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THE BALTIC *ē*-PRETERIT REVISITED

1. As it is well known, the Baltic preterit suffixes $*-\bar{a}$ - and $*-\bar{e}$ - are in complementary distribution in modern Lithuanian. With few exceptions, they are entirely predictable from the present and/or the infinitive stem¹. Modern standard Latvian has generalized the \bar{a} -preterit to all verbs, but the oldest documents and the dialects offer clear evidence showing that the distribution of $*-\bar{a}$ - and $*-\bar{e}$ -preterits of modern Lithuanian continues with minor modifications that of Common East Baltic and, presumably, that of Common Baltic altogether².

The consistency and synchronic regularity of the (East) Baltic preterit system makes it difficult to relate its facts to those of the other Indo-European languages (apart from the identity of the Baltic \bar{a} -preterit with the Slavic second stem in -*a*-, everything else is insecure). Before this is attempted, it is advisable to exploit as far as possible the internal evidence of the Baltic languages themselves. This can be done in two possible ways: either by focusing on the main principles of distribution of the *- \bar{a} - and *- \bar{e} - preterits (i.e., where do we always or nearly always find only one of both preterits), or by focusing on synchronically irregular or unexpected forms (i.e., *- \bar{e} - or *- \bar{a} - preterits in a class of verbs that otherwise excludes them). Approaches along these lines, however, have yielded mutually incompatible results.

2. Since the *- \bar{e} -preterit is regular beside *ia*-presents (Lith. *ber̃ti*, *bẽria*, *bẽrė* "strew, scatter") and in the type *sakýti*, *sãko*, *sãkė* "say", an old view, going back to Schleicher, Kurschat or Osthoff³, considers the \bar{e} -preterit to be a contraction of *-*iįā*. *-*iįā* is to be

¹ This is self-evident for all suffixal formations. W. P. S c h m i d, - IF LXXI 286–296; IF LXXII 116–122, showed that the preterit of simple thematic presents is also largely predicted from the structure and vocalism of the root.

² Old Prussian also had both preterits, but their distribution does not correspond in all cases to that of Lithuanian (e.g. OPruss. $k\bar{u}ra$, $ismig\bar{e}$ vs. Lith. $k\bar{u}r\dot{e}$, $u\check{z}migo$). The few attested forms do not suffice to show to which degree the Old Prussian preterit system diverged from that of East Baltic. In addition, we cannot forget the possibility that some of the attested forms are errors of the translators. In what follows I will simply leave the Old Prussian facts out of consideration (as, on the other hand, it is usually done in studies of the Baltic preterit).

³ A. Schleicher, Handbuch der litauischen Grammatik, Prague, 1856, 224f.; F. Kurschat, Grammatik der litauischen Sprache, Halle, 1876, 280; H. Osthoff, Zur Geschichte des Perfects im Indogermanischen, Strassburg, 1884, 60, 66.

analyzed as a "regular" \bar{a} -preterit added to a stem ending in *-*i*- that must have been taken from the *-*je/o*-present.

From a comparative point of view, this explanation eliminates the necessity to look for cognates of the Baltic \bar{e} -preterit – in itself an advantage, since there are no particularly obvious *comparanda* to this formation elsewhere in the family. We would just be left with a general \bar{a} -preterit to be accounted for. It is not in doubt that the Baltic \bar{a} -preterit is related to the Slavic second stem *- \bar{a} - of verbs like *berq*, *bbrati* (aor. *bbraxb*) "take" or *pišq*, *pbsati* (aor. *pbsaxb*) "write". It is reasonably certain that this Balto-Slavic *- \bar{a} -aorist triggered zero grade of the root, and it is possible, but by no means certain that the extension of *- \bar{a} - to the infinitive is a specifically Slavic innovation⁴. Its origin is still unclear, but this doesn't affect the Balto-Slavic reconstruction. As far as Baltic is concerned, we would just have to assume that Baltic first generalized the \bar{a} -preterit as the only preterit marker and then created a new \bar{e} -preterit of its own from *- $ij\bar{a}$. It is also important to remark that the obligatory character of the second stem in -a- beside *je*-presents in Slavic as opposed to the regular presence of the \bar{e} -preterit beside *ia*presents in Baltic is a powerful argument for this theory, since it is precisely in this class where the \bar{e} -preterit (<*- $ij\bar{a}$) should have originated.

Attractive as this theory might be, however, it must also face some serious problems. The validity of the development $*-i\dot{l}a > *-\bar{e}$ has often been questioned, but I believe the Baltic feminine \bar{e} -nouns provide a very close parallel, for these are almost certainly derived from earlier $i\dot{l}a$ -stems (e.g. Lith. $\check{z}\tilde{e}m\dot{e} = OCS \ zemlja$ "earth"). \bar{e} -preterits and , feminine \bar{e} -stems thus support each other and the validity of the phonetic process at hand. It is also not immediately clear why the preterit stem adopted *-*i*- from the present, but one could envisage a number of possible scenarios explaining this (see below §5.1.). In any case, nothing makes it *a priori* an entirely unconceivable process.

A more serious problem, of course, is that the *ē*-preterit is not only found beside *ia*presents and in the type *sakýti*, *sãko*, *sãkė*. It is regular beside simple thematic presents to TET roots (type *vèsti*, *vẽda*, *vẽdė* "lead", dial. Latv. *vede*, OPruss. *weddē-din*) and it is found in other classes as well (e.g. Lith. *málti*, *mãla*, *mãlė* "grind", *mùšti*, *mùša*, *mùšė* "beat", *trìnti*, *trìna*, *trýnė* "rub"), including irregular or isolated verbs where the *ē*-preterit can hardly be a recent innovation (e.g. *dúoti*, *dúoda*, *dãvė* "give", *im̃ti*, *ima*, *ěmė* "take", *gim̃ti*, *gìmsta*, *gìmė* "be born", *miřti*, *mìršta*, *mìrė* "die", *vìrti*, *vérda*, *vìrė* "boil (tr./intr.)"). In some of these classes the *ē*-preterit is certainly not very old (e.g. Lith. *mãlė* vs. dialectal *mãlo*, Latv. *malu*), while the *ē*-preterits *mìrė* or *gìmė* could be

⁴ If the last statement is correct, this Balto-Slavic \bar{a} -aorist must be kept apart, descriptively, from the second stem in *- \bar{a} - of verbs like OLith. giemi, giedóti "chant", miegmi, miegóti "sleep", ráumi, raudóti "weep" (modern Lith. giedu, miegù, ráudu), OCS sъpi-, sъpati "sleep", sъči-, sъcati "piss".

attributed to an earlier *-*ie/o*-present that was later replaced by other formations (e.g. miršta, $g\tilde{e}ma/gimsta$ for earlier **miria*, **gimia*)⁵, but there will always remain a number of relatively old \bar{e} -preterits that cannot stem from *-*ijā*. The "*-*ijā* > *- \bar{e} theory" is thus forced to assume a wide and apparently arbitrary extension from the original nucleus of \bar{e} -preterits, not always easy to understand.

I am not aware of any attempt to trace the details or the motivation of such a spread (I will try to do it below). No wonder that this theory has not met with general approval in its original, strongest formulation. Nevertheless, its explanatory power for the types *ber̃ti*, *bẽria*, *bễrė* and *sakýti*, *sãko*, *sãkė* remains appealing. It is thus my impression that while some scholars would simply reject the theory altogether, other would be inclined to accept a "mild" version of it: $*-ij\bar{a} > *-\bar{e}$ would be applicable only to these types, but not to the \bar{e} -preterit as a whole⁶. The $*-\bar{e}$ of *bễrė* or *sãkė* would thus have a different origin from that of *vẽdė*, *mùšė*, *dãvė* or *vìrė*. It must be observed, however, that the origin of this "second" \bar{e} -preterit remains unclear. A unitary explanation should certainly be given preference.

3. An entirely different approach emphasizes the evidence of synchronically irregular forms. These are not very common, but some do exist, although their historical interpretation is by no means self-evident. Probably the most surprising fact (and the one that most clearly appears to point to a given historical interpretation) was Endzelin's discovery, almost a century ago, that at least two verbs, (Lith.) *kèpti* "bake, fry" and *dègti* "burn (tr./intr.)" have left clear traces of an original contrast in the preterit between transitive **kep-ē-*, **deg-ē-* and intransitive **kep-ā-*, **deg-ā-*⁷. Such a contrast is fully isolated within the Baltic preterit system and must be an archaism.

Endzelin's interpretation was straightforward: the two preterits were originally linked to a contrast of transitivity. This theory was embraced by Stang, as well as by other

⁵ So, for instance, Barton, – IF LXXXV 257ff. See below §6.2.2.

⁶ So, for instance, H. Pedersen, Prace lingwistyczne ofierowane Janowi Bandouinowi dla uczczenia jego działalności naukowej 1868–1921, Kraków, 1921, 65ff.; La cinquième déclinaison latine, København, 1926, 10ff.; A. Vaillant, – BSL XL 7, 15; W. R. Schmalstieg, – Lingua X 93ff., LgB I 30ff.; J. Kuryłowicz, BPTJ XXII 176ff.; J. E. Rasmussen, Papers from the 6th International Conference on Historical Linguistics, Amsterdam, 1986, 441; G. Michelini, – ZfSI XXXV 841ff..

⁷ J. Endzelin, – KZ XLIII 18f.; Lettische Grammatik, Heidelberg, 1923, 567f., 667; Latviešu valodas skaņas un formas, Riga, 1938, 190; Latviešu valodas gramatika, Riga, 1951, 734f. The facts are well known: dialectal Latvian tr. d'adźa: intr. daga, tr. $cep\bar{e}$ -: intr. sa-capa, iz-capa. Pairs like these may have also existed in Lithuanian, cf. also dialectal Lithuanian intr. kepti, kempa, kepo "get dry"; Klein degiu "accendu", degu "ardeo", Universitas deginu "palę", degu "gorę" (I haven't been able to locate in the Universitas the often quoted preterit degau, but it is perhaps to be inferred from its author's note, p. 42, "verba in u non iu desinentia habent praeteritum indicativi in aw, praeter ...", among which exceptions degu is not mentioned).

authorities⁸. It remains one of the main theories on the primitive distribution of the two Baltic preterit suffixes, which has triggered a number of more speculative ideas on how the putative system trans. $*-\bar{e}-:$ intrans. $*-\bar{a}-$ could have come into being⁹.

This theory allows a totally different interpretation of the type $be\tilde{r}ti$, $b\tilde{e}ria$, $b\tilde{e}re$. *ia*-presents are typically transitive in Baltic and are very often found beside intransitive nasal and *sta*-presents, which regularly select \bar{a} -preterits. The presence of \bar{e} -preterits beside *ia*-presents would thus be due to their transitive value. One could even go on and speculate that a previous system pres. **ber-a*- : pret. **bir-ē*- (tr.) / **bir-ā*- (intr.), **µert-a*- : **µirt-ē*- (tr.) / **µirt-ā*- (intr.) underlies pairs like *ber̃ti*, *bẽria*, *bẽrė* "strew, scatter" : *birti*, *býra*, *biro* "fall", *ver̃sti*, *ver̃čia*, *ver̃tė* "turn over" : *vir̃sti*, *vir̃sta*, *vir̃to* "turn into, become", the presents being back formed to the preterit, but given the productivity of the system there are no grounds to prefer this over other possible scenarios. The transitivity of the *ē*-preterit would also account for its regularity beside TeT-a presents (*vèsti* "lead", etc.), because these are typically transitive. The preterit of Old Lithuanian athematic presents without a second stem to some degree also supports this view (tr. édė, dãvė vs. intr. *bégo*, *sédo*).

The problem, of course, is that there is no dearth at counterexamples, including isolated verbs. Transitive \bar{a} -preterits are by no means uncommon: \vec{r} is \hat{o} "tied up", $l\hat{u}po$ "skinned, barked", kirto "fell", (dial.) $m\tilde{a}lo$ "ground", etc.¹⁰ Intransitive \bar{e} -preterits are not so common, but one finds some disturbing examples like mire "died", gime "was born", gule "lay down", etc. Since the Baltic preterit system of simple thematic presents , is largely regulated by root vocalism and stem structure, a case for Endzelin's theory could be advocated by assuming that the status of the two Baltic preterit suffixes shifted from one in which they were meaningful morphemes to another in which they are just positional variants governed by the present stem. Presents of the type CaC-a, CiC-a or CeRC-a would have ended up selecting the \bar{a} -preterit, irrespective of their diathetic value. But even granting a strong remodeling of the system along these lines, it is still difficult to understand why classes mostly composed of transitive verbs like these selected the \bar{a} -preterit or why do we have isolated intransitive \bar{e} -preterits like mire.

There are also problems in relating the putative Common Baltic preterit system trans. *- \bar{e} - : intrans. *- \bar{a} - to the facts of the other Indo-European languages. As observed

⁸ Ch. Stang, Das slavische und baltische Verbum, Oslo, 1942, 189ff.; Vergleichende Grammatik der baltischen Sprachen, Oslo, 1966, 377ff.; H. Kölln, Opositions of voice in Greek, Slavic and Baltic, København, 1969, 30ff. and *passim*; Barton, – IF LXXXV 252ff.

⁹ E.g. G. Klingenschmitt, Das altarmenische Verbum, Wiesbaden, 1982, 3ff.; Rasmussen, Papers from the 6th International Conference on Historical Linguistics, Amsterdam, 1986, 441ff.

¹⁰ A list of primary transitive verbs with the \bar{a} -preterit can be found in S t a n g, Vergl. Gramm., 385.

above, the Baltic \bar{a} -preterit is clearly related to the Slavic verbs with a second stem in -a-, but Slavic verbs with a second stem in -a- show no particular preference for intransitivity. In addition, the Slavic second stem in -a- is particularly at home beside *je*-presents, where we have the \bar{e} -preterit in Baltic. As for the \bar{e} -preterit, it is even dubious whether we can compare a Proto-Baltic "transitive \bar{e} -preterit" with any other formation elsewhere in the family. A connection with the Greek "passive" n-aorist ($\check{\epsilon}\mu\alpha\nu\eta\nu$ "went mad") and other " \bar{e} -stative"¹¹ formations would be difficult to maintain for obvious semantic reasons. The Baltic and Slavic classes that belong with certainty to this set show an entirely different morphological profile (deverbative type Lith. miniù, minéti "mention", OCS munjo, muněti, denominative Lith. senéju, senéti, OCS starějo, starěti "be old"). The Slavic imperfect type nesěaxz looks very much like an inner Slavic innovation, probably of periphrastic origin, and shows a different distribution. In spite of the many efforts among these and similar lines, we must acknowledge the fact that clear cognates of the Baltic \bar{e} -preterit (not to speak of a Baltic "transitive \bar{e} -preterit") are simply lacking. There is nothing in Slavic or any other Indo-European language that even moderately resembles the distribution and meaning of the \bar{e} -preterit in Baltic (unless resorting, of course, to a large number of ancillary hypothesis).

As already stated, I believe that the elimination of the need to look for *comparanda* of the Baltic \bar{e} -preterit is one of the main advantages of the *- $i\underline{i}a$ > *- \bar{e} theory. On the other hand, the pairs trans. *kep- \bar{e} -, *deg- \bar{e} - : intrans. *kep- \bar{a} -, *deg- \bar{a} - have all the appearance of an archaism. In the remainder of this article I will argue for the correctness of Schleicher's old view. I will begin precisely by reverting Endzelin's interpretation of the pairs *kep- \bar{e} -, *deg- \bar{e} -: *kep- \bar{a} -, *deg- \bar{a} -, which I believe can be reasonably accounted for within the *- $i\underline{i}a$ > *- \bar{e} theory.

4. Let us assume, for the sake of the argument, that the $*-ij\bar{a} > *-\bar{e}$ theory is correct, and that at some stage of its development (Pre-)Baltic had extended the \bar{a} -preterit to virtually all types of verbs. We will then start from an original preterit $*kep-\bar{a}-, *deg-\bar{a}-$ (that almost certainly had replaced earlier sigmatic aorists $*k\bar{e}p-s-, *d\bar{e}g-s-$) which was both transitive and intransitive in just these two verbs.

As a second assumption, let us assume that the type of *vesti* "lead", *nešti* "carry", *sekti* "follow", *besti* "dig", etc. acquired a new, typically transitive \bar{e} -preterit from some external source, a source that can only have been the \bar{e} -preterit (< *-*i* $\mu \bar{a}$) of *ia*-presents. The new \bar{e} -preterits **ved* \bar{e} , **neš* \bar{e} , etc. simply replaced the older \bar{a} -preterits **ved* \bar{a} , **neš* \bar{a} , as could be expected, but in the case of *kepti* and *degti* a special development took place.

¹¹ I use this term only as a descriptive label.

Because these two verbs (and only these two in this class!) were bivalent, both transitive and intransitive, the old preterits (tr./intr.) * $kep-\bar{a}$ -, * $deg-\bar{a}$ - were relegated to the secondary value of intransitive preterits by the new, specifically transitive \bar{e} -preterit.

The individual system of $k \dot{e} pti$ and $d \dot{e} gti$ may thus be viewed as a particular offshoot of the adoption of the \bar{e} -preterit in the type of $v \dot{e} sti$. This process would no doubt have been favored by the existence of numerous pairs of transitive \bar{e} -preterit : intransitive \bar{a} -preterit beside transitive *ia*-presents : intransitive nasal and *sta*-presents (e.g. *ver̃sti*, *ver̃čia*, *ver̃tė* "turn over" : *vir̃sti*, *vir̃sta*, *vir̃to* "turn into, become", etc.). Apart from *kèpti* and *dègti*, only dialectal Latv. *tękā* "flowed" appears to have resisted the adoption of the \bar{e} -preterit, obviously because it was intransitive¹².

5. If this explanation is correct, it supports the old $*-i\underline{i}\overline{a} > *-\overline{e}$ theory in its fullest form (at least, it can be said to fit into it reasonably well). In what follows I will propose a scenario of how the Baltic preterit system and the spread of the \overline{e} -preterit may have evolved.

As already stated, I assume that in (Pre-)Baltic the Balto-Slavic \bar{a} -aorist was extended as the sole preterit marker. This assumption is of course an oversimplification of what must have been a much longer and complicated process (a process that in part may have overlapped with some of the developments to be described below), but it offers a convenient starting point from which the Baltic facts can be reasonable explained.

5.1. The \bar{a} -preterit to *ia*-presents adopted *-*i*- from the present, with subsequent regular phonetic change *-*i* $\bar{i}a$ > *- \bar{e} :

*peiš-ielo- : *piš-ā- : *piš-tēi (cf. OCS pišo, pьsati, pьsaxъ) \rightarrow

*peiš-įa- : *piš-iį \bar{a} - : *piš- $t\bar{e}i \rightarrow$

*peiš-įa- : *p**ei**š-ē- : *p**ei**š-tēi >

piẽšti, piẽšia, piẽšė "draw".

The process perhaps started among transitive *ia*-presents beside intransitive nasal and *sta*-presents:

*ber-įa-: *bir-ā-: *bir-tēi vs. *bi-n-r-a: *bir-ā-: *bir-tēi \rightarrow *ber-įa-: *bir-**i**įā-: *bir-tēi vs. *bi-n-r-a: *bir-ā-: *bir-tēi \rightarrow *ber-įa-: *b**e**r-ē-: *b**e**r-tēi vs. *bi-n-r-a: *bir-ā-: *bir-tēi > ber̃ti, bẽria, bẽrė "strew, scatter": birti, býra, biro "fall".

¹² The explanation offered here for the pairs tr. **kep-ē-*, **deg-ē-* vs. intr. **kep-ā-*, **deg-ā-* provides a handbook example of Kuryłowicz' 4th Law of Analogy: "quand à la suite d'une transformation morphologique une forme subit la différentiation, la forme nouvelle correspond à sa fonction primaire (de fondation), la forme ancienne est réservée pour la fonction secondaire (fondée)" (J. K u r y ł o w i c z, Esquisses Linguistiques, I, München, 1973, 79).

This would help explaining the adoption of -i- and of the full grade from the present, so that ablaut was given up in this class¹³. Both processes would have been provoked by the desire to differentiate the preterit of transitive *ia*-presents from the preterit of intransitive nasal and *sta*-presents. Be it as it may, the new conjugation pattern must have spread to (almost) all *ia*-presents of the language.

The characteristic lengthened grade of the \bar{e} -preterit to *ia*-presents remains problematic, but must be a specifically Baltic innovation¹⁴.

5.2. Once established in the language, the \bar{e} -preterit began to spread to other types of verbs, almost certainly because it was felt as characteristically transitive. The transfer of the \bar{e} -preterit to other classes was only gradual, partial, and sometimes very recent. It is certainly Common Baltic for thematic presents to TET-roots (type *vèsti*), and perhaps so for some other verbs, but the adoption of the \bar{e} -preterit by simple thematic presents

¹³ Similarly Kuryłowicz, – BPTJ XXIII 176ff.

¹⁴ This problem will not be tackled here in detail, except for expressing my belief that it must be a Baltic innovation and cannot be plausibly related neither to the lengthened grade of the sigmatic aorist nor to the perfect (on the other hand, I find it more than doubtful whether Proto-Indo-European had lengthened grade perfects at all). Without taking a strong position here, I see two possible solutions for the long vowel of these preterits.

On the one hand we have the analogical solution of K u r y ł o w i c z (RSI XVI 13; L'apophonie en indo-européen, Kraków, 1956, 298ff.; Indogermanische Grammatik II: Akzent, Ablaut, Heidelberg, 1968, 231f., with variants in the details): in *set*-roots ending in a sonant the length of the infinitive (due to the loss of a laryngeal) would have been adopted by the preterit (**ger-ia-*, **ger-ē-*, **gēr-tēi* \rightarrow **ger-ia-*, **gēr-ē-*, **gēr-tēi*), where it was grammaticalized as a distinctive feature following the shortening of long diphthongs in tautosyllabic position (**ger-ia-*, **gēr-ē-*, **gér-tēi* > *géria*, *géri*, *géri*, *géri*, *déri*, "trians"). The pattern spread to *anit*-roots and the intonation of the long vowel of the preterit was adapted to that of the infinitive (**ber-ia-* : **ber-ē-* : **ber-tēi* \rightarrow **ber-ia-* : **bēr-ē-* : **ber-tēi* > *bēria*, *bēri*, *bērti* "strew, scatter"). Finally the pattern spread to roots not ending in a sonant, where the length was even adopted by the infinitive (*srēbia*, *srēbei*, *srēbti* "sip"). Variants of this scenario can be found in other authors (S t a n g, Vergl. Gramm., 389f.; T. M a t h i a s s e n, Studien zum slavischen und indoeuropäischen Langvokalismus, Oslo etc., 1974, 63ff.). One may ask, of course, why the same process did not take place among *ā*-preterits to *set*-roots, but it stands to reason that analogy and leveling could have worked in different directions depending on the different verbal classes.

Within the *- $i\dot{q}\bar{a} > *-\bar{e}$ theory, V. M. Illič-Svityč, VSJa V 113, and G. Michelini, ZfSl XXXV 844, have suggested that the length in the preterit is due to compensatory lengthening *°ER- $(i)\dot{q}\bar{a} >$ *°ĒR- \bar{e} . Such a solution would be very attractive in principle, but it cannot have been a general sound law (e.g. $\check{z}em\dot{e} = OCS \ zemlja$!). Building on earlier ideas of Stang (International Journal of Slavic Linguistics and Poetics X 111ff., Vergl. Gramm., 145ff.), J. H. Larsson has recently proposed that retraction of the *ictus* from *- $i\dot{q}o$ -, *- $i\dot{q}\bar{a}$ -, *- $i\dot{q}u$ - regularly yielded *métatonie douce* and lengthening in disyllabic words (Per aspera ad asteriscos. Studia Indogermanica in honorem Jens Elmegård Rasmussen sexagenarii Idibus Martiis anno MMMIV, Innsbruck, 2004, 305–322). The main evidence comes from deverbative and deadjective nouns like $m\tilde{o}l\dot{e}$ "milling, grinding" (*málti* "grind"), geris "drink" (*gérti* "drink"), $m\tilde{u}\check{s}is$ "battle" (*mùšti* "beat"), $gr\tilde{o}\check{z}is$ "beauty" (*gražùs* "beautiful"), etc. The preterit of *ia*presents would seem to fit well into this theory, assuming they bore the ictus in the suffix. of a different root structure has been much more recent and only restricted to certain dialects:

5.2.1. Thematic presents to TET-roots (type *vèsti*, *vẽda*, *vẽdė* "lead", *nèšti* "carry", *sèkti* "follow", *bèsti* "dig", etc.) were among the first (perhaps the first class altogether) to adopt the \bar{e} -preterit. Apart from the intr. * $kep\bar{a}$, * $deg\bar{a}$ beside "normal" tr. * $kep\bar{e}$, * $deg\bar{e}$, dial. Latv. $tek\bar{a}$ - is the only verb that does not follow the regular pattern.

5.2.2. Thematic presents with zero grade to roots ending in a sonant (TR-a) have \bar{e} preterits with lengthened grade in Lithuanian: *mìnti*, *mìna*, *mýnė* "trample down", *gìnti*, *gìna*, *gýnė* "defend", *pìnti*, *pìna*, *pýnė* "weave", *skìnti*, *skìna*, *skýnė* "pluck", *tìnti*, *tìna*, *týnė* "whet (by hammering)", *trìnti*, *trìna*, *trýnė* "rub", *pìlti*, *pìla*, *pýlė* "pour", *dìrti*, *dìria*, *dýrė* "skin, flay", *stùmti*, dial. *stùma* (liter. *stùmia*), *stūmė*, "push". In Latvian we
find both this type (*mīņu*, *pīņu* (ē)), as well as *ā*-preterits with zero grade (*minu*, *pinu*(ā)). Both the lengthening grade and the *ē*-preterit are almost certainly analogical after
the type *gìrti*, *gìria*, *gýrė* "praise" (this is the traditional view anyway).

5.2.3. The *ē*-preterit of literary Lithuanian is very recent in the type *bárti*, *bãra*, *bãrė* "scold", *kálti*, *kãla*, *kãlė* "forge", *málti*, *mãla*, *mãlė* "grind", *kàsti*, *kãsa*, *kãsė* "dig" (pres TaT-a, TaR-a). The *ā*-preterit is still well represented in the Lithuanian dialects (*bãro*, *kãlo*, *mãlo*) and is the only one in Latvian – even though here we find an innovated *ia*-present (*bařt*, *baru*, *baru*; *kaĨt*, *kaſu*, *kalu*; *maĨt*, *maſu*, *malu*).

5.2.4. For verbs of the type *lipti*, *lipa*, *lipo* "climb" and *brùkti*, *brùka*, *brùko* "poke into" we find preterits like *lipė*, *brùkė*, *kišė*, *skùtė*, *rišė*, etc. in East Lithuanian dialects (liter. *lipo* "climbed", *brùko* "poked into", *kišo* "poked", *skùto* "shaved", *rišo* "tied", etc.). Only the \bar{e} -preterit of *mùšti*, *mùša*, *mùšė* (dial. *mùšo*) "beat" has a somewhat wider distribution. The \bar{e} -preterit is not found in Latvian. In Lithuanian it seems that the \bar{e} -preterit has been expanding westwards during the last centuries and is very clearly a recent innovation¹⁵.

5.2.5. These are the only groups of simple thematic presents where we find the \bar{e} -preterit (together with the type ginti, gena, gine, which shows a different profile and will be discussed below). In two of them it is restricted to part of the Lithuanian dialects. The type minti, mina, myne bears all the appearance of an innovation. Finally, we have seen that the intransitive \bar{a} -preterits $kep\bar{a}$, $deg\bar{a}$ (: tr. $kep\bar{e}$, $deg\bar{e}$), Latv. $tek\bar{a}$ - can be interpreted as archaisms pointing to a secondary adoption of the \bar{e} -preterit in the type vesti, veda, vede. As all these classes are mainly composed of transitive verbs, we can view transitivity as the main factor favoring the spread of the \bar{e} -preterit.

Transitivity may also be made responsible for the adoption of the \bar{e} -preterit in some verbs not belonging to a productive and regular type: $\acute{e}d\acute{e}$ "ate (of animals, fraß)" ($\acute{e}sti$,

¹⁵ Details in D. Konstantinova, V. Kapsevičienė, – Klb XL 36–44.

éda, OLith. *ésti*), $d\tilde{a}v\dot{e}/d\tilde{e}v\dot{e}$, Latv. *devu* (ē) "gave" (*dúoti*, *dúoda*, OLith. *duomi*), *ěmė* "took", Latv. *jēmu* (ē) (*im̃ti*, *ìmal(j)ẽma*). The preterits $d\tilde{a}v\dot{e}$ and *ễmė* remain traditional problems that need not delay us here¹⁶.

6. The verbs discussed in 5.2.1.–5.2.5., where the \bar{e} -preterit cannot be due to the phonetic change *- $ij\bar{a} > *-\bar{e}$, can all be reasonably accounted for as having imported the \bar{e} -preterit from *ia*-presents very recently (in point of fact, some of them actually *must* be explained in this way), transitivity being probably the principal factor.

There remains a number of more complicated cases which either do not fit reasonable well into the general pattern of expansion of the \bar{e} -preterit outlined above, or appear to overtly contradict it. Most of them are traditional puzzles that pose a problem for every theory of the Baltic preterit.

6.1. First of all, we have some \bar{a} -preterits to *ia*-presents.

6.1.1. A small set consists of verbs ending in -d- in Lithuanian: léisti, léidžia, léido "let", gristi, grindžia, grindo "pave", grústi, grúdžia, grúdo "crush", kléisti, kléidžia, kléido "dissipate". The expected preterits léidė, grindė, kléidė are attested in the dialects. Thematic presents are also attested for grenda or grúda. Perhaps these verbs built thematic presents originally that were later replaced by *ia*-presents. Nevertheless, it is curious that their remodeling as *ia*-presents did not entail automatically the creation of new \bar{e} -preterits.

6.1.2. A much more serious counterexample is posed by the verb for "plough": Lith. $\tilde{a}r\dot{e}$ ($\acute{a}rti$, $\tilde{a}ria$) has a short vowel instead of the expected long $\acute{o}r\dot{e}$, which is in fact attested in the dialects. Latv. $a\hat{r}t$, $a\dot{r}u$, aru (\ddot{a}) agrees in vocalism with Lith. $\tilde{a}r\dot{e}$ and shows, in addition, an \bar{a} -preterit, even in dialects where the \bar{e} -preterit would have been preserved. The evidence thus points to an original preterit * $ar\bar{a}$ -, partially regularized in Lithuanian as $\tilde{a}r\dot{e}$ (adoption of the \bar{e} -preterit as is the rule for *ia*-presents, but keeping the original vocalism), and only later fully regularized as $\acute{o}r\dot{e}$ in some dialects. The original Baltic paradigm * $\acute{a}r$ - $t\bar{e}i$, * $\tilde{a}r$ -ia, * $\tilde{a}r$ - \bar{a} agrees perfectly, of course, with OCS $orj\rho$, orati, oraxo, but the preservation of the original \bar{a} -preterit would be totally unparalleled in Baltic and particularly surprising beside a *- $\underline{i}e/o$ -present that is certainly old (* $h_2\acute{a}rh_3$ - $\underline{j}e/o$ - > OCS orj ρ , orati, Goth. arjan, Lat. ar \tilde{o} , - $\bar{a}re$, Gk. $\grave{a}p\acute{o}\omega$).

¹⁶ One could compare Lith. *Ìma*, *ễmė* directly with OCS *imq*, *jętъ*, as has often been done. *ễmė* would then be one of the few cases where we can be certain that a Baltic preterit continues more or less directly an Indo-European root aorist (* $h_1 \acute{e}m$ -t), its vocalism being left untouched when the preterit suffix *- \vec{e} -(< *- $i\dot{j}\vec{a}$) was added to it. The long vowel of *ễmė* could be secondary, as it must be in *ějo* "went". Assuming Larsson's theory to be correct (see above, footnote 14), one could suppose that *im̃ti* was among the first verbs to adopt the \vec{e} -preterit, at a time when it had not been contracted yet, and that this triggered suffixal accentuation (because it was the most widespread or the only one found among $i\dot{j}\vec{a}$ preterits?): * $\acute{em}(-t) \rightarrow *em$ - $i\dot{j}\vec{a} > *\tilde{e}m\bar{e}$. All this, of course, is very insecure and should not be taken too seriously. Lith $d\tilde{a}v\dot{e}$, Latv. devu remain a crux for me as they have always been.

As an explanation I can only suggest that the preterit of *árti* has been assimilated to that of the type *bárti* "scold", *kálti* "forge", *málti* "grind", *kàsti* "dig", etc. (pret. **barā*, **kalā*, **malā*, **kasā*). It is conceivable that such an assimilation took place only in Latvian (where the presents (Lith.) *bãra*, *kãla*, *mãla* have been replaced by *ia*-presents: Latv. *baŗu*, *kaļu*, *maļu*), but the vocalism of Lith. *ãrė* would still be left unaccounted for. Since we don't know exactly what the precise origin of the length in the preterit to *ia*-presents is, it remains possible that it originated in just some types of verbs (e.g. in verbs with accent in the suffix *-*i̇jā*, lengthening being then due to accent retraction), to which *árti* did not belong, spreading later to all *ia*-verbs with the appropriate root structure. Lith. *ãrė* would then be an archaism, but not a direct counterexample to the rule *-*iįā* > *-*ē*¹⁷.

6.2. Finally, we have a group of mostly intransitive (!) \bar{e} -preterits that either are entirely irregular or belong to isolated or unproductive types of verbs.

Pres. TERa : pret. TRē: giñti, gẽna, gìnė "chase, drive (cattle)" (Latv. dzinu (ā)), miñti, mẽna, mìnė "recall", giñti, gẽma (gìmsta), gìmė "be born" (Mielcke, Nesselmann gimau, Latv. dzimu (ā)), dial. dìlti, dẽla, dìlė/dìlo "wear out" (liter. dìlti, dỹla, dìlo, Latv. dçlu/dilstu, dilu (ā)), dial. svìlti, svẽla, svìlė/svìlo "scorch" (liter. svìlti, svỹla, svìlo, Latv. svęlu/svilstu, svilu (ā)).

Intransitive irregular or isolated verbs: *miřti*, *miřšta*, *miřé* "die" (Latv. *miru* (ā), but Elger *nomirre*!), *virti*, *vérda*, *viré* "boil (tr./intr.)" (Latv. *viru* (ā)), *pùlti*, *púola*, *púolé* "fall" (dial. *púolo*, Latv. *pulu* (ā)), *gulti*, *gùla(/gùlia)*, *gùlė(/gùlo)* "lie down" (Latv. *gult(iês)*, *gulu(ôs)/gulstu(ôs)*, *gulu(ôs)*, *gūlu(ôs)*), dial. *tàpti*, *tampa*, *tăpė* "become" (liter. *tãpo*), dial. *skàsti*, *skañta*, *skãtė* "spring, hop" (liter. *skãto*).

For all these verbs Latvian has the \bar{a} -preterit. It has often been supposed that Latvian has preserved the oldest state of affairs¹⁸, but it is difficult to imagine how and why would Lithuanian have replaced perfectly regular preterits like **mirā*, **virā* or **gimā* by the irregular and isolated *mìrė*, *vìrė* and *gìmė*. Since a Latvian innovation is easy to understand, we must assume that Lithuanian has preserved the original preterit.

¹⁷ Other potential irregularities in the preterit to *ia*-presents are also to be explained, as probably in the case of *léisti*, *léidžia*, *léido* "let" or *grį́sti*, *griñdžia*, *griñdo* "pave", as due to a very recent transfer into this type of inflection, whereby the preterit stem has changed a little bit later than the present: *tar̃ti*, *tãria*, *tãrė* (instead of the expected ***tõrė*) "pronounce" is no real counterexample: the older morphology of this verb was *tarýti*, *tãria*, *tãrė*. Dialectal Lithuanian *kãvo*, *šãvo* (*káuti*, *káuja/káuna*, *kóvė* "beat", *šáuti*, *šáuja/šáuna*, *šóvė* "shoot") probably reflect an earlier paradigm **kava* : **kavā*, **šava* : **šavā* (as in Slavic *kove*-, *kovati* "forge"; so, for instance, S t a n g, Vergl. Gramm., 358). From this point of view, however, Latv. *aru* / Lith. *ãrė* remain even more isolated.

¹⁸ E.g. J. Endzelynas, Baltų kalbų garsai ir formos, Vilnius, 1957, 186 (Lithuanian translation of J. Endzelīns, Baltu valodu skaņas un formas, Riga, 1948); Chr. Stang, Verbum, 110ff., 194; H. Kölln, Opositions of Voice, 36. See Ch. R. Barton, – IF LXXXV 257, for a criticism of this view.

Even in Lithuanian the irregular \bar{e} -preterits have been allowed to survive up to the modern language only in some very common verbs. Some \bar{a} -preterits are also attested (gimau "I was born", púolo "fell"), but they are not common and can be explained as occasional regularizations. For other, less salient verbs the \bar{e} -preterit is attested only in some dialects or in older texts, but have been finally eliminated in favor of the regular types (*dìlė*, svìlė, tãpė, skãtė). The process of regularization has been simply carried out to completion in Latvian (with the important exception of nomirre in Elger).

With the \bar{e} -preterit attested both in Lithuanian and Latvian we have $a\tilde{u}na$, $a\tilde{u}ti$, $\tilde{a}v\dot{e}$ "put on (shoes)" (Latv. $\dot{a}ut$, $\dot{a}uju/\dot{a}unu$, $\bar{a}vu$ (\bar{e})/avu (\bar{a})). Only in Latvian $n\tilde{a}kt$, $n\tilde{a}ku$, $n\tilde{a}cu$ "come" (Lith. $n\delta kti$, $n\delta ksta$, $n\delta ko$ "ripen").

6.2.1. For the small set of *giñti* "chase, drive (cattle)", *miñti* "recall", *giñti* "be born", *dìlti* "wear out", *svìlti* "scorch" we could set a regular pattern pres. TER*a* : pret. TR*ē*. Other verbs belonging to this class (Latv. *dçmu/diŵstu, dimu* "dröhnen", *slavu, sluvu* "get known", Lith. *výti, věja, vìjo* "chase; twist") would not contradict this rule. But such a conjugation pattern would be curiously in contradiction with the *ā*-preterit of the type *ke˜rpa* : *ki˜rpo* (as well as with that of OCS *berq, bbrati* "take", *ženq, gъnati* "chase").

We have seen that the \bar{e} -preterit of other classes of simple thematic presents can be accounted for as a relatively recent innovation (sometimes a very recent innovation), attributable to the fact that the \bar{e} -preterit was felt as characteristically transitive. The same explanation is not possible for the type ginti, gena, gine. Only ginti and minti are transitive (as well as výti, which is not pertinent here), but minti belongs to a typically "middle" sphere of meaning. All other are intransitive (ginti, dilti, svilti). Notice as well that the paradigm of minti, mena, mine and ginti, gema, gime must be an innovation (no thematic or athematic present was inherited from Proto-Indo-European), and it would be surprising that they chose to follow the paradigm of the isolated type of gintiinstead of, say, that of mirti (as ginti finally did). The same difficulties are found when we turn to the other verbs included in this section (mirti, virti, puole, etc.).

Leaving aside, for the moment, the case of $gi\tilde{n}ti$, and focusing on the verbs with "irregular" \bar{e} -preterits with a better etymology, I see two possibilities of dealing with these verbs within the theory defended in this article:

a) (Some of) these verbs could be directly related to the Greek "passive" η -aorist¹⁹. Lith. $min\dot{e} = Gk$. $\dot{\epsilon}\mu\dot{\alpha}\nu\eta$ "went mad" would even be a direct word equation, but the Indo-European root aorist is preserved in GAv. mantā, Ved. ámata "remembered" and is certainly the starting point from which we should try to explain the Baltic

¹⁹ So, for instance, M. P e t e r s, Sound law and analogy. Papers in honor of Robert S. P. Beekes on the occasion of his 60th birthday, Amsterdam, Atlanta, 1997, 211¹², J. J a s a n o f f, – Sprache, XLIII 165⁷¹.

paradigm. Most other verbs with a decent etymology also point very clearly to an Indo-European root aorist. The putative scenario of how, why and from where did they adopt an "*- eh_1 -aorist" remains to be worked out²⁰. As often repeated in this and other treatments, the Baltic \bar{e} -preterit can hardly be linked to the Indo-European "*- eh_1 -complex" as a whole. It seems very doubtful to me that the isolated verbs we are dealing with here should have such an origin.

b) (Some of) these verbs inherited an intransitive *-ie/o-presents pared with a "regular" zero grade \bar{a} -preterit (which for the most part had replaced earlier root aorists). Then *-i- was adopted from the present, as happened with all ia-presents, in spite of their intransitive value. Then *- $ii\bar{a}$ would have been regularly contracted to *- \bar{e} , but the important difference with the productive, typically transitive class of ia-presents is that they preserved the old ablaut pattern²¹. Later, the ia-presents were replaced by more productive formations, eventually triggering the adoption of the \bar{a} -preterit as well. I believe that this alternative is more in accordance with the inner evidence of Baltic, and it is the one I will be arguing bellow.

6.2.2. From a comparative point of view, an inherited *-*jelo*-present is certain in some cases (* $g^w m$ -*jé*-ti, *mn-*jé*-tor, *mr-*jé*-tor) and possibly in most other. But the presents actually attested in Baltic cannot be recent themselves: the paradigm of vérda is entirely isolated, *miršta* is the only *sta*-present affected by the *ruki*-rule, the type of *gẽma*, *mẽna*, *gẽna* is also unusual. If a *ia*-present is to be made responsible for the *ē*-preterit, its replacement must be considerably old, in a way that doesn't agree with the current morphology of the modern Baltic languages. All the verbs under consideration call for some comment.

1) *aŭti, aŭna, ãvė*, "put on (shoes)" can be explained from a *-*jelo*-present, still attested in Latvian *auju* and assured for the parent language by OCS *ob-uti, ob-ujo*, Lat. *induō*, *exuō*. Arm. *agaw* "got dressed" (pres. *aganim*) attests the original root athematic aorist.

2) The paradigm of *virti*, *vérda*, *virė* "boil (tr./intr.)" is isolated within Baltic, but not the present *vérda* itself: cf. (*pa*)*véldėti*, *-vélda* "inherit" (: OLith. *velmi* "wish; allow"), *mérdėti*, *mérda* "lie dying" (: *miřti* "die"), *skéldėti*, *skélda* "crack" (: *skilti* "split, crack"), *peldéti*, *példa* "save, spare" (: *pilti* "pour"), etc.

Probably these *da*-present were a derivative formation originally restricted to the present them (the preterit and infinitive being supplied by those of the basic verb). In

²⁰ In addition, Jasanoff (*Sprache* 43, 2002–2003, 161ff.) has recently pointed out that the Greek η -aorist is more in isolation than traditionally supposed.

²¹ The lack of length in these preterits could be explained in several ways. Either Kuryłowicz' analogy didn't apply here (most roots are *anit* and the verbs under consideration did not belong to the principal, productive class of transitive *ia*-presents), or Larsson's retraction of the *ictus* yielded a long vowel that was later eliminated in favor of the vocalism of the infinitive.

this case, either *vérda* would be an archaism that has replaced the original present (**viria* < * μrH -*jé*/ó-?), or we are facing a secondary conflation of a basic verb *virti*, **viria*, *virė* and the derivative **vérdēti*, *vérda*, **vérdējā*²².

3) miršta must belong to the oldest layer of sta-presents that served as the starting point for its later expansion. While the origin of the sta-suffix remains unclear, it is conceivable that it originated as a derived formation to a basic present (via resegmentation of the 3 Sg. middle *- h_1s -to of a desiderative?). It is important to emphasize that the old *-*jelo*-present * m_r -*jé*-tor (Ved. mriyate, lat. morior) is still attested in Slavic (OCS Zo. umbŕetu, Slovenian mrjèm)²³.

4) As for the type *miñti*, *mẽna*, *mìnė* "recall", *giĩti*, *gẽma/gìmsta*, *gìmė* "be born", the replacement of an inherited zero grade *-*ie/o*-present by a full grade thematic present²⁴ has to be later than the creation of the \bar{e} -preterit (< *-(*i*)*i* \bar{a}), but cannot be recent.

I assume that there was a much larger class of verbs like $*bera : *bir\bar{a}$ beside the type $*peišia : *piš(i)\bar{a}$ (as made probable by Slavic), that were later replaced by more productive formations. Verbs like $*gimia : *gimij\bar{a}, *minia : *minij\bar{a}$ were disfavored because *ia*-presents began to be felt as characteristically transitive. They were attracted to the (diathetically neutral?) class of $*bera : *bir\bar{a}, *gena : *gin\bar{a}$ and the new presents *gema, *mena were formed to them. Later, the type miniti, mena, mine was almost eliminated.

This would explain why we have preterits like $min\dot{e}$ and $gim\dot{e}$. It is impossible to tell whether verbs like gulti, tapti, skasti, dilti or svilti (in spite of OE swelan "kindle, inflame") owe their aberrant \bar{e} -preterit to an earlier *ia*-present, but this remains a distinct possibility. The \bar{e} -preterit of ginti, gena, $gin\dot{e}$ must be analogical (the type was fully recessive, and it is easy to understand that the transitive ginti adopted the \bar{e} -preterit of the other verbs belonging to this class).

Finally, I leave it an open question whether $p\acute{u}ole$ "fell" and Latv. $n\widetilde{a}cu$ "came" can be explained along the same lines.

7. In this article I have been concerned with a very recent, specifically inner Baltic stage of the development of the Baltic preterit²⁵. If our views are accepted, there is an

²² If OCS vbri-, vbrěti "boil" belongs to the original core of *-ĭ-presents (perhaps to be equated directly with Hitt. urāni "burns (intr)" < *urH-ór), one could adduce the frequent occurrence of this type beside middle *-*ie/o*-presents as an argument for a Baltic *viria (e.g. *mn-ór > Goth. munan, -aiþ, Lith. miniù, minéti, OCS mbni-, mbněti beside *mn-jé-tor > Ved. mányate, Gk. µaívoµaı, OIr. ro-moinethar; *lip-ór > Toch. B lipetär, Goth. liban, -aiþ, OCS pri-lbpljǫ, -lbpěti beside *lip-jé-tor > Ved. lipyáte, • OCS pri-lbple-, etc.).

²³ Cf. Barton, – IF LXXXV 262ff.

²⁴ In a way similar to that of Germanic, e.g. $*g^*m$ - $ie/o \rightarrow OE$ cuman \rightarrow Goth. qiman, *sed- $ie/o \rightarrow OE$ sittan \rightarrow Goth. sitan, etc.

²⁵ Partly because of this reason I have not discussed all theories on the Baltic preterit, but only those that seem to me to be more directly dependent on the Baltic facts as attested.

important inference to be made at the comparative, extra Baltic level. There is nothing in the Baltic preterit *qua* preterit that can be related directly or indirectly to the Proto-Indo-European aorist or the perfect (nor are there any elements of the perfect in the Slavic aorist). The only possible exception I am aware of is $\tilde{e}m\dot{e}$ (see footnote 16). Zero grade preterits to some types of thematic presents like *per̃ka* : *pir̃ko*, *gẽma* : *gìmė* must be attributed, in my view, to the Balto-Slavic \bar{a} -aorist. Relics of the aorist and the perfect should be sought not in the preterit as such, but in the form of independent verbs.

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