continue **plẽk-* (as recognized in LIV, 484), etc.

⁷ For instance, **b^hleuH-tẽi-* (*bļaũt*) vs. **pjaHu-tẽi-* > **pjaHu-tei-* (*plãũt*) by regular sound change (see below § 8.3), but Sl. **bl’ovãti* “vomit” suffices to cast some doubts on the reconstruction of a Balto-Slavic infinitive **b^hleuH-tẽi-*.

cannot be excluded that the double accentuation in part reflects a complex morphological prehistory.

3. We can now turn to Slavic, where the accentuation of the infinitive is best studied in relationship to the accentual paradigm of the present.⁸

3.1. Verbs with a mobile present (Accentual Paradigm *c*) strongly confirm the picture that emerges from Latvian. The clearest piece of evidence is provided by a small group of full grade infinitives to *TERH-roots with accent on the ending: *žerti “swallow, devour”, *derti “tear” (?),⁹ *sterti “stretch”, *perti “lean”,¹⁰ probably *pęti “expand”, *tęti “cut”, which are ambiguous between full and zero grade (pres. *žbrq, *žbretb, etc.). As correctly observed by Dybo (1981, 251), the final accent of *žerti, etc. can only be understood if the accent originally stood on the ending and was not retracted in full grade *g^werH-téi-.

The accentuation of other infinitives to mobile presents is fully predicted within this reconstruction. We have final accent in roots without a laryngeal (*merti “die”, *nesti “carry, bring”, etc.), root accentuation in original structures *TUH-téi- > *TÚH-tei- (*býti “be”, *píti “drink”, etc.), *TEH-téi- > *TÉH-tei- (*znáti “know”, *dáti “give”, etc.), and suffix accentuation in verbs in *-aH-téi- > *-áH-tei- (*bvráti, *blějǎti “bleat”, etc.).

An exception is constituted by a small group of root-accented infinitives with roots that did not contain a laryngeal: *grýzti “gnaw”, *strěci “twist”, *mėlzi “milk”, *pręsti “extend” (with length due to Winter’s law), *sěci “cut” (with old lengthened grade).¹¹ As per Dybo 1981, 254f., *grýzti, etc. almost certainly reflect an analogical root stress in stems with acute

⁸ Reconstructions of Slavic accentual paradigms are taken from Dybo 1981, 203ff.

⁹ The inclusion of *derti in the list is problematic. As argued by Praust (2000), all diagnostic evidence indicates that *der- “tear” was an *aniř*-root. In Balto-Slavic, on the other hand, we find both circumflex and acute intonation.

¹⁰ But see below § 9.2.2 on this verb.

¹¹ Dybo also includes here *pǎsti “pasture”, *klǎsti “put”, but *pǎsti can be regularly derived from a Balto-Slavic infinitive *paHs-téi- > *pǎHs-tei- (cf. OLith. *pósėti*, *pósa* “worship”, with unexpected root accentuation in a verb with second stem in -ė-). The prehistory of *klǎsti is more problematic, but Lith. *klóti*, Latv. *klāt* “cover” suggest a Balto-Slavic infinitive *klaH-téi- > *klǎH-tei- (the Latvian *Brechtón* is clearly secondary).

intonation of the root. Dybo further plausibly considers *sterci “guard” (: Lith. *sérgẽti*, *sér̃gmi* “id.”) a more archaic form that somewhat managed to escape this analogy. The secondary character of the root accent of Sl. *grȳzti, *mēlzti, etc. is confirmed by the Brechton of Latv. *graũzt* “gnaw”, *mĩlzt* “swell”, *spr̃iēst* “stretch, press”.

3.2. Infinitives of verbs with an immobile present (Accentual Paradigms *a* / *b*) show a partially different picture.

Root verbs with circumflex intonation (Accentual Paradigm *b*) show ending accentuation (*jēti “take”, *žēti “press, squeeze”, etc.) except where it should have been retracted according to Hirt’s law: *tǔrti “rub”, *žǔrti “sacrifice”, *dǔti “blow”, probably also *žē̃ti “harvest”, *mē̃ti “crush” (if from zero grade *mǔH-téi-, cf. Latv. *mūt* “trample”). The only exception is the small group of *kõlti “pierce”, *mē̃lti “grind”, etc. (: Latv. *kaĩt*, *maĩt*), to be discussed below.

Verbs with acute intonation (Accentual Paradigm *a*), on the other hand, show columnar root accentuation except where the accent could have been advanced according to Dybo’s law (e.g. *sovāti “shove”, pres. *sūjǫ, *lecĩ “lie down”, pres. *lǣǫ, with acute intonation no doubt analogical to that of *sē̃sti, *sǣǫ “sit down”). Root accentuation occurs not only in structures where Hirt’s law should have applied (*mýti “wash”, *znāti “know”, etc.), but also in verbs whose acute intonation is not due to a laryngeal (*sē̃sti “sit down”, *pāsti “fall”).

Suffixal formations regularly accent the root in Accentual Paradigm *a*, the suffix in Accentual Paradigm *b* (e.g. *výknǫti “get used to” vs. *to(p)nǫti “sink, drown (intr.)”, *plākati “cry, weep” vs. *p̃sāti “write”, *stāviti “place, put” vs. *nosīti “carry, bear”).

4. As far as I can see, these facts can be interpreted in three possible ways:

- a) Slavic continues the Balto-Slavic distribution: immobile paradigms had root accentuation in the infinitive, mobile paradigms had ending accentuation. This is basically Dybo’s position.
- b) The Balto-Slavic infinitive was always accented on the ending except where Hirt’s law applied. This is continued in the Slavic Accentual Paradigms *c* and *b*. In Accentual Paradigm *a* we have secondary root accentuation in the infinitive. This is basically Rasmussen’s position.

- c) The Balto-Slavic infinitive was always accented on the ending except where Hirt's law applied. Slavic generalized root accentuation in immobile paradigms. Ending or suffix accentuation is due to Dybo's law.

I provisionally favor assuming ending accentuation for Balto-Slavic (scenarios *b* or, perhaps more likely, *c*). The Latvian facts are fully consistent with such a reconstruction, whereas the analogy we have to assume for Slavic seems perfectly reasonable. Notice, in addition, that the infinitives of Slavic verbs belonging to Accentual Paradigm *c* cannot be characterized as *enclinema*, but had a real final accent (as Olander [2009, 178] observes, unaccented **der(H)ti* would yield Štokavian †*drijeti*, not the actually attested *drijèti*). It must be recognized, in any case, that the issue clearly deserves a thorough study.

5. As we have seen, most exceptions to the original accentuation of the infinitive in Latvian and Slavic can be subsumed under two major principles: a tendency to extend mobility in Latvian, and a tendency to acquire root accentuation for verbs with acute intonation in Slavic. The original place of stress is frequently preserved in one of both branches (Sl. **bŷiti* vs. Latv. *bût*, Latv. *spriēst* vs. Sl. **pręsti*, etc.). We are left with a limited number of exceptions that do not easily enter into these explanatory schemas, all of them with full grade and unexpected root accentuation. Rasmussen (1985[1999], 184ff.) establishes the following groups:

- a) *o*-grade verbs with original root accentuation in both Baltic and Slavic: Latv. *kaļt* “forge” / Sl. **kōliti* “pierce”, Latv. *bārt* “scold” / Sl. **bōrti* “pierce”, Latv. *maļt* “grind” / Sl. **mēliti* “grind” (*e*-grade!), Latv. *kārt* “hang up”, Sl. **pōrti* “unstitch”, **pōliti* “stir, fan, scoop”, **pōliti* “blaze”. All Slavic verbs have a *je*-present belonging to Accentual Paradigm *b* (**koljō*, **koljēb*; **borjō*, **borjēb*, etc.). In Baltic we have simple thematic presents in Lithuanian (*kāla*, *bāra*, etc.), but *ia*-presents in Latvian (*kaļu*, *baru*).
- b) Slavic verbs with infinitive in **ōŷiti* (< **ōeHu-tēi-*): **kūiti* “forge”, **rjūiti* “roar”, **snūiti* “warp”, **trūiti* “feed”, **žūiti* “chew”. They are paired with a simple thematic present belonging to Accentual Paradigm *c* (**kōvō*, **kovetb*; **trōvō*, **trovetb*, etc.).
- c) Some Latvian verbs with *e*-grade and *Dehnton*: *bērt* “scatter”, *sērt* “arrange corn for drying”, *veņt* “vomit”, *vērt* “pierce, string; open,

close”, *vērtiēs* (dial.) “look”. They are all paired with *ia*-presents (*beŗu, seŗu*, etc.).

6. We will return to the types Sl. **kǔti* and Latv. *sērt* below (§§ 8, 10). The type Latv. *kaļt* / Sl. **kǒliti*, the only one attested in both branches, cannot be separated from the broader issue of *o*-grade primary verbs like OCS *bosti* “stab”, *kopati* “dig”, Lith. *kàsti* “dig”, *karšti* “card”, *plàkti* “beat”, Go. *graban* “dig”, *gaggan* “go”, *stautan* “push”, etc., usually expressing some type of violent or iterated activity. Cognates in other languages present *-o-*, *-e-* or zero grade of the root (e.g. OCS *bosti* ~ Lith. *bèsti* “stick”; Lith. *karšti* ~ OHG *scerran* “scratch”; Go. *graban* ~ Latv. *grebt* “scrape, excavate”, etc.). As is well-known, there are two main approaches to the origin of this type:

- a) *o*-grade verbs like OCS *bosti* go back to a reduplicated formation with strong *o*-grade of the root, be it an intensive (**g^{wh}én-g^{wh}on-ti* / **g^{wh}én-g^{wh}n-ŋti*, Ved. *janghanti* “strikes violently”) or a reduplicated present (**d^hé-d^hoh₁-ti* / **d^hé-d^hh₁-ŋti* > Ved. *dádhdāti* “put”, WGmc. **dōn* “make, do”). *e*-grade variants like Lith. *bèsti* would continue the primary verb from which they were originally derived. First proposed by Stang (1942, 39ff.), this was the standard approach until very recently (it is the one applied in the LIV).¹²
- b) According to Jasanoff (2003, 70ff. and *passim*) verbs like Hitt. *mall(a)-h₂hi*, Lith. *màlti*, OIr. *melid*, Lat. *molō* go back to a class of root athematic presents (“*molō*-presents”) characterized by acrostatic *-ó/-é-* ablaut and perfect-like endings (**mólh₂-e(i)* / **mélh₂-ŋs* “grind”). *molō*-presents were part of the lexical composition of the Indo-European “*h₂e*-conjugation”, a conjugational type directly preserved in the Anatolian *h₂hi*-conjugation. In other languages *h₂e*-conjugation formations are continued as simple thematic presents or *je/o*-presents.

This is not the place to argue at length my acceptance of Jasanoff’s *h₂e*-conjugation theory. It remains notoriously controversial, but it is my impression that at least the existence of a class of “*molō*-presents” is becoming widely accepted.

¹² See Jasanoff 2003, 66ff., Kümmel 2004, 143ff. for discussion and more references to the secondary literature.

7. Rasmussen (1985[1999], 189ff.; 1989, 226ff.) links the root accentuation of **kólH-tei-* > Latv. *kaĩt* / Sl. **kól̃ti* (for expected **kolH-téi-* > Latv. †*kaĩt*, Sl. †*kolti*) to the apparent *aniṭ*-character of Indo-Iranian intensives to *set*-roots like Ved. *carkarmi*, GAy. *carəkəramahī* “praise” (*set*-root, cf. *s*-aor. *akāriṣam*, abstract *kīrti-* f. “mention, fame”), Ved. *marmartu* RV 2.23.6 “let him crush” (if from **melh₂-* “grind”).¹³ According to Rasmussen (*loc. cit.*), laryngeals were not vocalized in reduplicated formations. In a reduplicated intensive (which he reconstructs as 3 sg. **m̥l̥-mólh₂-ti*, 3 pl. **mél-m̥lh₂-nti*, subj. **mél-m̥lh₂-e-ti*) the outcome would not differ from ordinary laryngeal loss in branches like Indo-Iranian or Greek, but in Balto-Slavic we would still find a contrast between three possible treatments:

- a) consonantal laryngeals, which triggered Hirt’s law (Latv. *šķĩt̃* < **sk̥l̥H-tei-* < **sk̥l̥H-téi-*, *maĩt* < **mólH-tei-* < **molH-téi-* ← **m̥l̥-mólh₂-ti*),
- b) vocalized laryngeals, which did not trigger Hirt’s law (Latv. *šķeĩt* < **skelə-téi-*),
- c) real laryngeal loss, which yielded circumflex intonation (Ru. *kólos*, SCr. *klás* < Sl. **kól̃s̃* “ear, spike” < **kól-so-* < **kólh₂-so-* by Sausure’s effect).¹⁴

Accordingly, *kaĩt* / **kól̃ti*, *bārt* / **bórti*, Sl. **kúti*, **trúti* (< Bl.-Sl. **kāl̃-tei*, **bār̃-tei*, **kāũ-tei*, **trāũ-tei*) are to be derived from reduplicated intensives **k̥l̥-kólh₂-ti*, **b̥h̥-b̥h̥órh₂-ti*, **ku-kóuh₂-ti*, **tru-tróuh₂-ti*, as their root accentuation would otherwise be left without a proper explanation.

The implications of this proposal go well beyond explaining a minor problem of Balto-Slavic accentology. Before presenting a new account of *kaĩt* / **kól̃ti*, I will briefly comment on its Indo-European background.

7.1. *o*-grade primary verbs (“*molō*-presents”). Rasmussen’s account of Latv. *kaĩt*, Sl. **kól̃ti*, **kúti* would provide an almost conclusive argument for original reduplication in verbs like OCS *bosti* “stab”, Lith. *kàsti* “dig” or Go. *graban* “dig” as well, where such an origin is (predictably) not confirmed by independent evidence. Pairs like Latv. *grebt* ~ Go. *graban*

¹³ The etymology of the *hapax marmartu* is disputed, cf. Schaefer 1994, 166f.; Praust 2000, 432²⁴; Kümmel 2004, 144.

¹⁴ Sl. **kól̃s̃* belongs to the Accentual Paradigm *c* and is thus ambiguous as far as the original intonation is concerned. According to Rasmussen 1989, 203, the collective Ru. *kolós’ja* points to a derivational base belonging to Accentual Paradigm *b*.

would thus point to a primary present **g^hrēb^h(-e)-ti* beside an intensive **g^hrēb^h-g^hrob^h-ti* / **g^hrēb^h-g^hrb^h-ŋti* (*vel sim.*) or a reduplicated present **g^hrē-g^hrob^h-ti* / **g^hrē-g^hrb^h-ŋti* (so e.g. LIV, 201).

A general loss of reduplication would not be particularly problematic in Balto-Slavic and Germanic, but *o*-grade primary verbs are also found in languages that do not otherwise show any tendency towards dereduplication, e.g. Latin (e.g. *fodiō, -ere* “dig”, *cūnctor, -ārī* “hesitate”, *lūdō, -ere* “play”) or Greek (e.g. κρούω “strike”, κόπτω “chop”, οἴχομαι “go, depart”, μύλλω “βινέω”, σκύλλω “flay, rend”¹⁵). Nor can this account explain the fact that cognates of these verbs regularly belong to the *h₃i*-conjugation in Hittite (a language that does not show any tendency towards dereduplication either).

The issue cannot be pursued further here, except to observe that deriving *o*-grade primary verbs from reduplicated formations creates extraordinary problems outside of the northern Indo-European languages.

7.2. Non-vocalization of the laryngeals. It is generally accepted that the lack of laryngeal vocalization in Ved. *carkarmi, marmartu* can be explained in two possible ways: 1. loss of laryngeal by Saussure’s effect, 2. loss of laryngeal in reduplicated formations (cf. Schaefer 1994, 107f.; Praust 2000, 432). Rasmussen’s dismissal of the first possibility and his insistence on the fact that *carkarmi, marmartu* reflect a consonantal laryngeal rather than real laryngeal loss is conditioned by his views on Saussure’s effect.

According to Rasmussen (1989, 144–222), Saussure’s effect was conditioned exclusively by a pre-Indo-European consonantal phoneme **/Q/* (> Indo-European **o* or zero), e.g. **h₃lQig-é’- > *lQig-é’- > *loig-ó- > Gk. λοιγός* “ruin, death” (vs. **h₃lig-o- > ὀλιγός* “small, few”). Conversely, no laryngeal loss would have taken place among Indo-European **o* of different origin: 1) “lexical” **-o-* (e.g. **lómə₁-tro-* “bathing-place” > Gk. λουετρόν, MBret. *louazr*),¹⁶ 2) suffixal **-o-* (e.g. **télə₂-mōn* > Gk. τελαμών “strap”), 3) thematic vowel **-o-/*-e-* (e.g. middle participle **-o-mə₁-no-* > Gk. -ο-μενος, with vocalized laryngeal vs. optative **-o-ih₁-t* > Gk. -οι, Ved.

¹⁵ See Vine 1999, 565f. on the phonology of Gk. μύλλω, σκύλλω < **mol[h₂]-jē/o-*, **skol[H₂]-jē/o-*.

¹⁶ The reconstruction of this root as **louh₁-* (rather than **leuh₃-*, e.g. LIV, 418) is seriously compromised by Myc. *re-wo-to-ro-* / *lewotro-*, with still unmetathesized *-eRo-*.

-et, Latv. 2 pl. -iēt, Sl. *-ěte, with consonantal laryngeal), 4) acrostatic *-ó- (e.g. root noun **h₃nóg^{wh}-* “nail” > Gk. ὄνυξ), 5) **o* in ablaut with zero in the perfect, the intensive, and the reduplicated aorist.

The probative force of most of this material, however, is very low. Laryngeal restitution would be most trivial in cases like Nom. sg. **télh₂-mōn* (after weak stem **t_lh₂-mén-*), them. mid. ptcp. **-o-mh₁-no-* (after athematic **-mh₁-no-*), or strong stem **h₃nóg^{wh}-* (after weak stem **h₃nég^{wh}-* or **h₃ng^{wh}-*). There is actually some evidence for laryngeal loss in acrostatic paradigms, e.g. Gk. οὔθαρ “udder” < **h₁ou[H]d^h-* vs. Ved. *údhār* < **h₁uHd^h-* (cf. Nussbaum 1997a, 183f.²⁴, with more examples). The best case for a consonantal realization of the laryngeals is probably the thematic optative, where the lack of vocalization in Greek (**-o-ih₁-t* > **-o-īe-t* > †-οε) and the Balto-Slavic acute intonation (but circumflex in Lith. *te-dirbiē!*) could indeed be explained by positing **-o-ih₁-t* (not **-o-īd₁-t*). Other explanations, however, cannot at present be excluded (e.g. reconstructing a disyllabic **-o.ih₁-*, as per Jasanoff 2009, 52ff.).

As far as reduplicated formations are concerned, Rasmussen’s **m_l-mólh₂-ti* (not **m_l-mól-ti*) is only supported by the accentuation of the Balto-Slavic type *kaĩt* / **kól̥ti* and can thus not avoid the risk of circular argumentation. Some of Rasmussen’s reconstructions are in any case questionable (for instance, an Indo-European reduplicated aorist with **o* / zero ablaut and causative value),¹⁷ and the non-vocalization of laryngeals in the intensive would be curiously in contradiction with their treatment in a reduplicated present like **g̃i-g̃nh₁-e/o-* > **g̃i-g̃n-e/o-*, where Gk. γίγνεται, Lat. *gignit* apparently demand a real laryngeal loss.

All in all, I believe there is reason to view Rasmussen’s account of the

¹⁷ See Harðarson 1997, 97ff.; Kim 2003, 216ff., both with references, for arguments against the reconstruction of an Indo-European causative athematic reduplicated aorist beside the well established reduplicated thematic type **ye-uk^w-e/o-* “said” (Ved. *ávocat*, Gk. εἶπε). Ved. *ájgar* “awoke”, in any case, does not assure an ancient **o* grade of the root. Root anlauting velars are never palatalized in Vedic reduplicated formations, the model being obviously provided by the perfect. Note, incidentally, that *ájgar* RV 1.163.7 belongs to *gar-* “awake”, not to *garⁱ-* “swallow” (cf. Bendahman 1993, 160). There is thus no evidence for laryngeal loss or lack of laryngeal vocalization in the Vedic reduplicated aorist.

type *kaļt* / **kǫliti* with skepticism. We can now return to the Baltic and Slavic material presented in § 5.

8. Type Sl. **kǫti*. In my view, there is no such thing as a problematic Slavic type **kǫti*. In reconstructing a series of Slavic infinitives **kǫti, *rjǫti, *snǫti, *trǫti, *zǫti* (pres. **kǫvǫ, *kovetǫ*, etc.), Rasmussen is following Dybo's reconstruction of Proto-Slavic doublets **trǫti, *trǫvǫ ~ *trovǫti, *trǫjǫ; *kǫti, *kǫvǫ ~ *kovǫti, *kǫjǫ*, etc. instead of traditional **trǫti, *trǫvǫ* and **kovǫti, *kǫvǫ* (Dybo 1981, 205ff.).

Dybo's reconstruction has been strongly criticized by Reinhart (1992, 296ff.; 2003, 151ff.), who observes that Dybo's new grouping of the present and infinitive stems is not really borne out by the facts (e.g. MCroat. *rvǫti, rvǫm*), and, more importantly, that some of the variants in *-uti* are clearly chronologically posterior to the infinitives in *-ovati, -bvati / -bvati: kuti* 16th c. (Pol.) vs. *kovati* 11th c., *snuti* 19th c. vs. *snovati* 11th c., *zuti* 1414 (OCz.) vs. *zǫvati* 12th c. **kǫti, *snǫti, *zǫti* are thus to be deleted from Rasmussen's list. We are left with **r(j)ǫti, *rǫvǫ* and **trǫti, *trǫvǫ*, which conform a small group beside **sluti, *slǫvǫ* "be called, be famous" and **pluti, *plǫvǫ* "swim, sail" to the *aniř*-roots **kǫleu-, *pleu-* (cf. Vaillant 1966, 196ff.).

8.1. Sl. **r(j)ǫti* "roar" (Ru. *revǫt', revǫ*, OCz. *řuti, řevu*, Slvn. *rjǫti, rjǫvem*) is traditionally connected with Ved. *ravⁱ*- "roar" (pres. *ruvǫti*, aor. *arǫvǫt*, intens. *rǫravǫti, rǫruvant-*), Gk. *ǫpǫǫm* "howl, roar", Lat. *rǫmor* "rumour", for which LIV, 306 sets up a root **h₃reuH-*. In Slavic we have a double paradigm *rjuti, reve-* and *ruti, rovo-*, traditionally derived through levelling from an original paradigm **rjuti, *rovǫ, *reve- < *reuti, *revǫ, *revetǫ*. The infinitive **r(j)ǫti* thus stems from **h₃reuH-tǫi-*. Pace Rasmussen (1989, 230) I see no necessity to derive *rev-*, *rj-* from an athematic present and *rov-*, *r-* (as well as the acute of the infinitive) from an intensive. It would be certainly preferable to account for both variants within Slavic itself.

8.2. Sl. **trǫti* (OCS *na-truti, -trovǫ* "feed", ORu. *truti, trovu* "consume") is usually related to CS *tryti, tryje-*, Bulg. *trija*, Maced. *trie* "rub" and, outside of Slavic, with Gk. *trǫǫ* "wear out". But *tryti* has long been suspected to be a specifically Bulgaro-Macedonian renewal of *trǫti, trǫq* "rub" (cf. Vaillant 1966, 300; Koch 1990, 695). In Greek the only ancient-looking form of a

possible root **treuH-* is the perfect τέτρῦμαι “be worn out” Simon.+. The rare and late present τρῦω (S. *Tr.* 124) is almost certainly an inner-Greek coinage (see Nussbaum 1997b for a detailed treatment of this difficult family). A connection between **trúti* and Gk. τέτρῦμαι, although perhaps conceivable, is far from compelling. I thus prefer to follow Reinhart (1992, 311⁸⁶; 2003, 155³⁸) in connecting **trúti* with GAv. aor. *θραοštā*, YAv. perf. *tuθruuiē* “feed”, OHG *trouuen* “grow” (root **treh₁u-* “feed, bring up”, LIV, 647). We can thus start from an infinitive **treh₁u-téi-* > **tr’uti* → **truti* (with analogical depalatalization of the infinitive after the present, as in *pluti*, *sluti*, *ruti*).

8.3. The question that now arises is whether Hirt’s law would have taken place in **h₃reuH-téi-*, **treh₁u-téi-*.

For **treh₁u-téi-* this is certainly the case, as it is by now fairly certain that the sequence **-EHi/u-* triggered Hirt’s law (thus implying a syllabification **-EHi/ǔ-*), cf. Lith. *dieveris* 1, Sl. **děverь* a “brother-in-law” < **deh₂i-uér-* (: Gk. δᾱήρ, Ved. *devár-*), Lith. *piemuō*, acc. sg. *piemenį* 1/3 “shepherd” < **poh₂i-mén-* (: Gk. ποιμήν), Lith. *káulas* 1/3, Latv. *kaūls* “bone” < **keh₂u-ló-* (: Gk. καυλός “stem, pole”), perhaps Lith. *sietas* 1/3 (but Latv. *siēts!*), Sl. **sīto* a (ScR. *sīto*, Ru. *sīto*) “sieve”, if from **seh₁i-tó-*.

As for **h₃reuH-téi-*, it is predictably difficult to find absolutely clear-cut evidence bearing on the behavior of **-Ei/uHT-*, but Lith. *jáunas* 3, Latv. *jaūns*, Sl. **jūnъ* c “young” < **h₂jeu-Hn-ó-* (: Ved. *yúvan-*, Lat. *iuuenis* < **h₂ju-Hon-*) seem to indicate that the sequence **-Ei/uHT-* did not trigger Hirt’s law (i.e., it was treated exactly like **-ERHT-*).

Thus, while **treh₁u-téi-* yielded Sl. **trúti* directly, we expect **h₃reuH-téi-* to have yielded **r(j)uti*. The only suggestion I can offer for **r(j)úti* is that it is analogical to **trúti*, **sluti*, **pluti* (same present stem formation) and has replaced an older zero-grade **rýti* < **HrúH-tei-* < **h₃ruH-téi-*.

9. Type Latv. *kaĩt*, Sl. **kǒlti*. The problems that Rasmussen’s account has to face in an Indo-European perspective have already been examined (§ 7). Within Balto-Slavic it is seriously compromised by the presence of the same phenomenon among *e*-grade verbs like Latv. *sērt*, *veĩt*, *vērt*, Sl. **mēlti*, **pēlti*. Sl. **mēlti* could perhaps be explained by assuming that the primary verb **mēltei* adopted the accentuation of its derivative **máltei*

(Rasmussen 1989, 228) or in some other way,¹⁸ but Latv. *sērt*, *veĩt* would still be left without an adequate explanation.¹⁹

Although the conjunct evidence of Baltic and Slavic may seem to make the reconstruction of Balto-Slavic infinitives like **kólH-tei-*, **bórH-tei-* self-evident, apparently unobjectionable equations like these may easily be deceptive and reflect parallel but independent innovations. In what follows I will argue that verbs of this class displayed inner-paradigmatic ablaut in Balto-Slavic: *o* or *e*-grade in the present, zero grade in the infinitive and aorist. The root accentuation of Latv. *kaĩt*, Sl. **kǒlti* would then pose no serious problem. The accent was regularly retracted in the original infinitive **kǒH-téi-* > **kǒH-tei-*, and it simply remained there when the infinitive was remade as **kólH-tei-*.

9.1. Within Balto-Slavic this reconstruction is supported by the presence of different verbs from the same root, one with *o*-grade, the other with zero grade:

9.1.1. Beside Lith. *kálti*, *kāla*, Latv. *kaĩt*, *kaļu* “forge” (Sl. **kǒlti*, **koljǒ* “stab, sting”: OCS *klati*, *koljo*, Ru. *kolót’*, *koljú*, Cz. *kláti*, SCr. *klàti*, *kǒljēm*, Slvn. *kláti*, *kǒljem*) we have a zero grade verb Lith. *kùlti*, *kùlia*, Latv. *kũlt*, *kulu*, “thresh, beat”. It is important to observe that (Lith.) *kálti* and *kùlti* do not enter into any type of productive derivational process. Accordingly, it is reasonable to derive both verbs from an original (Baltic?) paradigm **kulti*, **kala*, **kulā*, with secondary specialization of meaning.

Baltic and Slavic very clearly point to a *molō*-present **kólH-* / **kǒH-* (← **kólH-* / **kélH-*). Potential *comparanda* outside of Balto-Slavic are problematic: Lat. *per-cellō*, *-culī*, *-culsum* “beat” (of unclear morphology), Gk. κλάω, aor. ἔκλασ(σ)α, athem. ptcp. ἀπο-κλάς (Anacr.) “break off” (formally difficult and not very close semantically: Balto-Slavic and Latin point to “beat”, not to “break”; discussion in Schrijver 1991, 173ff.).

¹⁸ Rasmussen (2004, 274), for instance, suggests that Latv. *maĩt*, Sl. **mǐlti* represent different dereduplications of the intensive **mǐ-mólh₂-ti*, 3 pl. **mél-mǐh₂-ŋti*, a possibility a find inherently less attractive.

¹⁹ Rasmussen (1985[1999], 194f., following Birgit Olsen, p. c.) suggests that frequent use with preverbs gave rise to a consonantal laryngeal in verbs like Latv. *bērt*, *sērt*, *veĩt* or *vērt*. There is hardly any necessity to insist on the *ad hoc* nature of this explanation.

9.1.2. Lith. *bárti*, *bāra*, Latv. *bārt*, *baŗu* “scold”, reflex. Lith. *bártis*, Latv. *bārtiēs* “quarrel” (Sl. **bōrti*, **borjō* (*sę*) “fight”: OCS *brati*, *borjō* (*sę*), Ru. *borót’*, *borjú*, Pol. dial. *bróc się*) can be similarly related to Lith. *bùrti*, *bùria*, Latv. *buŗt*, *buŗu* “conjure” (if from a meaning “notch” *vel sim.*).

The *molō*-present of **b^herH-* is well-known, cf. ON *berja* “smite, beat”, reflex. *berjask* “fight” (< **barjan*), Lat. *feriō*, *-īre* “strike”.

The well-attested Old Lithuanian athematic present *barmi* poses a problem, as *molō*-presents are otherwise continued as thematic presents or *je/o*-presents. I suggest that OLith. *barmi* continues, in the last instance, the middle of a (pre-)Balto-Slavic *molō*-present.²⁰ Notice that cognates of this verb show a remarkable tendency to be used with the reflexive in Slavic (**bōrti* (*sę*) “fight”) and Germanic (ON *berjask* “fight” beside *berja* “smite, beat”), as well as in Baltic itself (Lith. *bártis*, Latv. *bārtiēs* “quarrel”).

9.1.3. The clearest case is that of Lith. *mālti*, *māla*, Latv. *maļt*, *maļu*, Sl. **mēlti*, **meljō* “grind” (OCS *mlěti*, *meljō*, Ru. *molót’*, *meljú*, Cz. *mlíti*, SCr. *mljěti*, *měljēm*, Slvn. *mléti*, *měljem*).

A zero grade past pass. ptcp. **m_h₂-to-* is directly attested in Lith. *miltai* 1, Latv. *mīlti* “flour”. Whether Lith. *su-muldyti* “smash, crush” (Bretkūnas) has any bearing on the original ablaut of the verb “to grind” is less clear to me.

In Slavic Vaillant (1966, 297, 305) mentions as evidence for the presence of zero grade **m_hl-* in the original paradigm of Sl. **mēlti* the imperfective *-mīlati* (SCr. dial. *mīlati*, OCz. *mīlati*), implying a derivational base **m_hl-*, the past act. ptcp. ORu. *iz-m_hl_o* (beside *s_o-molov_o-*), and Pol. *mel-szy*, pret. *mell*, pass. ptcp. *melty*.

Vaillant even goes on to suggest (very reasonably, in my opinion) that the *e*-vocalism of Slavic (in contrast with the *o*-grade of Baltic and Germanic) is secondary, remade on the weak grade **m_hl-* after the model of the type *stolati*, *stelje-*.

9.1.4. To my knowledge, no evidence for an original zero grade can be quoted for the following verbs of the type *kaļt* / **kōlti*:²¹

²⁰ See Jasanoff 2003, 232⁷; Villanueva Svensson 2008, 189 for more possible cases of a Balto-Slavic verb going back to a pre-Balto-Slavic middle.

²¹ I leave out of consideration **pōlti* “blaze” (Slvn. dial. *plati*, Cz. *pláti* 15th c.+), which looks secondary with regards to OCS *-planōti*, Cz. *planouti*, SCr. *plànuti*, etc. (the regular inchoative to the stative OCS *polěti* “flame”), cf. Vaillant 1966, 234.

Lith. *kárti*, *kāra*, Latv. *kārt*, *kaŗu* “hang (tr.)”. Etymologically isolated.

Sl. **põrti*, **porjõ* “unstitch” (Ru. *porõt’*, *porjú*, OPol. *próc*, *porze*, Slvn. *práti*, *põrjem*). A connection with Ved. *píparti* “carry across”, Gk. *πείρω* “penetrate, pierce”, Go. *faran* “travel” (**per-*, LIV, 472) is seriously compromised by the *set*-character of Sl. **põrti*.

Sl. **põlti*, **poljõ* “flap, wave” (Ru. dial. *polót’*, Cz. *pláti*, Slvn. *pláti*, *põljem*). Perhaps related to Gk. *πάλλω* “shake, brandish” (aor. *ἄμ-πεπαλόν*), which can be derived either from a nasal present or from a *ǰe/o*-present.

Sl. **pělti*, **pělvõ* “weed” (OCS *plěti*, *plevõ*, Ru. *polót’*, *poljú*, SCr. *pljěti*, *plijěvēm*, Slvn. *plěti*, *plěvem*). Morphologically and etymologically obscure.

9.2. Traces of original ablaut, on the other hand, are also found among inherited *molõ*-presents that have generalized *e*-vocalism in Balto-Slavic:

9.2.1. Lith. *skėlti*, *skėlia*, Latv. *šķēlt*, *šķeļu* “cleave, split” beside Lith. *skilti*, *skilia*, Latv. *šķīlt*, *šķīļu* “strike fire”.

Clear *molõ*-present, cf. Hitt. *iskalla-^{hhi}* “tear off”, Arm. aor. *ec’el* “rend, split” (< impf. **(e)skelHet*, pres. *c’elowm*), ON *skilja* “divide, separate”, Gk. *σκούλλω* “tear, rend apart” (< **skol[H]-ǰe/o-*), *σκάλλω* “stir up, hoe” (< **skl[H]-ǰe/o-*).

The intonation of Latv. *šķēlt* curiously contrasts with that of *kaĩt*, *bārt*. It is probably analogical to that of the majority of *e*-grade verbs (*ceĩt*, *dzeĩt*, *dzerĩt*, etc.).

9.2.2. Lith. *spĩrti*, *spĩria* “kick” beside Latv. *speŗt*, *speŗu* “id.”, Sl. **põrãti*, **põrõ* “trample” (OCS *-põrati*, *-põrõ*, Ru. *po-prát’*, *-prú*). The intonation of Latv. *speŗt* can be explained in the same way as that of *šķēlt*.

Clear *molõ*-present, cf. Hitt. *išparr(a)-^{hhi}* “trample”,²² Ved. *sphurãti*, Av. *sparaiti* “kick”, perhaps Gk. (*ἄ*)*σπαίρω* “flounder” (nasal present in Lat. *spernõ*, *-ere* “push away, despise”, Gmc. **spurnan*, **spernan* “tread, spurn, kick”).²³

²² See Kloekhorst 2008, 406ff. for the separation of two Hittite verbs *išparr(a)-^{hhi}* “trample” and *išpãr-^{hhi}* “spread out, strew” (: Gk. *σπείρω* “spread”).

²³ **sperH-* “kick” is traditionally considered to be an aoristic root whose root aorist is continued in Ved. *mã ápa spharĩs* “do not kick away” RV 6.61.14, Lat. *sprẽũ* and OCS *-prětv se* (pres. *-põrõ se*, inf. *-prěti se*). But Lat. *sprẽũ* can only be derived from a canonical active root aorist **spérH-t* at the cost of very heavy analogical re-

The apparently clear profile of this root is complicated by Sl. **perti*, **pě̃rǫ* “lean, push, press”, reflex. “lean on” (OCS *-prěti*, *-pě̃rǫ* (*sę*), Ru. *perēt’*, *prú*, SCr. *zā-prijeti*, *zā-prēm*, Pol. *przeć*, *prę*, etc.), which is traditionally derived from the same root **sperH-* “kick”. Because of the parallelism with **žerti*, **žě̃rǫ* ~ **žbráti*, **žě̃rǫ* “swallow, devour” and **derti*, **dě̃rǫ* ~ **dbráti*, **dě̃rǫ* “tear” (to the clear aoristic roots **g^werh₃-*, **der-*) and the apparently attractive equation Ved. *sp̄huráti* = Sl. **pě̃re-* = Lith. *sp̄iria* it is usually believed that Sl. **perti*, **pě̃rǫ* continues the original paradigm (Bl.-Sl. pres. **(s)pirH-é-ti*, inf. **(s)perH-téi-*, aor. **(s)pérH-t*).²⁴ Hitt. *išparr(a)-^{hhi}* suffices to cast serious doubts on such an approach (note, in addition, that the Indo-European pedigree of *tudáti*-presents is very doubtful). In Baltic Lith. *sp̄irti*, Latv. *sp̄ert* present meanings like “lean, press, support, prop (up)”, reflex. “lean on” beside the central meaning “kick (trample, push)”. The possibility can thus not be excluded that Sl. **pě̃ráti*, **pě̃rǫ* and **perti*, **pě̃rǫ* continue two different roots (**(s)perH-* “kick” and an otherwise unknown root **(s)perH-* “lean”) that were kept distinct in Slavic but merged in a single verb in Baltic (a possible parallel will be discussed below §10.4). If, on the other hand, the traditional derivation from a single root is accepted, I see no reason why *pě̃ráti*, **pě̃rǫ* could not continue the original paradigm (it is admittedly unclear how **perti*, **pě̃rǫ* should then be explained, but the same holds true if one derives *pě̃ráti*, **pě̃rǫ* from **perti*, **pě̃rǫ*).

9.2.3. Lith. *srė̃bti*, *srė̃bia*, Latv. *srė̃bt*, *srė̃bju* “slurp, gulp” beside Lith. *s(i)ũr̃bti*, *s(i)ũr̃bia*, Latv. *surbt*, *surbju* “suck, soak”; Sl. **sě̃rbáti*, **serbljǫ* “gulp, swallow” (**serb-*: ORu. *serebati*, *sereblju*, Slvn. *srė̃bati*, Pol. dial. *strzebać*, etc.; **sě̃rb-*: Ru. dial. *serbát’*, Bulg. *sárbam*, OSln. *sr̄bati*, Pol. *siorbać*, etc.).

modeling. As recognized in LIV, 585, *sp̄rēuī* could simple be analogical to *cernō*, *crēuī* “decide”. As for OCS *-prěť* *sę*, it is one of the major achievements of modern Slavic accentology to have demonstrated that the formation of the Slavic root aorist is by and large determined by the accentological properties of the verb, cf. Dybo 1981, 213, 217f. Since *-prěť* is synchronically predicted, it need not be projected back into Indo-European (see below in the text on Sl. **perti*, **pě̃rǫ*). Whether the isolated Ved. *sp̄harīs* (beside better attested pres. *sp̄huráti*) suffices to establish an active root aorist for the parent language is at least open to reasonable doubt. I wonder whether it could not be an *Augenblicksbildung*.

²⁴ See Koch 1990, 445, 703f., followed by LIV, 585f., for a clear presentation of this view.

Clear *molō*-present, cf. Hitt. *šarap-* / *šarip-^{hhi}* “sip”, Arm. aor. *arbi* “drank” (< impf. **srb^het*), Gk. *ῥοφέω*, Ion. *ῥυφέω* “sup up, gulp down”, Lat. *sorbeō, -ere* “suck up”, Alb. *gjerb* “sip, lap”.²⁵

9.2.4. Lith. *kriaūšti, kriaūšia* “prick” beside Lith. *krūšti, krūša* “smash, crush” (Sl. iterat. OCS *sъ-krušiti, -krušq*, Ru. *krušit’*, SCr. *krúšiti* “break”).

Gk. *κρούω* “strike” (< **kroušō*) points to an original *molō*-present.

9.3. The reconstruction of ablauting paradigms **kolH-* / **k_lH-*, **b^horH-* / **b^hγH-*, **skelH-* / **sk_lH-*, **kreus-* / **krus-* for Balto-Slavic raises a number of questions. Before addressing their position in the Balto-Slavic verbal system, it will be convenient to briefly comment on the paradigmatic profile of the Indo-European *molō*-presents.

Indo-European *molō*-presents displayed acrostatic ablaut **ó* / **é* and “*h₂e*-conjugation” endings 1 sg. **-h₂e(i)*, 2 sg. **-th₂e(i)*, 3 sg. **-e(i)*, 3 pl. **-(é)rs*. The details of this reconstruction need not concern us here. Whether the root ablaut **ó* / **é* had in some cases already been replaced by **ó* / zero in the parent language is a question I will leave open. The tendency could in principle be entirely dialectal. With comparatively minor changes, *molō*-presents are preserved intact in Anatolian. The general evolution in the other languages is clear: *molō*-presents are regularly reflected as simple thematic presents or *ǵe/o*-presents, with concomitant generalization of one root vocalism (**o*, **e* or zero). In what concerns the position of *molō*-presents in the Indo-European verbal system, two facts are particularly relevant in our present connection:

- i) *molō*-presents are not found beside “normal”, “*mi*-conjugation” root athematic presents.²⁶

²⁵ I prefer deriving Hitt. *šarap-* / *šarip-^{hhi}*, Lith. *srė̃bti*, etc. from a *molō*-present rather than from a “*molō*-aorist” and a Narten present (as proposed by Jasanoff 2003, 81), cf. Villanueva Svensson 2007–08, 228f. with fn. 40.

²⁶ Hitt. *ḫuiš-^{mi}* “live” beside OIr. *foaid* “overnight”, Arm. *goy* “exists” (< **h₂uos-*), Go. *wisan* “be”, Ved. *vásati* “abide” (< **h₂ues-*) is the only serious counterexample I have been able to find (but see Tischler HEG 1, 265f. for doubts on the traditional etymology of Hitt. *ḫuiš-^{mi}*). Pace LIV, 357, Lith. *kāsti, kāsa* “dig”, OCS *kosnŕti* (*sę*) “touch” are almost certainly unrelated to Hitt. *kis(s)-^{mi}* “comb”, OCS *česati, češq* “id.”. The antiquity of the meaning “comb” is guaranteed by nominal derivatives like Lith. *kasà* “plait”, ON *haddr* “hair” or Mr. *cír* “comb”. It is arbitrary to modify the meaning of Indo-European **kes-* “comb” into a vague “arrange, order” in order to accommodate material like Lith. *kàsti*, OCS *kosnŕti*, Go. *hazjan* “praise” or Gk. *κόσμος* “order”.

- ii) *molō*-presents are made from presential roots, not from aoristic roots.²⁷ There is practically no evidence for an old aorist or perfect in the *averbo* of *molō*-presents, a recurrent pattern for Indo-European root athematic presents.

It is clear that *molō*-presents must be regarded as primary. A root like **melh₂-* “grind” made an unmarked present **mólh₂-e(i)* / **mélh₂-rs* in the same way as **h₁es-* “be” made **h₁és-ti* / **h₁s-énti*, **kēi-* “lie” made **kēj-or*, or **leg-* “collect” made **lég-e-ti*. Other types of presents may be found beside the unmarked primary presents (e.g. *u*-present **melh₂-u-*, *ske/o*-present **h₁s-ské/ó-*, desiderative **kēj-h₁sje/o-*, etc.), but presential roots like these, whatever the way they were inflected, typically lacked an aorist (and a perfect, which is irrelevant for Balto-Slavic).²⁸

9.4. Having these considerations in mind, we can now return to the position of **b^horH-* / **b^hrH-*, **skelH-* / **skl̥H-*, etc. in Balto-Slavic.

In principle it would seem relatively straightforward to derive doublets like Lith. *bárti* ~ *bùrti*, *skélti* ~ *skilti* directly from (post-)Indo-European presents **b^hórH-e(i)* / **b^hrH-ér*, **skélH-e(i)* / **skl̥H-ér*, but I am somewhat suspicious of such an account. Although a putative (pre-)Balto-Slavic **b^hórH-e(i)* / **b^hrH-ér* can be easily derived from Indo-European **b^hórH-e(i)* / **b^hérH-rs*, this is not true in the case of an equally hypothetical **skélH-e(i)* / **skl̥H-ér*. We would have to assume either something like **skólH-* / **skélH-* → **skólH-* / **skl̥H-* → **skélH-* / **skl̥H-* or **skólH-* / **skélH-* → **skélH-* / **skélH-* → **skélH-* / **skl̥H-*, with *h₂e*-conjugation endings and athematic inflection preserved at every relevant stage (thematic inflection is incompatible with root ablaut).

²⁷ All possible examples of *molō*-presents to aoristic roots in Kümmel 2004, 151ff. are Tocharian subjunctives of class I or V (e.g. TB *preku*, TA *pärkmār* “will ask” or TB *kewu*, *kutär* “will pour”, to **prek-*, **g^heu-*), which present a very different profile. It is irrelevant here whether they are to be derived from “*molō*-aorists” (as per Jasanoff 2003, 161ff., 199ff.) or from the classical perfect (e.g. Kim 2007, 188f.). See above footnote 23 on the alleged aoristic character of the root **sperH-*.

²⁸ This claim cannot be properly substantiated within the limits of this article. Contrary to a widespread assumption, I don’t think that the sigmatic aorist was regularly used to derive aorists from presential roots in the parent language. Note specially Narten’s important observation: “der sigmatische Aorist findet sich als ältere Bildung nur höchst selten bei Präsenswurzeln” (Narten 1964, 81).

Although the possibility cannot be excluded that Balto-Slavic still preserved the Indo-European h_2e -conjugation intact, I would rather favor a typologically more modern system for this stage. I thus propose that *molō*-presents had already been fully thematized in Balto-Slavic, with almost automatic generalization of the root vowel **o* or **e* (probably more rarely zero). As we have seen, *molō*-presents typically lacked an aorist in the parent language. Such a defectivity probably caused no problems in earlier, “dialectal Indo-European” stages of the language, when the verbal system had not yet switched from a relatively loose aspectual system to one governed by tense. But at some point the necessity must have been felt to provide every verb with a full paradigm.

What Balto-Slavic did, I submit, was to provide inherited *molō*-presents (now simple thematic presents with different types of root vocalism) with a zero grade aorist and an infinitive stem. The type of aorist originally associated with pres. **b^hórH-e-ti*, **skélH-e-ti*, inf. **b^hṛH-téi-*, **skḷH-téi-* cannot be reconstructed with certainty, since both Baltic and Slavic (like Germanic) have implemented a radical restructuring of their preterit system. I would favor “**b^hṛH-ã-*”, “**skḷH-ã-*” (**b^hṛH-aH-e-t*, **skḷH-aH-e-t?*), but other possibilities (e.g. **b^hṛH-s-t*, **skḷH-s-t*) probably cannot be excluded.

9.5. Whatever the pros and cons of this scenario (where much remains to be worked out in detail), there are some essential points to be retained: i) there is enough evidence to assume that verbs like (Lith.) *kálti*, *bárti*, *skélti* or *srēbti* originally displayed root ablaut, ii) such a reconstruction has the additional advantage of explaining the accentuation of Latv. *kaĩt*, *bārt*, Sl. **kõlti*, **bõrti*, iii) it is hardly credible that Balto-Slavic had preserved ablauting *molō*-presents until the last stages of its common development, iv) on the other hand, it is reasonable to suppose that the vocalism of the present stem stood in opposition to that of the aorist and infinitive stem.²⁹

²⁹ A potentially damaging problem for this scenario is posited by verbs that show both *o* and *e*-vocalism in Baltic-Slavic. The most important case, that of Lith. *málti* vs. Sl. **mēlti* (probably with secondary *e*-vocalism), has already been discussed (§9.1.3). It is a curious fact that all other possible examples present *o/e*-variation either within Baltic or within Slavic: Lith. *bèsti*, *bēda*, Latv. *best*, *bedu* “stick” vs. OPruss. *embaddusisi* “stecken” (: OCS *bosti*, *bodq* “stab”); Ru. *skrestí*, *skrebú* vs. Pol. *skrobać*, *skrobię* “scrape” (: Latv. *skrabt*, *skrabu* “id.”); ORu. *stonati*, *stonju* vs. OCS *stenati*, *stenjo* “groan, moan” (: Lith. *stenėti*, *stēna* “id.”). It would certainly be too rash to

10. I have tentatively posited a link between the fact that *molō*-presents did not inherit an aorist and the zero grade of the Balto-Slavic aorist and infinitive. It must remain a task for the future to determine whether this principle can be generalized to other types of presents to presential roots.³⁰ Examples like OCS *bъrati, berō* “gather, take” (IE **b^hér-e-ti*) or OCS *gъnati, ženō* “chase, persecute”, Lith. *giñti, gēna* “drive, chase” (IE **g^{wh}én-ti / *g^{wh}n-énti*) immediately come into mind. But counterexamples are not lacking (e.g. OCS *pъsati, pišō* “write” to the aoristic root **peik-*, LIV, 465f.) and Baltic and Slavic often do not match each other (e.g. Lith. dial. *milžti, mėlža* vs. RuCS *mlěsti, mlъzu* “milk”, IE **h₂mélǵ-ti / *h₂mǵ-énti*). Within the limits of this article it is only possible to check whether the principle can be used to explain the unexpected root accentuation of Latvian infinitives like *sērt, veñt, vērt*.³¹

10.1. A clear case is Latv. *veñt, vemju*, Lith. *vémti, vēmia* “vomit”, from an Indo-European athematic present **uémh₁-ti / *uṃh₁-énti* (Ved. *vámiti*, Gk. *ἐμέω*, Lat. *uomō, -ere*). No aorist or perfect are attested in oldest Vedic. Gk. aor. *ἔμεσ(σ)α*, Lat. perf. *uomuī* are clearly innovated. The *Dehnton* of Latv.

assume that presents with *o/e*-ablaut had been preserved until the last stages of Proto-Baltic and Proto-Slavic. ORu. *stonati* may owe its vocalism to the influence of the substantive **stonъ* “moan, groan” (cf. Vaillant 1966, 320). The consistent *e*-vocalism of Ved. *stanant-*, Gk. *στένω*, Gmc. **stenan*, in any case, indicates that **sten-* did not make a *molō*-present in the parent language. The case of the expressive family of Ru. *skrestí*, etc. is particularly uncertain. Vaillant (1966, 159) suggests that forms like Pol. *skrobać*, Latv. *skrabt* owe their vocalism to contamination with the root of Lith. *skōbti, skābia* “hollow, scoop”, Go. *scaban* “scrape”, Lat. *scabō, -ere* “scratch”. As for Lith. *bēsti* beside OPruss. *embaddusisi*, OCS *bosti*, I can only suggest that **b^hód^hh₂- / *b^héd^hh₂-* (Hitt. *padd(a)-bhi*, Lat. *fodiō, -ere* “dig”) split into two independent verbs very early in Balto-Slavic.

³⁰ Verbs that inherited an (active) root athematic aorist, on the contrary, typically surface as verbs with a full grade aorist-infinitive stem in Balto-Slavic (notice the aoristic character of verbs like Latv. *ceļt* “lift”, *dzeŗt* “drink”, *speŗt* “kick”, Sl. **derti* “tear”, **sterti* “stretch”, **mertí* “die”, etc.).

³¹ I leave out of consideration Latv. *bērt, beŗu* “strew, scatter” (Lith. *bėrti, bėria*), whose *Dehnton* is clearly borrowed from the anticausative *biŗt, biŗst* “pour out (intr.)” (Lith. *bĩrti, bĩŗa*, dial. *bĩrsta*), cf. the variant Latv. *bērt*, Lith. *beŗti*. A similar case is Latv. *leñt / leñt, lemju*, Lith. *lėmti, lėmia* “decide, predetermine” beside Latv. *lėmt*, Lith. *leñti* (OPruss. *limtwei* “break (tr.)”, with acute from the anticausative Lith. *lĩmti, lĩmsta* “bend, break (intr.)”, Latv. *lĩmt², lĩmĩt², -stu* “slip, collapse”).

veĩt can thus be explained from an original Balto-Slavic paradigm pres. **uémH-e-ti*, inf. **uǫH-téi-* (> **uǫH-tei-*), aor. “**uǫH-ǎ-*”. Mild support for such an assumption may perhaps come from the causative *vimdyti* “make vomit” (when they do not present *o*-grade of the root, causatives and iteratives in *-(d)yti* normally simply copy the root vowel of the base verb).

10.2. A more difficult case is that of Latv. *ņeĩt, ņǫmu (ņemu)* “take” (with variants *ņeĩt, neĩt, ņiĩt*), which continues an Indo-European thematic present **ném(h)₁-e-ti* (Gk. *véμo* “deal out, distribute”, Go. *niman* “take”). As unexpected lengthened grade formations like Lith. *núoma* 1 “lease, rent”, Gk. *νομάω* “handle, wield” or TB *ñemek* “harvest” suggest, the root **nem(h)₁-* probably belonged to the small group of roots that replaced a Narten present with a simple thematic present already within the parent language (like **b^her-* “bring”, **leǵ-* “collect”, etc., cf. Jasanoff 1998, 305ff.; 2003, 224; Villanueva Svensson ([forthcoming], § 6.2.). Verbs of this type typically lacked an aorist or a perfect (Gk. aor. *ἔνεμα*, perf. *νεπέμηκα*, Go. pret. *nam / nemum* are easily understood innovations). The original intonation of *ņeĩt / neĩt* is unclear. Since the *Brechtton* tends to expand over the *Dehnton*, it seems reasonable to assume that *ņeĩt* is older. If Nikolaev (2005, 78f.) is right in reconstructing the root as **nemh₁-* instead of traditional **nem-*, the *Dehnton* of *ņeĩt* can be explained from a Balto-Slavic paradigm pres. **némh₁-e-ti*, inf. **nǫh₁-téi-* (> **nǫH-tei-*), aor. “**nǫh₁-ǎ-*” (Latv. dial. *ņiĩt* may continue the original infinitive, but can also be analogical to *jiĩt*). The matter is further complicated by the intonation of its synonym *jeĩt, jǫmu* “take” (with variants *jeĩt, jiĩt*), which cannot be inherited (*aniť*-root **h₁em-*, cf. Lith. *iĩti* “take”). Since *nemt* and *jemt* have clearly influenced each other in Latvian (standard *ņemt!*), the intonation of *jeĩt / jeĩt / jiĩt* is almost certainly to be explained as taken from *ņeĩt / neĩt / ņiĩt*.

10.3. The etymology of Latv. *sērt, seŗu* “arrange corn for drying” and Latv. dial. *vērtiēs, veŗuós* “look” is unknown. The traditional connection with Gk. *εῖρω* “fasten together in rows, string”, Lat. *serō, -ere* “link, string” (**ser-*, LIV, 534f.),³² and Lat. *uereor, -ēri* “revere, fear”, OHG

³² Pace Rasmussen (1989, 198), all diagnostic evidence (Gk. *ἔρματα* “ear-rings”, Lat. *sermō* “speech”, *sors* “lot”, OIr. *sreth* “row”, etc.) points to an *aniť*-root **ser-*.

waron “observe, look after” (**uer-*, LIV, 685f.), respectively, is seriously compromised by the Latvian intonation. Although it remains conceivable that *sērt*, *vērtiēs* have replaced earlier zero-grade infinitives (**sṛH-téi-*, **urH-téi-*), the possibility that *seṛu*, *veṛuōs* go back to root athematic presents cannot be confirmed by independent evidence.

10.4. Latv. *vērt*, Lith. *vėrti*, Sl. **věrti* seem to be a clear counterexample to the rule we have tentatively posited (Ved. aor. *ávar!*), but these verbs confront us with a rather complex picture.

Latv. *vērt*, *veṛu*, Lith. *vėrti*, *vėria* mean “pierce, string, thread” (simplex and most compounds) and “open / close” (in the compounds Lith. *at-/už-vėrti*, Latv. *at-/āiz-vērt* and sometimes also in the simplex *vėrti* / *vērt*, almost certainly through decomposition). The semantics of Sl. **(-)věrti*, **(-)vǝrǝ* is very similar. We have, on the one hand, **ot(ǝ)-věrti* “open” (Cz. *otevřítí*, Slvn. *odvrěti*), **za-věrti* “close, enclose” (OCS *zavrěti*, Ru. dial. *zaverět*, Cz. *zavřítí*, Slvn. *zavrěti*), and, on the other, **pro-věrti* “stick through” (OCS *provrěti*, Bulg. *provrá*), **vǝ-věrti* “stick into” (OCS *vǝvrěti*), etc.

In the meaning “open / close” Balto-Slavic has clear cognates in Italic (Lat. *aperiō*, *-īre* “open”, *operiō*, *-īre* “close”, Os. **veru**, Um. abl. pl. *uerir* “door”) and Indo-Iranian (Ved. *var-* 1. “cover”, 2. “stop”, pres. *vṛṇóti* / *ūrṇóti*, aor. *ávar*, perf. *vavāra*), cf. specially *ápa*, *ví var-* “open, uncover”. Other frequently quoted material (Go. *warjan* “hinder, forbid”, Gk. *ἀείρω* “lift”, Alb. *vjerr* “hang up”) is best left aside. For Indo-Iranian Lubotsky (2000) has established a root **Huer-* with a basic meaning “cover”. It is not of prime importance for present purposes whether the meaning “stop” (almost exclusively in unpreverbed middle forms) is to be considered a secondary development of “cover” (as per Lubotsky) or is derived from a different root **uel-* (as per LIV, 684f.). The *aniṭ*-character of the “open / close” root is confirmed in Balto-Slavic by the word for “gate” Lith. *vaĩtai 2*, Latv. *vārti*, OPruss. *warto*, Sl. **vorta* b/c (OCS *vrata*, Ru. *voróta*, *vorotá*, SCr. *vráta*, Cz. *vrata*, *vráta*).

Given the two meanings of Lith. *vėrti*, Sl. **věrti* I am inclined to follow Derksen (1996, 82) and assume that two roots have merged in Balto-Slavic: **Huer-* “open, close”, used exclusively with preverbs, and an otherwise unknown root **uerH-* “pierce, put through”. The latter has imposed its *seṭ*-character on the former. It is thus perfectly possible that the

accent position of Latv. *vērt*, Sl. **vērti* reflects the original paradigm pres. **u̯erH-e-ti*, inf. **u̯r̥H-téi-* of a presential root **u̯erH-*, but this is of course impossible to prove.

**LA. *kaīt*, SL. **kōl̥ti* BENDRATIES TIPO KIRČIAVIMAS
IR *molō*-PREZENSŲ RAIDĀ BALŅŪ-SLAVŪ KALBOSE**

Santrauka

Baltų-slavų prokalbėje bendratis buvo pastoviai kirčiuojama galūnėje, kaip rodo latvių ir, iš dalies, slavų faktai. Šaknies ar priesagos kirčiavimas atsirado veikiant Hirto dėsniai. Rasmussenas nustatė keletą šios bendrosios taisyklės išimčių grupių: i) la. *kaīt* / sl. **kōl̥ti*, la. *maīt* / sl. **mēl̥ti* ir kt. (prez. sl. **koljō*, **koljēt̥* a.p. b, lie. *kāla*, la. *kaļu*); ii) sl. **kūiti*, **rjūti* ir kt. (prez. **kōvō*, **kovet̥* a.p. c); la. *veīt*, *sērt* ir kt. (prez. *vemju*). Rasmusseno pateiktas šių atvejų aiškinimas (kirtis buvo atitrauktas reduplikacinėse formose **b^hr̥-b^hōrh-ti*, **ku-kōuḥ-ti*, kur laringalas nevolikalizuojamas) yra daugeliu atžvilgių problemiškas. La. *kaīt*, sl. **kōl̥ti* kirčiavimą galima paaiškinti postuluojuant, kad ide. *molō*-prezentai baltų-slavų prokalbėje buvo įgiję tokią paradigmą: bendr. **b^hr̥H-téi-*, **sk^{l̥}H-téi-*, prez. **b^hōrH-e-ti*, **skélH-e-ti*, ? aor. “**b^hr̥H-ā-*”, “**sk^{l̥}H-ā-*” (plg. lie. *bárti*, *bāra* šalia *būrti*, *būria*, sl. **bōrti*, **borjō*; lie. *skélti*, *skēlia* šalia *skilti*, *skilia*). Bendratis kirtis buvo dėsningai atitrauktas pagal Hirto dėsnį: **k^{l̥}H-téi-* > **k^{l̥}H-tei-* → **kōlH-tei-*. Jei tokia paradigma buvo būdinga ir kitoms ide. prezenso šaknims, galima panašiai paaiškinti ir la. *veīt*, *vemju* ir kt. (**u̯mH-téi-* [> **u̯m̥H-tei-* → **u̯émH-tei-*], **u̯émH-e-ti*, “**u̯m̥H-ā-*”; plg. lie. *kauz*. *vimdyti*).

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