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LITHUANIAN *žinóti* “TO KNOW”*

1. The root etymology of Lith. *žinóti*, Latv. *zinât*, OPr. *-sinnat* “to know” is perfectly clear (**ġneh*₃- “recognize, know”).

Lithuanian *žinóti*, *žino*, *žinojo* belongs to a small group of “semithematic”¹ verbs characterized by a present in **-ã(-)* and a second stem in **-ã-* together with *bijóti*, *bijo* “fear”, *ieškóti*, *ieško* “search for”, *sáugoti*, *sáugo* “take care of” and some other.² In Daukša one finds 1 pl. *žinomé*, 2 pl. *žinoté*, perhaps pointing to an originally mobile paradigm.

The Latvian facts are more interesting. Beside the normal paradigm *zinât*, *zina*, *zinâja*, fully agreeing with that of Lith. *žinóti*, the dialects attest the unexpected plural forms 1 pl. *zinim*, 2 pl. *zinit* (beside regular *zinâm*, *zinât*)³ in addition to a thematic present *zinu*, *zin*, *zin*, *zinam*, *zinat*.

In Old Prussian we have the compounds *po-sinnat* “bekennen”, *er-sinnat* “erkennen”. The attested present forms (1/3 sg. *-sinna*, 1 pl. *-sinnimai*, 2 pl. *-sinnati*) have been the subject of some controversy. The 1 pl. *-sinnimai* has frequently been directly equated with dialectal Latv. 1 pl. *zinim* (in spite of the 2 pl. *-sinnati*), but the parallel of the verb “to have”, 3 sg. *imma*, 1 pl. *immimai*, 2 pl. *immati* (: Lith. *iĩti*, *ĩma*), seems to indicate that synchronically *-sinnat* built a thematic present in Old Prussian (probably through shortening of Proto-Baltic 3rd person **žinã*) and doesn’t counsel equating OPr. *-sinnimai* with Latv. *zinim*.

Beside the stative verb meaning “to know” there is an inchoative Lith. *pa-žinti*, *pa-žĩstu*, Latv. *pa-zĩt*, *pa-zĩstu* “get to know”. Old Prussian *-sinnat*

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¹ I use this term only as a descriptive label.

² It is usual to separate these verbs from the slightly more common type of deverbative duratives with lengthened root vowel and acute intonation like *klũpoti*, *-o* “be on one’s knees” (: *klũpti*, *klũmpa* “kneel down”), etc. (e.g. LKG II 243; Otrębski 1965, 341).

³ Cf. Endzelin (1922, 618; 1951, 801f.).

corresponds in its usage to Lith. (-)pa-žinti.⁴ This fact may point to an exclusively East Baltic origin of the inchoative, specially considering the great productivity of *sta*-presents in Lithuanian and Latvian, but since *sta*-presents are so sparsely attested in Old Prussian in any case a secondary loss in this language cannot be absolutely excluded either.

2. There is every reason to take Lith. *žinóti* seriously as continuing an Indo-European verbal formation. The traditional and still standard view derives Lith. *žinóti* from an Indo-European nasal present to be equated with Ved. *jānāti*, YAv. 3 pl. *paiti.zānānti*, OPers. *adāna*,⁵ Toch. A *knānaš*,⁶ OIr. *ad-gnin*,⁷ and perhaps (with very strong analogical remodeling) the Germanic preterito-present Go. *kann/kunnun*.⁸ The appeal of this equation is immediately clear: it derives *žinóti* from a securely reconstructed Indo-European present stem. But if we start from a canonical nasal present **ǵn̥-né-h₃-ti / *ǵn̥-n-h₃-énti* Lith. *žinóti* poses at least two serious problems: the Baltic stem **žinā-* (< **žin-nā-*) instead of the phonetically regular **žinō-*, and the dialectal Latvian plural forms 1 pl. *zinim*, 2 pl. *zinit*.

3. If taken at face value, Baltic **žinā-* would point to **žin-nā- < *ǵn̥[h₃]-néh₂-ti*, but, as already observed, this is hardly reconcilable with the current reconstruction of Indo-European nasal presents.

In older days of Indo-European studies a reconstruction like **ǵn̥[h₃]-néh₂-ti* was less problematic than it is now. The nasal present of a root like **ǵneh₃-* could simply be taken to contain a suffix **-nā-/*-nə-*, the more so because the theoretical alternatives **-nō-/*-nə-* and **-nē-/*-nə-* seemed not to be

⁴ Cf. Mažiulis, PKEŽ I 288, III 328, for correspondences of OPr. *-sinnat* with Lith. (-)pa-žinti in Vilentas' translation of the Enchiridion.

⁵ See Mayrhofer, EWAia I 601, with references, on Indo-Iranian **jānāti* instead of the phonetically regular **janāti*.

⁶ See Hackstein (1993), with references, for attestations of the Toch. A present *knāna-* and the general paradigm of this verb.

⁷ See McCone (1991, 21f.) on the prehistory of OIr. *-gnin*.

⁸ The assumption of a nasal present would explain the geminate *-nn-*. Under any theory the singular must have been fully remade on the plural *kunnun*, but it is unclear how the 3 pl. *-un* can be justified from **ǵn̥-n-h₃-énti*. Harðarson (1993, 80f.) assumes influence of the nasal present **kunnō-/*kunn-* in the weak stem of the inherited perfect **(ke-)knō-/*(ke-)kun-*. He further derives ON *kná* "can" directly from the singular **(ke-)knō-*, but ON *kná* is usually equated with the *verbum purum* OE *cnāwan*, OHG *ir-knāen* (< **knē-ja-* "know, perceive") and assumed to have been remodeled on the preterito-present *má* "be able, can; may" (so e.g. Seebold 1970, 302f.).

attested with certainty.⁹ But it is now generally acknowledged that roots *ultimae laryngalis* made their nasal presents in exactly the same way as roots ending in a stop (type Ved. *yunákti*, *juñjánti* “join” < **iu-né-g-ti*, **iu-n-g-énti*, from **ieug-*), by infixing an ablauting nasal infix into the root in zero grade (e.g. Ved. *punáti*, *punánti* “clean, purify” < **pu-né-H-ti*, **pu-n-H-énti*, from **peuH-*).¹⁰ Even within this perspective the reconstruction **ǵn̥[h₃]-néh₂-ti* apparently demanded by Lith. *žinóti* was thought to provide support for Meillet’s view that nasal presents to roots *ultimae laryngalis* were originally restricted to roots ending in °*h₂-* (1925; 1937, 217). In conformity with this view, some authors took the nasal present of **ǵneh₃-* to be a secondary creation, a dialectal suffixal **-neh₂-* present of the type Ved. *badhnáti* “binds” (built to the *aniṭ* root *bandh-* < **b^hend^h-*), reflecting the post-Indo-European productivity of **-neh₂-* as an independent suffix.¹¹ But even if Baltic and eventually Germanic were not included in the set, the agreement of Indo-Iranian, Tocharian and Celtic guarantees beyond reasonable doubt the prototypic character of the nasal present of **ǵneh₃-*. The fact that in addition to **ǵn̥-né-h₃-ti* a *ske/o*-present **ǵn̥h₃-ske/o-* is fairly well attested (Gk. γιγνώσκω, OPers. *xšnāsa-*, Lat. (*g*)*nōscō*, Alb. *njoh*, Arm. *čanač^{em}*)¹² represents no problem for the Indo-European character of **ǵn̥-né-h₃-ti*, as it is quite common that two or more presents need be reconstructed for a given Indo-European verbal root. In any case, further

⁹ So e.g. Brugmann (1902/04, 511).

¹⁰ This analysis goes back to de Saussure (1879, 239ff.). For our present purposes it is irrelevant whether the nasal infix had ablaut **-ne-/*-n-* from the very beginning or was originally a non-ablauting **-n-* infixated to a root with the same ablaut pattern as that of the root aorist (thus implying that **iu-né-g-ti* is secondary for earlier ***ieu-n-g-ti*).

¹¹ So e.g. Vendryes (1935/36), Stang (1942, 145; 1966, 323), Fraenkel (1950a, 87; 1950b, 258f.).

¹² No position need be taken here on the interpretation of Hitt. *ganness^{mi}* “recognize, find” as an *s*-present (desiderative) with “Narten” root ablaut, as advocated by Jasanoff (1988; 2003, 133, 192), or as a sigmatic aorist to be equated with Ved. *ajñāsam*, Toch. A *kñasäšt*, as per LIV² 168f. Most languages continuing a *ske/o*-present show an unexpected root vocalism that at least in some cases can be explained as more or less easily understandable analogical remodeling starting from a perfectly regular **ǵn̥h₃-ske/o-* (see the various solutions offered by Klingenschmitt 1982, 68⁶⁻¹⁰), but can also be interpreted, with Jasanoff, *loc. cit.*, as reflecting the influence of **ǵnēh₃-s-/*ǵneh₃-s-* in the root vocalism of the more recent *ske/o*-present (**ǵnēh₃-ske/o-* > Alb. *njoh*, Arm. aor. *caneay*, **ǵneh₃-ske/o-* > Lat. (*g*)*nōscō*).

research has led to the general modern abandonment of Meillet's view that nasal presents to roots *ultimae laryngalis* were restricted to $*-ne-h_2-$.¹³

Accordingly, it is unavoidable to start from a regular $*\hat{g}\eta\text{-né-}h_3\text{-ti}$. Strunk's suggestion that $*\hat{g}\eta\text{-né-}h_3\text{-ti} > *žin(n)\bar{o}-$ could give $*žin\bar{a}-$ directly (1967, 39) is not compatible with our current understanding of Baltic historical phonology.¹⁴ In most treatments the problem is not directly addressed or a reconstruction $*žin\text{-}\bar{n}\bar{a}-$ *vel. sim.* is given without further commentary,¹⁵ probably under the assumption that at some stage of its development $*žin\text{-}\bar{n}\bar{o}-$ was analogically attracted to the class of $-na-h_2$ -presents, as made explicit by some authors.¹⁶ Given the lack of secure parallels, a general replacement of presents in $*-no-h_3-$ and $*-ne-h_1-$ by those in $*-na-h_2-$ in pre-Baltic or Balto-Slavic cannot in principle be excluded, but it cannot be better supported either and there doesn't seem to be any particularly evident motivation favoring such a process. The putative replacement of $*žin\text{-}\bar{n}\bar{o}-$ by $*žin\text{-}\bar{n}\bar{a}-$ is thus bound to remain uncomfortably *ad hoc*.

A different approach has been essayed by Bammesberger. Since synchronically *žinóti* belongs to the type of *bijóti*, *ieškóti*, *sáugoti*, etc., he assumes a secondary transfer to this class. In (1988, 113) he takes the 2 sg. $*žin\bar{o}+ei > žinai$ as the starting point, while in (1993, 87f.) he prefers to start from the present participle $*\hat{g}\eta\eta h_3\text{-ont-/-}\eta\text{-} > *žin(n)\text{ant-}$ at a time when the paradigm was still characterized by an alternation $*žin\bar{o}-/*žin-$ beside $*bij\bar{a}-/*bij-$. I doubt none of the forms adduced by Bammesberger could provide a sufficient motivation for the transfer into the class of *bijóti*. In addition, notice that the present participle is attested as *zinis* in Latvian dialects (see below).

4. As far as the second problem is concerned, the dialectal Latvian plural forms 1 pl. *zinim*, 2 pl. *zinit* are *lectio difficilior* vis-à-vis the regularly formed Latv. *zinâm*, *zinât*, Lith. *žinome*, *žinote*, and should in principle be embraced under any theory on the origin of *žinóti*.

¹³ Cf. for instance Cowgill (1965, 154–157), Strunk (1967, 56–59 and *passim*), Oettinger (1979, 150–163), McCone (1991, 12–23).

¹⁴ Cf. Stang (1966, 44, 47ff.).

¹⁵ E.g. Zinkevičius (1981, 94) [$*\hat{g}\eta\text{-}\bar{n}\bar{a}-$], Kortlandt (1985, 237; 1989, 104) [Balto-Slavic $*žinaHmi$, $*žinHmes$].

¹⁶ So Klingenschmitt (1982, 177²¹) [$*žin\bar{a}-$ for $*-n\bar{o}-$ after zero grade $*žin- < *\hat{g}\eta\text{-}n\text{-}h_3-$ or $*žina- < *\hat{g}\eta\text{-}n\text{-}\partial_3-$], Derksen (1996, 338), Babik (2004, 73ff. [apparently assuming generalization of $*-na-h_2-$ over $*-ne-h_1-$, $*-no-h_3-$ already in Indo-European, which is patently false]).

In the older literature the dialectal Latvian present paradigm *zinu* / *zinim* (and eventually also OPr. *-sinna* / *-sinnimai*) was frequently equated directly with the stem alternation of Vedic *jānāmi* / *jānīmáḥ*.¹⁷ The possibility of an ablaut pattern **-nāi-* / **-nī-* for some verbs of the Vedic 9th Class of presents and its possible survival in Latv. *zinim*, OPr. *-sinnimai* could enjoy some appeal at the end of the 19th century and beginning of the 20th,¹⁸ but it never became generally accepted and today it is of course entirely untenable. It has long been recognized that the *-ī-* of Ved. 1 pl. *jānīmáḥ*, 2 pl. *jānīthá* is the reflex of a vocalized laryngeal and that the reconstructable forms 1 pl. **ĝn̥-n-h₃-més*, 2 pl. **ĝn̥-n-h₃-t(h₂)é* would give Baltic **žin(n)-mē*, **žin(n)-tē*.¹⁹

As it is well known, an unexpected *-i-* in the plural is not restricted to *zināt* alone, but is also encountered in Latvian dialects for two other verbs with a second stem in **-ā-*, *raûdāt*, *raûdu* “cry, weep” and *dziêdāt*, *dziêdu* “sing”: 1 pl. *raûdim*, *dziêdim*, 2 pl. *raûdit*, *dziêdit*, as well as 1 sg. *raûžu*, *dziêžu* (a 1 sg. *ziņu*, on the other hand, is rare). The antiquity of the *i-* forms is supported by the dialectal present participle *raûdis*, *dziêdis*, *zinis*,²⁰ and by the occasional transfer of these verbs to the *ē-* inflexion **raudēt*, **dziedēt*, **zinēt*.²¹ In Old Lithuanian *raudóti*, *ráumi* “weep”, *giedóti*, *gíemi* “chant” belong to the most firmly established athematic presents. Endzelin (1928; 1938, 495; 1948, 182; 1951, 801) explained the plural *i-* forms of *raûdāt* and *dziêdāt* as abstracted from a 3 pl. **raud-int*, **geid-int* < **-nti*, where *-i-* was reinterpreted as part of the stem and extended as a union vowel to the other plural forms. He further compared OPr. 1 pl. *waidimai*, 2 pl. *waiditi* (2 sg. *waisei*, inf. *waist* “know”) and the irregular Slavic verb *spati*, *spiti-* “sleep”.

A similar explanation could be offered for Latv. *zinim*, *zinit*. This step was not favored by Endzelin himself, who stuck to the old comparison of Latv.

¹⁷ E.g. Trautmann (1910, 280), Endzelin (1922, 618; 1938, 179; 1943, 111; 1948, 183; 1951, 801f.), Fraenkel (LEW 1311; 1950a, 95). This view is still accepted by Toporov (1979, 86).

¹⁸ See the references given by Trautmann, *loc.cit.*, and Endzelin, *loc.cit.*

¹⁹ So already Stang (1942, 145).

²⁰ Cf. Endzelin (1922, 718ff.; 1951, 929ff.).

²¹ See the facts assembled by Endzelin (1933). I remain skeptic of Schmid's attempt to diminish the validity of Latv. *zinim*, *zinit* (1963, 7), that he seems to consider a specifically dialectal Latvian phenomenon (although no explanation is actually offered). The range of forms involved points to the historical reality of the *i-* forms of *raûdāt*, *dziêdāt* and *zināt*.

zinim with Ved. *jānīmáḥ*. However, while still maintaining the derivation from a nasal present, in the *addenda* to his *Senprūšu valoda* (p. 131) he considers the possibility of a Baltic plural paradigm **žin-mē*, **žin-tē*, **žin-int(i)* < **žin-ŋt(i)*, with extension of *-i-* as in Latv. *raûdim*, *-it*, *dziêdim*, *-it*. The difficulty of this explanation, of course, is that a 3 pl. **ĝn̥-n-h₃-ŋti* is incompatible with the current reconstruction of the 3rd plural of nasal presents (**ĝn̥-n-h₃-énti* > Ved. *jānánti*).²² Such an explanation is nevertheless mentioned as a possibility by Schmalstieg (2000, 119), and defended by Babik (2004, 76). Babik postulates that in Balto-Slavic the 3rd plural of athematic verbs had been generally reshaped as **-ŋti*. However, none of the few examples he gives in support of this view is probative: the putative Balto-Slavic 3rd plural stem of old perfects like **uaid-i-*, **gor-i-*, underlying OPr. 1 pl. *waidimai*, 2 pl. *waiditi* and the *i*-inflexion of OCS *goritъ*, can go back, in the last instance, to a 3rd pl. **-ř*. The prehistory of (Lith.) *ráumi* and *gíemi* is less clear, but a Narten present can be considered a distinct possibility (see below §6.4.). In any case, this view would be unable to explain why no more traces of an athematic 3 pl. **-inti* (as well as its extension to the 1st and 2nd plural) are attested among inherited active athematic presents of the normal type, but are restricted to a handful of verbs, some of which certainly do not go back to athematic presents.

A different approach to Latv. *zinim*, *zinit* was essayed by Stang (1942, 145f.; 1966, 323f.). Stang views the apparent *i*-inflexion of Latv. *raûdim*, *-it*, *dziêdim*, *-it* as a *substitute* for the old athematic inflexion. Accordingly, he interprets *zinim*, *-it* as evidence for an old paradigm **žināu*, **žināi*, **žinā*, **žinmē*, **žintē*, which would provide support for the assumption of an old nasal present **ĝn̥nāt* : **ĝn̥nāmē*. The fatal objection was already noticed by Endzelin (1943, 131): had Baltic inherited a paradigm with 1 pl. **žinmē*, 2 pl.

²² A further possibility of obtaining a pre-Baltic **ĝn̥-n-h₃-ŋti* would be to postulate a class of Indo-European acrostatic nasal presents, a possibility tentatively enounced by Oettinger (1979, 169f.) and Klingenschmitt (1982, 176f.²¹), and defended by Isebaert (1985), who in fact reconstructs a nasal present **ĝn̥-n-éh₃-ti* / **ĝn̥-n-éh₃-ŋti* (349f.). It is doubtful whether any of the theoretical preforms would led to pre-Baltic **žin(n)-int(i)* – unless resorting to an even more problematic Schwebeablaut **ĝén-ŋ-h₃-ti* / **ĝén-ŋ-h₃-ŋti*. In any case, the evidence in favor of acrostatic nasal presents can be termed inconclusive at best, and in the case of the various reflexes of the nasal present of **ĝneh₃*- it would amount to too much unwarranted analogical rebuilding to be a credible alternative.

**žintē* beside **žinā(-t)*, we would certainly expect the plural to be regularized as **žināmē*, **žinātē*, as it indeed happened in Lithuanian and also for the most part in Latvian. The same criticism holds for *raûdim*, *-it* and *dziêdim*, *-it*. Notice that Old Lithuanian athematic presents are not replaced by *i*-presents unless they are supported by a second stem *-ė-* (and here in concurrence with *ėja-* and *a-*presents).

Apart from these, I am aware of very few attempts to explain Latv. *zinim*, *zinit*. Schmalstieg (2000, 119f.) suggests the possibility of an *ē*-verb **ġn̥-ē-* beside *žinóti*, from which the *i*-forms would have been borrowed. **ġn̥-ē-* could find a correlate in the Germanic 3rd Weak Class Go. *ga-*, *uf-kunnan*, *-aiþ* “recognize”, but it is doubtful whether Go. *-kunnan* can really support the reconstruction of a pre-Baltic **ġn̥-ē-*, and the contamination of both present stems **žini-* and **žinā-* would remain to be explained. Karulis (1992, 1196) takes *žinóti*, *zinât* to be an original *i*-verb, but this is of course an oversimplification that wouldn’t explain the stem **žinā-*. Vaillant (1966, 363) considers Latv. *zinim*, *zinit* secondary neologisms, perhaps created on analogy of *minêt* “mention”, but such a recourse to analogy in order to motivate an aberrant paradigm can hardly be taken seriously.

Kortlandt (1987, 109) starts from the following paradigm for early Prussian: 1 sg. **zinā*, 2 sg. **zinā(se)i*, 3 sg. **zināi*, 1 pl. **zinima* < **zininma*, 2 pl. **zinte* < **zinnte*, 3 pl. **zina* and suggests that “the difference between the 1st and 2nd pl. forms must have arisen as a result of the different chronological order of syllabification and simplification of the respective consonant clusters”. The 2 pl. **zinate* (*er-sinnati*) would have been remodeled on the 3 pl. **zina*. In another publication (1989, 104) he observes that OPr. *-sinnimai*, Latv. *zinim* “show that the original apophonic alternation between sg. *-nā-* from **-neH₂-* and pl. *-n-* from **-nH₂-* was preserved in Baltic”, thus perhaps implying that the same explanation offered for Old Prussian is valid for Latvian and that the 2 pl. *zinit* is analogical after *zinim*. In any case, Kortlandt’s account is based on too many questionable assumptions to be credible. I doubt forms like **ġn̥-n-h₂-més*, **ġn̥-n-h₂-té* (assuming a problematic replacement of **-n(e)-h₃-* by **-n(e)-h₂-*) would have led to anything else than to **žin-mě*, **žin-tě* quite early, as more or less explicitly assumed by all proponents of the nasal present approach.

5. In brief, derivation of *žinóti* from a nasal present is forced to *ad hoc* and dubious assumptions in order to account for the Baltic stem **žinā-* and even more for the dialectal Latvian plural forms *zinim*, *zinit*. The attractiveness of a

connection of *žinóti* with Ved. *jānāti* etc. was stronger in earlier days of Indo-European studies, when it was compatible with views that further progress has shown to be false. Nevertheless, it remains by far the most favored approach in the literature. Alternatives to this view can be reviewed here.

Vaillant (1966, 264, 362) derives *žinóti* from a Balto-Slavic stem **žnō-* continued directly in OCS *znati*, *znaje-*. It would have taken its root shape **žin-*, generalized in Baltic with few exceptions (Latv. *znuôts* “son-in-law”), from the inchoative Lith. *pa-žinti*, Latv. *pa-zīt*, and would have been attracted to the verbal class in *-āti*. But there is no particularly clear motivation for the transformation of a putative Baltic (Lith.) ***žnúoti*, ***žnúoju* in the way envisaged by Vaillant. Apart from the dubious explanation of the root shape **žin-*, it must face the same problems that the nasal present theory does.

Schmalstieg (2000, 121) suggests that an aorist (or perfect) **ĝnō-* would give Baltic **žinō-* through a Sievers’ variant **ĝŋō-*. With addition of the personal endings we would have 1 sg. **žinōu*, 2 sg. **žinōi* > **žinou*, **žinoi* > **žinau*, **žinai*, which would provide the motivation for the transfer to the type *bijóti*. There are several dubious aspects in this scenario. Recourse to a Sievers’ variant is *ad hoc*. Had Baltic inherited a stem **ž(i)nō-*, I would have expected regularization as a *ia*-present **ž(i)nō-ja-* rather than a cursory addition of the personal endings. The possibility of deriving *žinóti* from a root stem **ĝ^enō-* (and Latv. 1 pl. *zinim* from **ĝ^enāmē*) was already discussed by Stang (1942, 146²), where he considers that **-ā-* could come from **-ō-*, a view that he later abandoned. But, as Stang observes, **ĝneh₃-* was an aoristic root (cf. Gk. *ἔγνω* etc.), that would not in principle have been recategorized as a present in Baltic.

An entirely different approach to *žinóti* has been recently proposed by Smoczyński (2000, 93¹¹⁸; 2001, 158, 171, 369f.⁹; 2005, 50ff., 336ff.), followed by Ostrowski (2001, 69; 2006, 51). Smoczyński interprets *žinóti* as a “normal” *ā*-stative **žinātēi*, **žināja*, **žinājā* derived from the inchoative Lith. *pa-žinti*, Latv. *pa-zīt*. The same interpretation is offered for Lith. *bijóti(s)*, Latv. *bijātiēs*, OPr. *biātwei* “fear”, where the derivational basis would have been lost in Baltic. The actually attested present forms Lith. *žino*, Latv. *zina*, OPr. *-sinna* would derive from *(*pa*)*žināja* through apocope of the final present suffix *-ja*. As for the inchoative *pa-žinti*, *-žįsta*, *-žino*, Smoczyński takes it as a denominative from the verbal adjective *pa-žintas* < **ĝŋh₃-tó-* (*pažint-sta* > *pažins-sta* > *pažįsta*, with, I suppose, infinitive *-žinti* and preterit *-žino* through false resegmentation as *pažin-sta*). I fail to see the need of taking *pa-žinti* as a

denominative. Ostrowski (2006, 50f.) prefers taking *pa-žinti* as built to the preterit *pa-žino*, which would continue a thematic aorist based on the 3rd pl. **ǵnh₃ónt* of the original root aorist. However, neither in Slavic nor in other languages are thematic aorists usually derived from roots ending in **°EH-*, and the parallel of preterits like *stó-jo* “stood up” or *dé-jo* “put” indicates that in Baltic as well this was not the usual way of dealing with inherited root aorists to roots like **ǵneh₃-*. In any case, the East Baltic inchoative Lith. *pa-žinti*, Latv. *pa-zīt* is too trivially explained as an innovation to be a credible derivational basis for *žinóti*, a view partially supported by OPr. *-sinnat*, which corresponds in its usage to Lith. *(-)pa-žinti*. The dialectal Latvian plural forms *zinim*, *zinit* are not mentioned by Smoczyński or Ostrowski and, in general terms, it is hardly credible that all Baltic languages would have agreed in transforming a perfectly regular *(*pa*)*žināja* into a verb belonging to an unproductive type (as in Lithuanian and Latvian) or even into an irregular verb (as in dialectal Latvian).

6. As an alternative to the derivation of *žinóti* from a nasal present, Bammesberger (1993, 88¹⁴) mentions the possibility of deriving it from a perfect **ǵe-ǵnō-*/**ǵe-ǵnə-* (Ved. *jajñáu*), a possibility considered very likely by Schmalstieg (2000, 120f.) as well.²³ A parallel would be furnished by *bijóti* “fear”. In what follows I will argue for the correctness of this view, which in my opinion offers additional advantages for explaining the actually attested forms of *žinóti* in the Baltic languages and has interesting implications for the reconstruction of the Balto-Slavic verb in more general terms.

6.1. As correctly appreciated by Bammesberger and Schmalstieg, it is important to emphasize that *bijóti*, *bijo* “fear” offers a virtually perfect parallel for the derivation of *žinóti* from a perfect, as the morphology of both verbs is virtually identical. The prehistory of *bijóti* is reasonably clear. It continues the perfect of the root **b^heiH-* cognate with Ved. *bibhāya*, YAv. ptcp. *biβiuuā*, OCS *bojati*, *boji-* *sę* “fear”, and the Germanic 3rd Class Weak verb OHG *bibēn*, OE *bifian*, OIc. *bifa* “tremble”, which almost certainly arose through resegmentation of **ǵe/iǵai(-ǵi)* (< **b^he/i-b^hóiH-e*) as **ǵe/iǵ-ai-ǵ(i)*. A *sta-*inchoative is not attested in Lithuanian, but an inchoative *bītiês*, *bīstuôs* has been created in Latvian to the stative *bijât*, *bijāju*.

Taking this view seriously entails providing an explanation for the contrast between the *o*-grade and regular *i*-inflexion of Slavic *bojati*, *boji-* *sę* and the

²³ I don't understand the criticism of this idea by Babik (2004, 76).

zero grade and inflexion as a “semithematic” \bar{a} -verb of Baltic **bijāti*. There is hardly any need to say that a theory deriving both the Slavic and the Baltic verb from a single Balto-Slavic paradigm should be given priority over positing two independent formations (which would basically amount to take *bijóti* as a somewhat unmotivated derivative of a lost **bajéti*). Had Baltic inherited a regular \check{i} -verb as that of Slavic, the change of inflexion into an \bar{a} -verb would not be easy to motivate. Slavic *bojati* is universally derived from a second stem **boj-ē-ti*. Although phonetically irreproachable and perfectly in accordance with the rest of Leskien’s Class IV B verbs, a case for **boj-ā-ti* can be advocated from the existence of two Slavic Class IV B verbs with an irregular second stem in **-ā-*: *svpati, svpi-* “sleep”, and *svcati, svči-* “piss”. Assuming a second stem in **-ā-* for Balto-Slavic would have the advantage of providing a motivation for the transfer into the “semithematic” \bar{a} -class in Baltic.

This Balto-Slavic verb must have displayed ablaut in its paradigm. Two possibilities, not necessarily mutually exclusive, come into mind: either the present (< old perfect) still preserved the old ablaut pattern **boj- : *bī-/*bij-* (< **b^he/i-b^hóiH- / *b^he/i-b^hiH-’*), or the second stem in **-ā-* triggered zero grade of the root, irrespective of the ablaut of the present (i.e., pres. **boj- : *bī-/*bij-*, inf. **bij-ā-*, or pres. **boj-*, inf. **bij-ā-*).

The divergence of treatments of this verb in Baltic and Slavic would be easier to understand if it didn’t display regular \check{i} -inflexion in the present, but still kept part of its original athematic inflexion. For reasons that will become clear immediately I would assume athematic inflexion (perhaps with partly preserved perfect endings as in OCS *vědě*), with a plural (and eventually dual) stem characterized by a union vowel *-i-*, in the last instance derived from a 3rd pl. **-nt(i)* or **-r-*: 1 sg. **bai-m(a)i* or **baj-ai*, 2 sg. **bai-s(a)i*, 3 sg. **bai-ti* or **baj-ei*, 1 pl. **baj-i-me* or **bij-i-me*, 2 pl. **baj-i-te* or **bij-i-te*, 3 pl. **baj-i-nti* or **bij-i-nti*.²⁴

It goes without saying, the proposed reconstruction of the Balto-Slavic prototype of Lith. *bijóti* and OCS *bojati* would be somewhat gratuitous if it could not be supported by at least a handful of verbs that could be argued to have had a similar paradigm and a similar history. I believe *bijóti/bojati* and *žinóti* made part of a small but still recognizable class of Balto-Slavic

²⁴ There is no need to insist on the correctness of all the details of this reconstruction, a large part of which has been rendered irrecoverable by the subsequent evolution of Baltic and Slavic.

verbs characterized by the features proposed for *bijóti/bojati*: 1) a second stem in **-ā-*, 2) an independent present, usually athematic and characterized by a union vowel *-i-* in the plural, 3) paradigmatic ablaut, perhaps limited to different types of vocalism in the present (reflecting its different Indo-European origins) as opposed to zero grade in the infinitive and aorist stem. A survey of possible candidates can be given here:

6.2. Lith. *miegóti, miegù* “sleep”, with a very well attested athematic present *miegmi* (cf. OPr. *meicte / moicte*), and its Slavic cognate *mbžati, mbži-* “have the eyes closed” look very much like a perfect word equation. Old Lithuanian still preserves the original athematic present. The Slavic inflexion as an *i*-verb would be easier to understand if the plural was characterized by a union vowel *-i-*. This would motivate its transfer to Leskien’s Class IV B and the subsequent replacement of the second stem **-ā-* by **-ē-*. The contrast between the full grade of Baltic and the zero grade of Slavic points to original ablaut, which I would posit as pres. sg. **meig-m(a)i* : pl. **m(e)ig-i-me*, inf. **mig-ā-tēi*. I derive *miegóti/mbžati* from an Indo-European middle root present, perhaps a Narten present in origin. This view is supported by Ved. *ni-méghamāna-* “herabschimmernd, niederblinzelnd” RV 2.34.13, 8.4.10, whose unpalatalized velar *-gh-* can be explained as due to a relatively late thematization of a root middle present **méig^h-or*. If derivation from a perfect would be preferred, this wouldn’t change anything for our present purposes. I refer to Villanueva (2004) for a fuller argumentation.

6.3. Lith. *ieškóti, ieškau* “search for”, Latv. *iēškât, iēškāju* “look for lice”, with the inherited thematic present still attested in OLith. *ieszku* (Universitas), and OCS *iskati, iskq* (usually replaced by *ištq* with generalization of the stem *ište-* < **iske-*) clearly continue an Indo-European *ské/o*-present (: Ved. *iccháti*, YAv. *isaiti*, etc., cf. LIV² 260). The accentual variants in Slavic (SCr. *iskati, ištēm* and *ískati, ištēm*, Russ. *iskát’, iščú, iščeš*, OCz. *jískati*, Slovak *ískat’*) make it reasonable that the second stem had zero grade, **jbskati*.²⁵ It thus seems reasonable to reconstruct a Balto-Slavic paradigm pres. **ēiska/e-*, inf. **iskā-*. The explanation of the vocalism of the present stem **ēiska/e-* is notoriously difficult,²⁶ but the extension of the present stem *-sk-* through

²⁵ Cf. Vaillant (1966, 204), and especially Strunk (1994, 393ff.), for a discussion of the Slavic evidence.

²⁶ The ultimate explanation of Balto-Slavic **ēiska/e-* is not crucial for our present discussion. Klingenschmitt (1982, 67⁵), suggests either univerbation with a preverb **eh₁-h₂is-ské/ó-*, or the influence of the sigmatic aorist **h₂ěis-s-*. Jasanoff (2003, 192)

all the paradigm is clearly an innovation (an original sigmatic aorist is still preserved in GAv. *āiš*), and indicates that the zero grade of the second stem is best taken as a feature triggered by the suffix **-ā-*.

6.4. Athematic present forms of Lith. *raudóti* “weep” and *giedóti* “chant” (1 sg. *ráumi*, *gíemi*, etc.) are fairly well attested in old texts and the dialects. As already observed (§4), Latv. *raûdât* “cry, weep” and *dziêdât* “sing” show unexpected plural endings 1 pl. *-im*, 2 pl. *-it* in some dialects. There are thus good reasons to assume an original paradigm pres. **raud-m(a)i* : **raud-i-me*, inf. and pret. **r(a)ud-ā-*. The possibility of original ablaut can not be ascertained from the available evidence, as verbs of the class we are studying display a clear tendency to level out ablaut in the daughter languages.

The root etymology of *giedóti* is clear (Ved. *gāyati* “sings”, verbal adjective *gītá-*).²⁷ Apparently we have to start from **geiHd-*, either from **g^(w)eH-i-d^(h)-*,²⁸ or as an innovated full grade to the zero grade **g^(w)iH-d^(h)-* (< **g^(w)Hi-d^(h)-*), but the ultimate analysis of **geiHd-* is unclear (*d^(h)-*present? *d^(h)-*enlargement?) and, accordingly, the same holds true for the historical interpretation of its morphology.

The case of *raudóti* is more promising but equally problematic. An athematic present is attested in Ved. *róditi*, *rudánti* “weep”. Lat. *rudere* “cry out, bray”, *rūdere* (since Persius), and OE *rēotan*, OHG *riozan* “weep” are perfectly compatible with the reconstruction of an athematic present **réudH-ti* / **rudH-énti*. A base **rud-* seems to underlie the Slavic iterative OCS *rydati*, *rydajō* “weep, lament”. I would suggest the second stem of a Balto-Slavic paradigm pres. **raud-m(a)i*, inf. **rud-ā-* as the derivational basis of *rydati*, but other possibilities cannot be excluded.

If we start from a normal athematic present with 3 pl. **rudH-énti* the dialectal Latvian forms 1 pl. *raûdim*, 2 pl. *raûdit* would be exceedingly difficult to account for (cf. also the East Lithuanian imperative *raudý*). Endzelin’s

assumes influence of a lost acrostatic s-present (desiderative) **h₂ěis-s-* in the root vocalism of **h₂is-ské/ó-* (as in the case of **ġnéh₃-*, see above fn. 12). In any case, I doubt **ěiska/e-* can be explained as a recent Balto-Slavic innovation. Vaillant and Strunk, *loc. cit.*, favor a Balto-Slavic paradigm **eiska/e-* : **iskā-*, but the acute of Lith. *ieškau* can hardly be explained as secondary (Vaillant’s explanation as analogical to that of *giedu* is clearly unsatisfactory – the class of verbs we are studying show no tendency to generalize the acute intonation in Baltic).

²⁷ Cf. LIV² 183.

²⁸ With metathesis **-EHiT-* > **-EiHT-*, cf. Smoczyński (2006, 166f.).

derivation from **raud-int* < **réudH-nti* remains the most satisfactory explanation, but a 3 pl. **réudH-nti* would imply a Narten present with 3 sg. **réudH-ti*, in apparent contradiction with the Vedic paradigm.

A case for an original Narten present has been argued by Hollifield (1977, 64f.) and Vine (1981, 18ff.). In addition to the Baltic *i*-forms, an original Narten present would be supported by the acute intonation of *ráusti/ráuda* and by the Avestan evidence. The Baltic acute, however, can now be explained through Winter's Law and is thus of no diagnostic value. In Avestan we find a 3 sg. injunctive middle GAv. *raostā* Y. 29.9, YAv. *raosta* Y. 9.24 "cried out". Because of its full grade *raostā* is traditionally interpreted as a sigmatic aorist,²⁹ but no sigmatic aorist is attested in Vedic nor in any other Indo-European language. In addition, old sigmatic aorists are hardly ever found beside root athematic presents in Indo-Iranian.³⁰ *raostā* can also be taken as an athematic present.³¹

The picture is complicated by the Vedic thematic aorist *árudat* AV 14.2.50 and the Young Avestan zero grade forms *uruθan* V. 9.32, *uruθaŋ* F. 9, *uruθanta* V. 19.45. The analysis of the Avestan forms is problematic. They could be taken as a *tudāti*-present (thematized from the 3 pl. **rudanti*), as a thematic aorist to be equated with AV *árudat*, or as an athematic present, as per Kellens (1984, 88). If we opt for a thematic aorist, continuing an Indo-European root aorist (perhaps exclusively or predominantly inflected in the middle, as per Hollifield, *loc. cit.*), this would lend support to the assumption of a derived Narten present **réudH-ti* / **réudH-nti*, but the evidence is too problematic to allow for a strong position.

In any case, the replacement of a Narten present by a "normal" athematic present in the prehistory of Vedic and apparently also in that of Latin *rudere* / *rūdere* is not easy to motivate either. We could perhaps start from a renewed plural **réudH-nti* → **rudH-énti* (as in **stéu-nti* → Ved. *stuvánti* to singular *stáuti* "praises"), that would have triggered the replacement of 3 sg. **ráuditi* by *róditī*. If we opt for a presential root (in which case the thematic aorist Ved. *árudat* must be secondary, whatever its ultimate explanation might be), I can see two further possibilities in order to reconcile Ved. *róditī* / *rudánti* and Lat. *rudere* / *rūdere* with GAv. *raostā* and the putative pre-Baltic 3 pl. **ráud-int(i)*,

²⁹ E.g. Kellens (1984, 88), LIV² 508.

³⁰ Cf. Narten (1964, 81).

³¹ So also Kellens–Pirart (1990, 311).

in addition to simply taking Ved. *róđiti* / *rudánti* as secondary. On the one hand, we could assume that a Narten present **réudH-ti* / **réudH-ŋti* was derived from the “normal” root present **réudH-ti* / **rudH-énti*. As a second possibility, I would suggest that “normal” root presents like **réudH-ti* / **rudH-énti* originally had a middle with full grade of the root (an idea on which I hope to publish at length elsewhere), in which case GAv. *raostā* and Baltic **ráud-int(i)* would represent a precious archaism (**réudH-tor* / **réudH-ŋtor*, presumably replacing older **réudH-or* / **réudH-ror vel. sim.*). Both possibilities, specially the second one, entail a serious revision of the Indo-European verbal ablaut that can not be reasonably accommodated here.

6.5. The etymology of the other Baltic verbs of the type *bijóti* is uncertain and little can be said of their prehistory.

Lith. *sáugoti*, -o (also -oja), Latv. *saūdzēt*, -u/-ēju “take care of” and Lith. *sérgėti*, *sérgi*, Latv. *saŕgāt*, -u/-āju “guard, watch over” show a similar meaning and the same curious fluctuation between *ā-* and *ē-*inflection in Lithuanian and Latvian, in addition to the difference in root vocalism between Lith. *sérgėti* and Latv. *saŕgāt*. Nevertheless, they look like perfect word equations and should in principle be derived from a common Baltic paradigm. Both *sáugoti* and *sérgėti* show plenty of athematic present forms (3rd person *sáugti*, *sérgti*) in Old Lithuanian texts. The athematic present of *sérgėti* is better represented than that of *sáugoti*,³² what has led to the assumption that the athematic present of *sáugoti* is analogical to that of *sérgėti*. This is possible, but far from assured. I would reconstruct the Proto-Baltic paradigm of *sáugoti/saūdzēt* as pres. **sáug-m(a)i* / **sáug-i-mě* : inf. and pret. **sáug-ā-*, and suggest an early extension of *-i-* through all the present stem in Latvian, finally leading to the replacement of the infinitive **sáug-ā-ti* by **sáug-ē-ti*.

The case of *sérgėti/saŕgāt* is more involved. The antiquity of both the *e-*grade and the second stem **-ē-* is supported by OPr. *absergīsnan* “Schutz”. On the other hand, *saŕgāt*, -u is the only verb that has preserved the inflexion of the type *bijóti*, *bijo* in Latvian. The same fluctuation in root vocalism recurs in Lith. *gélbėti*, -sti/-ėja “save”, with a well attested Old Lithuanian athematic present *gélbti*, vis-à-vis OPr. 1 pl. *galbimai*, opt. 3 sg. *galbsai*, *galbse*, ppp. *pagalbton*.³³ Stang (1966, 311) takes the *a*-vocalism as ancient and as evidence

³² In addition, notice the abundance of present stems of *sérgėti* listed in LKŽ XII 427, that clearly point to different renewals of an inherited athematic present.

³³ Cf. Mažiulis, PKEŽ I 316, III 305.

for an original perfect, but the *e*-grade of *sérgėti/absergīsnan* and *gélbėti* is not easily motivated within this perspective. Contamination between different verbs, all of them equally inherited, cannot be ruled out, but the ultimate explanation of the variation in root vocalism and second stem of these old athematic presents remains obscure to me.

Lith. *kabóti*, *kābo* (beside *kabėti*, *kāba*) and *karóti*, *kāro* have the same meaning “hang (intr.), be suspended”. The relationship of *karóti*, *kāro* to *kárti*, *kāria* “hang (tr.)” is unique. Derivatives of the type *brýdoti*, *-o* “stand in water” (: *brīsti*, *breñda* “ford, wade”), *kýboti*, *-o* “hang (intr.)” (: *kìbti*, *kiñba* “stick, cling to”), or of the type *kilóti*, *-ója* “lift (iter.)” (: *kélti*, *kēlia* “lift”) are not otherwise used to derive an intransitive verb from a transitive one. The *o*-grade of *karóti* could be derived from a perfect, but this would leave the transitive *kárti* without a good explanation. I suggest comparing the pair *kárti* : *karóti* to the semantically related Germanic pair of strong verb **hanhan*, *-iþ* “hang (tr.)” (Go. *hahan*, OHG *hāhan*) and 3rd class weak verb **hangan*, *-aiþ* “hang (intr.)” (Go. *hahan*, OHG *hangēn*), continuing an original voice opposition between a “*h₂e*-conjugation” *molō*-present **kónk-e(i)* / **k(é)nk-ŕ(s)* (*vel. sim.*, cf. Hitt. *kānk^{hhi}* “hang”) and its middle **kónk-or* (cf. Ved. *sáñkate* “hesitates”, with accent shift to **kónk-ói* in the prehistory of Germanic).³⁴ Within this perspective, *kárti*, *kāria* would stem from the active of a *molō*-present **kórH-e(i)* / **kérH-ŕ(s)* “hang (tr.)”, while *karóti*, *kāro* (probably replacing an earlier athematic present **kar-m(a)i*) would continue its middle **kórH-or* “hang (intr.)” (perhaps for earlier **kérH-or*, with leveling of root vocalism in the prehistory of Baltic). The pair *kabóti*, *kābo* beside *kabėti*, *kāba* is reminiscent of that of *sérgėti* / *saŕgât* and *sáugoti* / *saũdzêt* and equally problematic. *kabóti* could simply be analogical to *karóti*, as suggested by Kortlandt (1989, 105), but this can of course not be ascertained.

6.6. As already observed, two Slavic verbs of Leskien’s class IV B show an unexpected second stem in **-ā-*: *svpati*, *svpi-*, “sleep”, and *svcati*, *svči-* “piss”.

The etymology of *svpati* is clear (**suep-* “fall asleep”). Hitt. [su]pzi, 2 pl. imper. *supten* (beside middle forms *suppatta*, *suptāri*, *suppari*), and Vedic pres. ptcp. *svapánt-*, 2 sg. imper. *svapa*, 3 sg. imper. *sváptu* (AV) point to an inherited active root aorist **suep-t* / **sup-ént*. A perfect **se/u-suóp-* / **se/u-sup-* is continued in Ved. *sušvāpa*. A Narten present **suep-* / **suep-* seems to be implied by the “Narten” causative **suóp-je/o-* “put to sleep” (> Lat. *sōpire*

³⁴ See Jasanoff (2003, 72ff.) on the reflexes of **kenk-* and the reconstruction of the Indo-European paradigm.

“cause to sleep”, ON *sófa* “kill”).³⁵ Beside the stative *sъpati* Slavic attests an inchoative OCS *u-sъnъti*, pres. *-sъne-* (RCS *-sъple-*), aor. *-sъpe* “fall asleep”, with a *je/o-* present later replaced by the expected *ne-* present that could well be ancient. Jasanoff (2003, 160) derives *sъpati* from a present **sup-ór*, but this type is otherwise exclusively found beside middle root aorists, whereas the Hittite and Vedic evidence slightly suggests that **suep-* built an active root aorist in Indo-European. I see two possibilities for *sъpati*: either it stems from the perfect **se/u-suóp-* / **se/u-sup-*,³⁶ or from the Narten present **suep-* / **suep-*. The generalized zero grade could stem from the second stem **sup-ā-*, but other possibilities cannot be excluded. I refer to Villanueva (forthcoming §4.1.) for a fuller discussion.

The case for an inherited present **sik^w-ór* is much better in the case of *sъcati*, *sъči-* “piss”, that can be directly equated with TA 3 pl. *sikaṃtār* “flood”, a middle root aorist being perhaps directly continued in the Vedic passive aorist *abhy-āṣeci* (ŚB) “was anointed”, with “suppletive” sigmatic 1 sg. *abhyāṣikṣi* (MS^m), and in the TA class V subjunctive *sekaṣ*. The active system seems to have involved an active root aorist **séik^w-t* / **sik^w-ént*, thematized in Ved. *ásicat* “poured” (unless from a secondarily transitivized middle), and a nasal present Ved. *siñcāti*, YAv. *hiñcāiti* “pours”. A second stem in **-ā-* beside a prototypic present of the type **d^hug^h-ór* is rather unexpected in Balto-Slavic. I wonder whether Slavic *sъcati* and TA *sikaṃtār* could not be united with Ved. *sácate* “is poured” and the Germanic strong verb OHG *sīhan*, OE *sēon* “strain” under a Narten present **séik^w-t* / **séik^w-nt*, but I am not aware of any independent evidence supporting such a reconstruction. Ved. *sácate* and Gmc. **seihwan* could perfectly stem from the subjunctive of the root aorist.

7. Some of the formal features of this class recur in the much larger class of verbs with a second stem in **-ē-*, with which it shares similarities in meaning.³⁷

³⁵ Cf. Klingenschmitt (1978) on **suóp-je/o-*, and Jamison (1982/83) against Klingenschmitt’s view that the Narten present **suep-/suep-* predicted by **suóp-je/o-* is still directly attested in Vedic.

³⁶ So LIV² 612.

³⁷ I basically follow the views of Jasanoff (1978; 2002/03) on the debated “*ē*-statives”. Here we will focus on verbs that seem to have a different origin from the nucleus of *ī*-presents (the type Lith. *minėti*, *mini* “mention, remember”, OCS *mbněti*, *mbni-* “think”), and probably have been fully adapted to this class at a relatively late date, to a large extent independently in Baltic and Slavic.

Extension of *-i- (from resegmented 3 pl. *-int^o < *-nt^o, *-r) through the plural is found in OPr. 1 pl. *waidimai*, 2 pl. *waiditi* vs. 2 sg. *waisei* “know” (cf. OCS 3 pl. *vědetv*, inf. *věděti*), and must have been an important factor in the transfer into the class of *ī*-presents of old perfects like Lith. *garėti*, *gāri*, OCS *gorėti*, *gori-* (pres. ptcp. *goręšt-*) “burn”, OCS *polėti*, *poli-* “flame”, *bolėti*, *boli-* “be sick”, Lith. *galėti*, *gāli*, “be able, can”, and old Narten presents like OCS *běžati*, *běži-* “run” (ORuss. *běči*, *běgu*, OLith. *bégmi*), *velėti*, *veli-* “want, order” (OLith. *-velmi*, *-velt* “want, allow”). In many cases evidence pointing to a Balto-Slavic athematic present is still attested in the historical languages.

Whether verbs with a second stem *-ē- still displayed ablaut in Balto-Slavic is less clear to me. Evidence of ablaut is practically restricted to a few East Baltic pairs like Lith. *veizdėti*, *vėizdi* “see” (OLith. *vėiz(d)mi*, OCS *vidėti*, *vidi-*, imper. 2/3 sg. *viždb*) vs. Lith. *pa-vydėti*, *-i* “envy”, OLith. *pa-niedetas* “scorned, humiliated” (Daukša) vs. Latv. *nîdêt*, *-u* (and *nîst*, *-stu/-žu*) “hate”,³⁸ or Latv. *ziêdêt* vs. Lith. *žydėti*, *-i* “bloom”.³⁹ I am not certain that the assumption of an old ablauting paradigm is the only possible explanation for these pairs. The vocalism of Lith. *žydėti* could have been borrowed from the *sta*-inchoative (*pra-*)*žýsti*, *-sta*, *-do*. A similar explanation could be offered for Latv. *nîdêt*, *-žu/-du*, for **niêdêt* with the vocalism of the derived *sta*-present *nîst*, *-stu* with which it eventually came to coincide in meaning. Finally, *pa-vydėti* could be equated with Ved. *vidé* “is known”, Go. *witan*, *-aiþ* “watch, observe”, Lat. *uideō*, *-ēre* “see”, in which case it would continue a different present formation (**uid-ór*) from the Narten present **uēid-/*uēid-* that is apparently continued in Lith. *veizdėti*, OCS *vidėti*.⁴⁰

8. The verbs we have studied do not belong to a productive class. Many of them show unexpected features in their conjugation. They can thus be taken seriously as potential witnesses of an earlier stage of the Balto-Slavic verb. The prehistory of some of them is uncertain, but a remarkable number have a clear etymology and can be more or less confidently traced back to an Indo-European verbal formation (which is rarely the case when studying the Balto-Slavic verb). Apart from Lith. *ieškóti* / OCS *iskati*, all verbs with a

³⁸ From a Narten present **h₃nēid-ti/*h₃nēid-nti* (: YAv. *nāist* “blame”), cf. Tremblay (1999).

³⁹ So for instance Jasanoff (1978, 108).

⁴⁰ Cf. Tremblay (1997, 113ff.) for more potential evidence in favor of an Indo-European Narten present of the root **uēid-*.

certain etymology seem to derive from an Indo-European athematic verbal formation that has been preserved until fairly recently. The assumption of a small class of Balto-Slavic verbs characterized by a second stem in **-ā-*, probably regularly accompanied by zero grade of the root, and a different type of present, usually a Balto-Slavic athematic present with a union vowel **-i-* in the plural, seems thus to be based on firm evidence.

This account of verbs like *bijóti/bojati* or Slavic *svpati*, which I believe is unavoidable because the evidence for the independence of the present stem is rather clear, raises of course a number of questions. A detailed discussion cannot be reasonably accommodated here. The second stem **-ā-* is probably to be related to that of the iteratives in **-ah₂-je/o-* (Lith. *-oti, -oja*, OCS *-ati, -ajetv*), but the way some old perfects and presents acquired a second stem in **-ā-* remains to be worked out. To some degree it must have filled a gap in the paradigm. If verbs like *bijóti/bojati, miegóti/mvžati* or *ieškóti/iskati* correlated with inherited aorists, as many of them surely did, these were either lost (as in the case of *bijóti/bojati* and *ieškóti/iskati*) or, when preserved, had come to be part of a different paradigm (as in the case of OCS aor. *u-svpe* “fell asleep” beside pres. *-svple-/svne-*). Whether any type of relationship exists between the second stem in **-ā-* of this small group of verbs and that of the Baltic *ā*-preterit or the Slavic type *bvрати, bere-* “take” is conceivable, but far from assured. In any case they seem to conform different Balto-Slavic verbal classes that are still kept separately in the daughter languages (with the exception of Slavic *iskati*).

9. The purpose of the preceding sections §6.-8. has been to place *žinóti* in line with the verbs with which it shares the most obvious morphological similarities. Derivation from a perfect is paralleled by *bijóti/bojati* and the same origin is possible, although not assured, for other verbs of this class. The **-ā-* of the present (singular) **žinā-* can now be seen as simply adopted from that of the second stem **žin-ā-*,⁴¹ in the same way as **-ā-* has been generalized through the present paradigm of *bijóti*. A major advantage of this proposal is that the aberrant dialectal Latvian 1 pl. *zinim*, 2 pl. *zinit* can now be seen as a regular feature of the class of verbs to which *žinóti* belongs

⁴¹ To be sure, a somewhat anachronistic **ǵnh₃-eh₂-* would probably have given **žin-ō-*. The **-ā-* of **žin-ā-* is either analogical after other verbs with a second stem in **-ā-* or, much more likely, the second stem **žin-ā-* was formed at a relatively late date, when laryngeals had already fallen or were not capable of coloring a neighboring **e*.

and are to be derived, in the last instance, from the 3 pl. *ĝe-ĝnh₃-ř.⁴² It remains only to offer a possible scenario from Indo-European to the Baltic (and Slavic) languages.

The reconstruction of the present paradigm (< old perfect) inherited by Balto-Slavic is problematic due to the controversy surrounding the status of the *u*-perfects of the type Ved. *jajñáu*, Lat. (*g*)*nōuī*, OE *cnēow*. We should start either from sg. *žnō(-) / pl. *žini- (< 1 sg. *ĝe-ĝnóh₃-h₂a, 2 sg. *ĝe-ĝnóh₃-th₂a, 3 sg. *ĝe-ĝnóh₃-e, pl./du. *ĝe-ĝnh₃-), or from sg. *žnōw(-) / pl. *žini- (< 1 sg. *ĝe-ĝnóh₃-u, 2 sg. *ĝe-ĝnóh₃-th₂a, 3 sg. *ĝe-ĝnóh₃-u, pl./du. *ĝe-ĝnh₃-, *vel sim.*), depending on one's position concerning the perfect type Ved. *jajñáu*.⁴³ The old root aorist *ĝnéh₃-t / *ĝnh₃-ént is continued directly in Slavic aor. 1 sg. *znaxъ*, 2/3 sg. *zna*. From the presents reconstructable to this root (*ĝn-n(é)-h₃-, *ĝnh₃-ské/o-, perhaps *ĝněh₃-s-) none seems to have survived

⁴² Hitherto I have been tacitly assuming that the 3 pl. of the perfect in (pre-)Balto-Slavic was *-ř rather than any other of the attested variants (*-ēr, *-řs, cf. Jasanoff 2003, 32ff. on its origin). In addition to the advantages *-ř presents over, say, *-ēr in order to explain the Balto-Slavic facts, it is supported by its presence in the most closely related dialects: Indo-Iranian *-ř (Ved. -úr, Av. -arā) and perhaps Germanic (if *-ř > *-ur stands behind 3 pl. -un, with -u- extended as a union vowel to 1 pl. -um, 2 pl. -up, 2 du. -uts).

⁴³ See Seldeslachts (2001, 1–52), with abundant literature, for a recent, overtly negative discussion centered around Latin. If the existence of Indo-European *u*-perfects for roots *ultima laryngalis* is accepted (my own solution has been presented in Villanueva 2002, 111ff.), it is interesting to observe that Lith. *stovėti*, *stóvi* “stay” and *dėvėti*, *dėvi* “wear (clothes)” almost certainly stem from old perfects (: Ved. *tastháu*, *dadháu*), but, differently from *žinóti*, show extension of °w- through all the paradigm. The vocalism of *stovėti* and *dėvėti* was probably borrowed from the root aorists *stā-t, *d^hē-t at an early date. The circumflex intonation of *dėvi* can perhaps be explained as due to a regular Balto-Slavic circumflex metatony in monosyllables, as proposed by Rasmussen (1992, 188ff.). This explanation would entail the presence of 1/3 sg. *d^(h)ēw (← *(d^(h)e-)d^(h)ōw) at some stage of the prehistory of Balto-Slavic. In this case, the acute of *stóvi* must have been taken from (*at-si-*)*stóti*, -ja, -jo “stand up” (so also Kortlandt 1989, 111, with a different explanation of the circumflex of *dėvi*). The reason why *žinóti* took a different path from *stovėti* and *dėvėti* is probably to be explained as due to the fact that the weak stem of *žinóti* was *žin(i)-, to which a second stem could be regularly added and that could be perfectly used to rebuild the paradigm, while that of *stovėti* and *dėvėti* must have been a much less usable *st-, *d- (and/or perhaps *sta-, *da- or, from the 3rd pl., *sti-, *di-).

in Balto-Slavic. The Slavic present *zna-je-* is an obvious innovation that can perhaps have replaced one of the old presents of **ĝneh₃₋*.⁴⁴

I suggest that the contrast between Slavic *znati*, *znaje-* and Baltic **žin-ā-* (pres. **žin(ā)-*/**žini-*) reflects an original, Balto-Slavic contrast between inchoative “get to know” and stative “know”. In Baltic the stative was generalized, the inchoative value being expressed with preverbs. This seems to be the situation of Old Prussian. Later an inchoative *sta-*present was formed in East Baltic. In Slavic the inchoative was generalized. The stative meaning “to know” of the Slavic imperfective *znati* is perhaps due to polarization vis-à-vis the preverbed perfectives (OCS *po-znati* “recognize”, etc.), which would continue its original value.

When the need was felt to endow the stative **žnō(w)(-)* / **žini-* with a full paradigm, it acquired a second stem in **-ā-*, regularly built to the zero grade of the root: **žin-ā-* (the old pluperfect **ĝe-ĝnóh_{3-t}* / **ĝe-ĝnéh_{3-rs}*, *vel sim.*,⁴⁵ was lost in Balto-Slavic, and the old root aorist was part of a different paradigm). Similar processes must stand at the origin of the second stem in **-ē-* and **-ā-* usually paired with most old perfects that have been preserved in Balto-Slavic, but the reasons why either **-ē-* or **-ā-* were selected cannot now be recovered.

A paradigm pres. **žnō(w)(-)* / **žini-* : inf. and aor. **žin-ā-* was of course too irregular to survive and the weak stem **žin-* was generalized. It is possible that the present was first transformed, perhaps already in Balto-Slavic times, into an athematic paradigm (pre-)Baltic 1 sg. **žin-m(a)i*, 2 sg. **žin-s(a)i*, 3 g. **žin-ti*, 1 pl. **žin-i-mě*, 2 pl. **žin-i-tě*, and that only later did the singular adopt **-ā-* from the second stem, but this can of course not be proved. If this assumption is correct, the early loss of the athematic present inflexion of *žinóti* and *bijóti* (in contrast with the survival down into historical times of the athematic present of *miegóti*, *raudóti* or *giedóti*) was in part perhaps due to phonetic reasons: in Old Lithuanian athematic presents to roots not ending in a stop are very rare, and those ending in *°d-* (like *raudóti* and *giedóti*) clearly predominate.

⁴⁴ In this connection it is interesting to observe that Jasanoff (1988, 238) considers Germanic **knē-ja-* “know, perceive” (OE *cnāwan*, OHG *ir-knāen*, ON *kná*) a replacement of **ĝnēh_{3-s-}*. See Harðarson (1993, 79ff.) for a different account of **knē-ja-* (and ON *kná*).

⁴⁵ I am following Jasanoff (2003, 34ff.) in the formal reconstruction of the pluperfect, but this is immaterial for our present discussion.

LIE. žinóti

Santrauka

Lie. žinóti, žino (la. *zinât*, *zina*, pr. *po-*, *er-sinnat*, *-sinna*) paprastai kildinamas iš ide. prezenso su nosiniu intarpu **ǵn̥-né-h₃-ti* / **ǵn̥-n-h₃-énti* (s. i. *jānāti*, toch. A *knānaṣ*, s. air. *ad-gnin*). Tačiau šis aiškinimas susiduria su dviem svarbiais sunkumais: 1) bl. kamienas **žinā-* (< **žin-nā-*) vietoj lauktino **žinō-*, 2) latvių tarmių daugiskaitos formos 1 dgs. *zinim*, 2 dgs. *zinit*. Nors būta įvairių bandymų paaiškinti šias dvi problemas, jų negalima laikyti įtikinamais arba jie nebeatitinka indoeuropiečių morfologinės rekonstrukcijos ir baltų kalbų istorinės fonologijos bei morfologijos dabartinių žinių. Kiti bandymai aiškinti lie. žinóti ir t. t. ne iš ide. intarpinio prezenso taip pat yra neįtikinami.

Lie. žinóti čia siūloma kildinti iš ide. perfekto **ǵe-ǵnóh₃-e* (arba **ǵe-ǵnóh₃-u*) / **ǵe-ǵn̥h₃-ǵ* (s. i. *jajñáu* ir kt.). Praktiškai identiška raida pastebima veiksmožodyje lie. *bijóti*, *bijo* (la. *bijātiês*, pr. *biātwei*). Jo slavų atitikmuo *bojati*, *boji-* sę neabejotinai kilęs iš perfekto **b^he-b^hóiH-e* (s. i. *bibhāya*, s. v. a. *bibēn*) ir iš principo lie. *bijóti* turėtų būti tos pačios kilmės. Siūloma rekonstruoti bendrą baltų-slavų šių veiksmožodžių paradigmą bendr. ir aor. **bij-ā-*, prez. **bai-m(a)i* / **baj-i-me* arba **bij-i-me*. Lie. žinóti ir lie. *bijóti* / s. sl. *bojati* sę priklausė negausiai baltų-slavų veiksmožodžių grupei, kuriai būdingi šie bruožai: 1) bendraties ir aoristo kamienas **-ā-*, 2) nepriklausomas, paprastai atematinis prezensas su jungiamuoju balsiu **-i-* daugiskaitoje (kilęs iš 3 dgs. **-int(i)* < **-nt(i)* arba **-r*), 3) balsių kaita, veikiausiai su nuliniu laipsniu kaip bendraties kamieno charakteristika. Kiti veiksmožodžiai, kurie galėjo priklausyti šiai grupei, yra lie. *miegóti* / sl. *mǫžati*, lie. *ieškóti* / s. sl. *iskati*, lie. *raudóti*, *giedóti*, *sáugoti*, *sérgėti* (la. *saŕgât*), *kabóti*, *karóti*, s. sl. *svǫpati*, bažn. sl. s.-kr. *svcati*. Dauguma jų išsaugojo pėdsakų iš postuluojamoms baltų-slavų paradigmos.

Baltų-slavų epochai siūloma rekonstruoti opoziciją tarp inchoatyvinio **žnō-tēi*, **žnō-je/a-* > s. sl. *znati*, *znaje-* (iš ide. atem. aor. **ǵnéh₃-t*) ir statyvinio **žin-ā-tēi*, **žin-m(a)i* / **žin-i-me* (iš ide. perf. **ǵe-ǵnóh₃-* / **ǵe-ǵn̥h₃-* > **žnō(w)(-)* / **žini-*; šio veiksmožodžio prezensų baltų ir slavų kalbose neišliko) >→ bl. **žin-ā-*, **žinā-* / **žini-* (iš kur la. trm. *zinu* / *zinim* ir, su apibendrintu **-ā-* kamienu, lie. *žinaũ* / *žinome*).

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