

THE ORIGIN OF THE ADVERB SUFFIX LITH. -ČIA, LATV. -ŠU(S)

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Abstract: Lithuanian adverbs in *-čia* and Latvian adverbs in *-šus* appear to go back to a Proto(-East) Baltic class of deverbal adverbs of manner in **-tjān*. It is obvious that **-tjān* contains the *ā*-stem instrumental singular **-ān*, although the most likely derivational base are action nouns in **-ti-*. This, however, is typologically rare. As a way out, I propose that instr. sg. **-tjān* was grammaticalized as a converb of manner, and only much later demoted to a deverbal adverb. This is in accordance with other facts suggesting that Proto-Baltic acquired a complex system of infinitives and converbs, probably under Uralic influence, and later lost it.

Keywords: Lithuanian; Latvian; Baltic; adverbs; converbs.

1. Introduction

Students of Indo-European often operate with an unacknowledged, but real bias towards linear developments. Thus, when confronted with the six-case system of Latin virtually all mainstream scholars assume that the eight-case system of Indo-European was first simplified to seven cases (by losing the instrumental) and then to six (by losing the locative) – i.e., $8 > 7 > 6$. In many cases this is likely to be the whole story, but it is enough to turn our attention to the Latin verb to realize that linguistic development may easily take more tortuous paths. While it is customary to operate with simplified statements like ‘the PIE subjunctive yields the Latin future’ or ‘the Latin imperfect goes back to a periphrasis with **b^huH-*’ (*vel sim.*), it would be more realistic to view the prehistory of the Latin verb as a succession of systems that

were neither the lineal descent of Indo-European nor the direct ancestor of Latin. Needless to say, the main impediment to such an approach (and no doubt the main reason why it is rarely attempted) is that post-Indo-European innovations will only be accessible to us if they have left sufficiently clear relics.

Turning to Baltic, the case system furnishes a textbook instance of an apparently linear development that covers up a more complicated prehistory. Faced with the seven-case system of modern Lithuanian and Latvian¹ few scholars would question that Baltic simply lost one of the eight cases of Indo-European (the ablative), as evidently confirmed by Slavic. And yet, Baltic created three additional cases (illative, adessive and allative) that were still preserved in Old Lithuanian and were subsequently lost. In other words, the real development is $8 > 7 > 10 > 7$. I wonder, however, whether this could be recovered from 21st-century Lithuanian and Latvian alone. In Villanueva Svensson (2019) I have argued that the Proto-Baltic system of infinitives and converbs experienced a comparable, hitherto unnoticed increase of formations that were later lost. The purpose of this paper is to argue that the adverb suffix Lith. *-čia*, Latv. *-šu(s)* goes back to a Proto-Baltic converb of manner.

2. Lithuanian *-čia*

Lithuanian has an unproductive, but sizeable group of adverbs in *-čia* from **-tīān* (East Aukšt. *-čiu*).² I give the evidence as classified by Ulvydas (2000: 234–237), adding the derivational base and/or related words:³

Simple adverbs: *bėgčia* ‘running’ (: *bėgti*, *-a* ‘run’), *kniūpsčia* ‘kneeling’ (cf. *kniūbsčias* ‘prone’, *kniūboti*, *kniūbsoti* ‘lie prone’, *kniūbti*, *kniūmba* ‘kneel down’), *nakčia* ‘at night’ (: *naktis*, *-iēs* ‘night’), *risčia* ‘at a trot’ (: *rìsti*, *rìta* ‘roll’), *slapčia* ‘secretly’ (: *slāptas*, *-ā* ‘secret (adj.)’, (*pa*)*slaptis*, *-iēs* ‘secret (subst.)’; cf. *slėpti*, *slėpia* ‘hide’), *smegčia* ‘with its top or blade down (of a falling knife); (fall) head first’ (: *smègti*, *smeŋga* ‘sink’, *smègti*, *smègia* ‘stick, thrust into’), *týčia/tyčia* ‘on purpose’ (without synchronic derivational base), *vogčia* ‘stealthily’ (: *vōgti*, *vāgia* ‘steal’). Ulvydas also includes here dial. *dařščia* ‘old’ (unclear background) and *šalià* ‘near, close by’ (: *šalis*, *-iēs* ‘side; land, country’), without the *-t-* of **-tīān*. Note that **-īān*, without *-t-*, is the unmarked analysis of *nakčia* and *slapčia*. This reduces the evidence for *-čia* to five or six items, all of them from verbal bases.

Prefixed adverbs: *netýčia* ‘unintentionally’, *panakčia* ‘every night’, *paslapčia* ‘secretly’, *prórisčia* ‘almost at a trot’ obviously depend on the simplexes *týčia*, *nakčia*,

¹ I am not certain that Latvian is best described as having seven cases, but this is not of prime importance here.

² In this article acute is marked as **Ē*, with underlining, and non-acute as simple **Ē*.

³ See also Forssman (2003: 295–297) for the Lithuanian facts.

slapčìà, *risčìà*. New items include *nejučìà* ‘imperceptibly’ (: *jaùsti*, *-čia* ‘feel’, inch. *jùsti*, *juñta*), *nemačìà* ‘unseen’ (: *matýti*, *māto* ‘see’), *pagrečìà* ‘one after another; beside’ (cf. *gretà* ‘file, rank; side by side, by, beside’), and the more problematic dial. *antiviřščia* ‘later’ (unclear background), *ažačìà/užačìà* ‘reversedly, back to front’ (cf. subst. *ažačìà/užačìà* ‘back’).⁴

Compound adverbs: *basaminčia* ‘on bare feet’ (*bāsas*, *-à* ‘barefoot’ + *minti*, *-a* ‘tread, trample down’), *basiáučia* ‘id.’ (*bāsas* + *aūti*, *-na* ‘put on (shoes)’), *basnirčia* ‘id.’ (*bāsas* + *nerti*, *nēria* ‘knit’, *nirti*, *nýra* ‘be dislocated’), *galvatrúčia* ‘at breakneck speed, headlong’ (*galvà* ‘head’ + *trúkti*, *-sta* ‘be lacking, burst’), *kēturpėsčia* (: *kēturpėsčias*, *-a* ‘on all fours’), *kiaūliarisčia* ‘at pigs/easy trot’ (*kiaūlė* ‘pig’ + *risčia* ‘at a trot’).

‘Prefixed’ and ‘compound’ adverbs confirm that *-čia* was originally at home in verbal bases. A curious discrepancy is that ‘prefixed’ adverbs are built to roots ending in *-t-* (and, therefore, appear to imply **^ot-īān*), whereas ‘compound’ adverbs are not (and, therefore, confirm a real suffix **-tīān*). I add two general comments before turning to the origin of *-čia* (§3).

Practically all adverbs in *-čia* have variants with other adverb or case endings, e.g., *risčia* ~ *risčiaīs*, *risčiomis*, *slapčia* ~ *slapčiomis*, *slapčiaī*, *slaptà*, *slaptomis*. Since *-čia* is *lectio difficilior*, there is every reason to take it as original. A potentially important corollary is that, on occasion, only extended forms may be preserved. Already Zubatý (1894: 136) noted that *sukčiaī* ‘deceptively’ may conceal an unattested **sukčia* (: *sùkti*, *-a* ‘twist, turn’, secondary ‘cheat, trick’) and that the adjective *sùkčias*, *sùkčius* ‘cheat, trickster’ may be back-formed from the adverb. A similar analysis can be applied to items like *trūkčiaīs/trūkčiaīs* ‘headlong’ (: *trúkti*, *-sta* ‘lack; burst’), (*pa*)*klup(s)ščiomis* ‘on one’s knees’, adj. *klùp(s)čias*, *klúpsčias* ‘kneeling’ (: *klùpti*, *kluñpa* ‘stumble over’, *klúpoti* ‘kneel, be on one’s knees’), or *něščia* ‘pregnant’ (: *něšti*, *něša* ‘carry, bear’), among others. On methodological grounds, however, I have preferred not to enlarge the evidence for *-čia* with material of this sort.

A second question is the relationship between *-čia* from **-tīān* and *-čia* from **^ot-īān*. It is noteworthy that simple adverbs in **^ot-īān* (*nakčia*, *slapčia*) are the only ones not going back to verbal bases (cf. *naktis*, (*pa*)*slaptis*). It follows that denominal adverbs did not belong to the original core of adverbs in **-tīān*. This, as we shall see in §4, is clearly confirmed by Latvian. We will return to the **-īān* of **nakt-īān* etc. below (§3.3, 6), but it is important to stress that in this paper we are only concerned with deverbal adverbs like *bėgčia*, *vogčia*. A possible corollary of what has been said is that the prefixed adverbs *nejučia*, *nemačia*, *pagrečia* (all of them to verbal roots ending in *-t-*) may stand for earlier **nejusčia*, **nemasčia*, **pagresčia* through adaption to the dominant group in *-čia*. Needless to say, this is far from certain.

⁴ I doubt the only example without *-t-* given by Ulvydas (dial. *atāgalia* ‘carelessly’, from *atāgalias*, *-à* ‘reversed’, itself from adv. *atgal* ‘back(wards)’) belongs here. The phrase *atāgalia rankà* ‘carelessly (< *with hand turned backwards, *vel sim.*)’ suggests that the simplex *atāgalia* arose through ellipsis.

3. Lithuanian *-čia*: earlier proposals

If approached from the viewpoint of modern Lithuanian alone *-čia* < **-tjān* is most naturally traced back to the feminine instrumental singular of nouns or adjectives in *-čia-* (< **-tjā-*, **-tjo-*). A less obvious, but distinct possibility would be feminine *ti*-stems. In this section we will examine whether these formations provide a likely source for the adverbs in *-čia*.

3.1. Nouns in *-čia* are not numerous.⁵ Leaving aside Slavic loanwords (*bažnyčia* ‘church’, *telyčia* ‘heifer’ etc.) and substantivized deadverbial adjectives (e.g., *apačia* ‘bottom’; see below §3.2), only *delčia* ‘waning moon’ is common (cf. *dilti*, *dyla* ‘grow used up; disappear, vanish’). All other examples are dialectal, sometimes of very limited distribution: *dėčia* ‘egg-laying time’ (: *dėti* ‘put; lay eggs [among other meanings]’, cf. *dėtis*, *-ies* ‘egg-laying time’), *erčia* ‘open space’, dial. *arčia* (: *árti*, *āria* ‘plough’), *iščios* ‘wrestling’ (: *išti*, *ima* ‘take’), *kaučia* ‘fight’ Vilentas (: *kauti*, *-ja/-na* beat, fight’), *pir(k)čia* ‘country chimneyless cottage’ (cf. *pirtis*, *-iės* ‘bathhouse; chimneyless cottage [among other meanings]’), *rángčia* ‘enthusiasm’ Daukša (: *rángtis*, *-iasi* ‘compete’), and a few others.

The modest lexical constituency of Lithuanian nouns in *-čia* is not the only argument against the idea that adverbs in *-čia* could derive from them. Most nouns in *-čia* have variants in *-tis* or *-tė* from which they are probably secondary alterations.⁶ In other cases we may be dealing with substantivized adjectives or back-formations from adverbs in *-čia*. Since the evidence of Latvian and Slavic is equally unimpressive,⁷ there is every reason to suspect that Balto-Slavic had no nominal suffix **-tjā-* (or that, if there was one, it was very rare).

3.2. Adjectives in *-čias* present us with a similar picture. PIE **-tjo-* was certainly old to derive adjectives from local adverbs (e.g., Ved. *ápa-tya-* ‘offspring’, Gk. ὑπ-τιος ‘laid on one’s back’). Examples in Baltic are typically substantivized (Lith. *apačia* ‘bottom’, *įščios* ‘womb, entrails’, Latv. *iekšas* ‘id.’). It is obvious that this cannot have been the origin of the adverb suffix *-čia*.⁸ Apart from this, adjectives in *-čias* usually stand beside adjectives in *-tas* and most likely depend on them: *basnīčias* ~ *basnirtas* ‘on bare foot’, *išvir(k)ščias* ~ *išviristas* ‘turned inside out’, *kuřčias* ~ *kuřtas* ‘deaf’, *pēščias* ~ *pēstas* ‘on foot’, *slāpčias* ~ *slāptas* ‘secret’, etc.⁹ We certainly have older **-tjo-* derivatives (e.g., Lith. *tūščias*, Latv. *tukšs*, OCS *tvštъ* ‘empty’ < Bl.-Sl. **tustja-*) as well as, occasionally, semantic specialization (e.g., Lith. *stāčias* ‘upright,

⁵ See Ambrazas (1993: 48f.), Vijūnas (2011) for recent treatments of Lithuanian nouns in *-čia*.

⁶ This is probably the majority view, cf. Ambrazas (1993: 48), Vijūnas (2011).

⁷ See Endzelin (1923: 278), Vaillant (1974: 706), Matasović (2014: 49). This is not the place for an extended treatment.

⁸ Pace Forssman (2003: 110f.).

⁹ See Skardžius (1943: 331f.).

standing' vs. *statūs* 'steep'), but the general trend of morphological renewal **-to-* → **-t-jo-* is very clear.

As for the adverbs in *-čia*, it is very hard to imagine how the instrumental singular of the feminine of these adjectives could have been specialized in this way. Note, in addition, that there are very few examples in which an adverb in *-čia* stands beside an adjective in *-čias*, and the few we have could easily be back formed from the adverb (e.g., *basnīrčias*, *slāpčias*).¹⁰

3.3. The last potential source, the *ti*-nouns, is more intriguing. PIE **-ti-* is a well-known suffix for verbal abstracts, which remained productive in Baltic (e.g., Lith. *būtis* 'existence' ← *būti* 'be', *baigtis* 'end' ← *baigti* 'finish', etc.).¹¹ Nouns in *-tis* inflect as normal *i*-stems. From a morphological point of view, many dialects have instr. sg. *-ia* (< **-i-ān*) for inherited *-i-m(i)* (: OCS masc. *gostbmь*) in the feminine *i*-stems, obviously taken from the *ā*-stems. The intrusive instr. sg. *-ia* is attested from the oldest records.¹² Unfortunately, the absence of evidence from Latvian and Old Prussian makes it impossible to know how old Lith. instr. sg. *-ia* is and, most importantly, whether it is related to the parallel replacement in Slavic (OCS fem. *kostbjq*). The fact that *-imi* is well established among Old Lithuanian feminine *i*-stems suggests that we are dealing with independent innovations.

The question now is whether the *ti*-stems provide an unproblematic source for the adverbs in *-čia*. In principle there seems to be no reason why the instrumental singular of action nouns in *-ti-* (a productive type) could not have given rise to an adverb suffix, a process that could even have been favored by the concurrence between **-imi* and **-iān*. Note, in addition, that whatever one thinks about deverbal *-čia*, origin in *i*-stem instrumentals is almost self-evident for the non-deverbal *nakčią*, *slapčią* and *šalią* (see above §2). This approach, however, has to face serious problems of its own.

There is, first of all, the obvious fact that deverbal adverbs are a rare thing to have.¹³ Baltic, with classes of verbal adverbs in both Lithuanian and Latvian, is the exception rather than the norm.¹⁴ At first sight, the reinterpretation of the derivational channel verb → action noun → verbal adverb (*bėgti* → *bėgtis* → *begčiai*) as verb → verbal adverb (*bėgti* → *begčiai*) looks fairly trivial, but I am not aware of close parallels. In Baltic, for instance, *all* deverbal adverb suffixes with a clear background studied by Forssman (2003: 102–116) go back to adjectives, not to nouns. From a formal point of view this approach has two implications. First the instrumental singular in **-iān* must be considerably old. This is unproblematic for (pre-)Lithuanian,

¹⁰ Similarly Zubatý (1894: 136), Forssman (2003: 111).

¹¹ See Skardžius (1943: 326–328), Bammesberger (1973: 62–66), Ambrazas (1993: 42).

¹² See especially Kazlauskas (1968: 192–198).

¹³ Such an option is often not even mentioned in general surveys of adverb derivational morphology (e.g., Ramat 2011, Ricca 2015).

¹⁴ See Forssman (2003: 102–116), with references, for a complete survey.

but less obviously so for oldest stages of Baltic. Second, action nouns in **-ti-* must have been salient enough for instr. sg. **-tjān* to be grammaticalized as an adverb suffix. This is probably unproblematic for early stages of Baltic, but not for (pre-) Lithuanian (the productive suffix for action nouns is *-imas/-ymas*; nouns in *-tis* are well attested, but usually with concretized meaning and/or limited dialectal distribution).

In short, none of the inner-Lithuanian nominal connections of the adverbs in *-čia* is entirely satisfactory.¹⁵ The matter, however, is not completely desperate. It is obvious that Lith. *-čia* < **-tjān* contains the *ā*-stem instr. sg. **-ān*, and derivation from *ti*-stems (thus implying an innovative instr. sg. **-tj-ān* for inherited **-ti-mi*) is far more likely than derivation from a highly questionable class of “*tjā*-stems.” What we do not have is a good scenario of how this ending came to be specialized as a suffix for deverbal adverbs. Uncertainties include chronological and formal issues, but, especially, the typological rarity of the apparent reanalysis verb → action noun → denominal adverb as verb → verbal adverb. Before proceeding further, it will be convenient to take a look at the other Baltic languages.

4. Latvian *-šū(s)*

Old Prussian has nothing to contribute. In view of the meagre morphology of the adverb in the extant Old Prussian texts (perhaps due, in part, to the fact that the translators were non-native speakers), I doubt this is significant.¹⁶ Latvian, on the other hand, has a class of adverbs in *-šū(s)* that has traditionally been compared to the Lithuanian adverbs in *-čia*, e.g., *slepšu(s)* ‘secretly’ (: *slēpt*, *slepju* ‘hide’), *skriešu(s)* ‘running, at a run’ (: *skrīet*, *skreju/skrīenu* ‘run’).¹⁷ Latvian adverbs in *-šū(s)* are regularly made from primary verbs and are far better represented than Lithuanian adverbs in *-čia*. A number of adverbs must be considered separate lexical items (even if very closely associated to their base verbs), but most of them only occur together with the base verb and serve to express that the verbal action is carried out with particular intensity. To give just one example, ME II 107 under *jāšu(s)* gives three examples in combination with *jāt*, *-ju* ‘ride’ and only one in which it complements a different verb. Thus, Latvian adverbs in *-šū(s)* come very close in meaning to

¹⁵ Only for completeness do I mention here the idea that Lith. *-čia* is directly related to the Vedic gerund suffix *-tyā*, sometimes found in the older literature (e.g., Zubatý 1894: 138f.). The arguments against such a view are simply prohibitive: Bl. **-tjān* has an obvious inner-Baltic explanation (**-ti-* + **-ān*); the gerund is probably an Indo-Aryan innovation (it is entirely missing in Avestan); the *-t-* of Ved. *-tyā* looks secondary (it stays in a near to complementary distribution with the more widespread *-yā*); and, finally, the unmarked historical interpretation of *-(t)yā* is as *i*-stem instr. sg. **-(t)-i-eh₁*. See Gotō (2013: 141–144) for more information on the Vedic gerund.

¹⁶ See Rinkevičius (2015: 202f.) for the Old Prussian adverb.

¹⁷ See Zubatý (1894: 136–138), Endzelin (1923: 475f.), MLLVG 710–712, Forssman (2003: 297f.).

the Lithuanian *būdinỹs* or ‘second infinitive’ in *-te*, e.g., *bėgte/bėgtè bėgti* ‘run as fast as possible’, *válgyte vágtyti* ‘eat a lot’, etc. The term ‘second infinitive’ is incorrect. The *būdinỹs* is a converb of manner used to intensify the meaning of the main verb. The only difference between Lithuanian and Latvian is that the *būdinỹs* is part of the morphology of the Lithuanian verb (and, therefore, belongs to the realm of inflection), whereas Latv. *-šu(s)* is regularly described as a class of adverbs (and, therefore, belongs to the realm of derivation).

The class of Latvian ‘intensifying’ verbal adverbs includes the suffixes *-u(s)*, *-in* and *-tin* in addition to *-šu(s)*, e.g., *papīldu(s)* (: *papīdīt* ‘fill up, add’), *sēžu(s)* (: *sēdēt* ‘sit’), *cepin* (: *cept* ‘bake’), *nācin* (: *nākt* ‘come’), *bēigtin* (: *bēigt* ‘finish’), *duřtin* (: *duřt* ‘stab’). They are not particularly common in the modern language, being mostly found in the *dainas*. The impression one gets, as in the case of the Lithuanian adverbs in *-čia*, is that of an inherited class that has been losing in relevance. The origin of Latv. *-tin* is perfectly clear. It is directly related to the Lithuanian participle of necessity in *-tin*as (e.g., *nėštinas*, *-à* ‘to be carried’, from *nėšti* ‘carry’), and more specifically to adverbs in *-tinai* like *imtinai* ‘inclusive’ (: *imti* ‘take’), *iřskirtinai* ‘exceptionally’ (: *iřskirti* ‘single out, separate’), etc.¹⁸ Latv. *-in* must be related to Lithuanian verbal adjectives in *-inas* of the type *tėkinas*, *-à* ‘running, at a run’ (: *tekėti* ‘flow, run’). It can hardly be a coincidence, however, that *-in* only differs from *-tin* in the absence of *-t-*. It is likely that the grammaticalization of *-in* was triggered, precisely, by the existence of older *-tin*. The same may well hold true for *-u(s)* beside *-šu(s)*. It is generally agreed that the *-s* is secondary. This seems obvious, even though it is not completely obvious where *-s* comes from.¹⁹ Adverbs in *-u(s)* are traditionally derived from *ā*-stem instr. sg. **-ān*, even though this only occasionally builds verbal adverbs in Lithuanian.²⁰ If so (there is hardly any alternative at hand), the grammaticalization of Latv. *-u(s)* must have begun in cases in which a primary verb was found beside an *ā*-stem or an adjective (e.g., Latv. *klusēt* ‘be silent’ ~ *kluss* ‘silent’). It is not excluded that adverbs originating in the *o*-stem instr. sg. **-ō* collapsed with adverbs from *ā*-stem instr. sg. **-ān*, as both gave Latv. *-u*. The point to stress is that the productivity of *-u(s)* as a class of intensifying verbal adverbs looks like a specific Latvian development postdating the breakup of East Baltic. This is not the case of Latv. *-šu(s)*, whose agreement with Lith. *-čia* guarantees at least Proto-East Baltic antiquity. The antiquity of this suffix is confirmed by the word equations Lith. *týčia/tyčia* ‘on purpose’ = Latv. *tīřšus* (without derivational base) and Lith. *riřčia* ‘at a trot’ = Latv. *riķřu* (displaying a specialization for horses that is absent from

¹⁸ See LKG II 525–533. Note that *-tinai* is used as a *būdinỹs* (beside *-te*) in some dialects, cf. LKG II 421f.

¹⁹ See Zubatý (1894: 137), Endzelin (1923: 459), Forssman (2003: 134) for different suggestions.

²⁰ See Zubatý (1894: 123–129), Endzelin (1923: 474), Forssman (2003: 326f.). See Zubatý and Endzelin, *loc. cit.*, for arguments against the alternative of scholars like J. Schmidt or Mühlenbach, who started from the present active participle (an idea occasionally repeated later, e.g., Kalnača & Lokmane 2021: 328).

Lith. *risti*, *rita*, Latv. *rist*, *ritu* ‘roll’, but recurs in Slavic, cf. OCS *ristati*, *rištq*, ORu. *ristati*, *rišču* ‘run’, OPol *rześciq* ‘at a trot’ < **rbstvjq*).²¹

The specialization of Latv. *-šu(s)* to intensify the meaning of the main verb looks clearly secondary. It is not at all found in Lithuanian; it is not the only one of Latv. *-šu(s)*; and it is absent from Lith. *risčia*/Latv. *rikšu* and Lith. *tyčia*/Latv. *tīšus*. The specialization of Latv. *-šu(s)*, like that of Latv. *-tin* (= Lith. *-tinai*), is probably related to the loss of the inherited *būdinys* in **-tēn* in Latvian, but this is not the essential point here. As for Lith. *-čia*, Latv. *-šu(s)*, the null hypothesis seems to be that (E)Bl. **-tjān* made plain modal adverbs from primary verbs. This, however, leaves the typological problems mentioned above (§3.3) untouched. Deverbal adverbs are rare, and they normally derive from adjectives, not from action nouns (unquestionably the best option for **-tjān*).

5. Proto-Baltic infinitives and converbs

In my view, a proper approach to (E)Bl. **-tjān* should begin by acknowledging that the derivational channel verb → action noun → verbal adverb (*bégti* → *bégtis* → *begčia*) that it demands is inherently implausible. A possible way out, in my view, is to violate the bias towards linear developments mentioned in §1 and add an extra step: verb → action noun → converb → verbal adverb. In what follows I will try to ground this extra step.

Proto-Baltic is not usually described as a language with converbs, a concept one will look for in vain in the older (and recent!) literature on Baltic historical grammar. Lithuanian, Latvian and Old Prussian, it is true, have ‘gerunds’ (as converbs are often called in traditional grammars),²² but these look clearly recent in all three languages and, to my knowledge, have never been projected back into Proto-Baltic.²³ We will return to the modern Baltic gerunds immediately. What I have in mind here with ‘Proto-Baltic converbs’ is something different. In order to see the matter in its proper perspective it is necessary to begin with the related concept of ‘Proto-Baltic infinitives’ as discussed in Villanueva Svensson (2019). I briefly present the main arguments and refer to this article for a detailed argumentation.

For Proto-Slavic we can safely reconstruct an infinitive (OCS *da-ti* ‘to give’) and a supine (OCS *da-tb*). Whereas the identification of the latter with the Baltic supine has always been clear (OCS *da-tb* = Lith. *dúo-tų*, OPr. inf. *poū-ton* < Bl.-Sl.

²¹ See Villanueva Svensson (2017) for a detailed study of this word family.

²² See Haspelmath (1995: 45f.) for some of the terminological issues associated to converbs. Global reference is made to Haspelmath’s article for the concept of converb as currently understood in typological literature. As for non-finite verb forms in more general terms, in this paper I am tacitly following Ylikoski’s (2003) approach.

²³ This can be confidently called the *communis opinio* (e.g., Zinkevičius 1981: 154, among others).

*-*tun* < PIE *-*tum*, cf. Lat. -*tum*, Ved. -*tum*), the prehistory of the infinitive has been definitely clarified only recently.²⁴ CSI. *-*ti* continues PSI. *-*tī* from Bl.-Sl. *-*tī*, itself the regular outcome of PIE *tī*-stem dat. sg. *-*tejēj* (cf. Ved. -*taye*). Bl.-Sl. *-*tī* was regularly shortened to *-*ti* in Proto-Baltic, whence Lith. -*ti*, Latv. -*t*, OPr. -*t*.²⁵ The point to stress here, however, is not the formal side of this reconstruction, but the fact that Balto-Slavic had achieved a relatively ‘modern’ stage, with just one infinitive used both as a complement after certain verbs and to express purpose, and the existence of a supine as the lone reminder of a more complex past (with several ‘infinitive’ endings mainly used to express purpose).²⁶ The Balto-Slavic system, however, was drastically altered in Proto-Baltic. This branch created at least three other infinitive endings in addition to *-*ti*: OPr. -*twei* < Bl. (dat. sg.) *-*t(u)uēj*; Lith. dial. -*tie*, Latv. -*tiē*-s < EBl. *-*tē* < Bl. (loc. sg.) *-*tej*; Lith. dial. -*tie* < EBl. *-*tē* < Bl. (dat. sg.) *-*tej*. The major claim of Villanueva Svensson (2019) is that these endings must be exclusive Baltic coinages because all of them present uniquely Baltic morphological features: OPr. -*twei* and EBl. *-*tē* go back to *ē*-stems (an exclusive Baltic formation),²⁷ whereas EBl. *-*tē* continues an exclusively Baltic *tī*-stem dat. sg. *-*tej* (for *-*ti* < Bl.-Sl. *-*tī* < PIE *-*tejēj*, with the ending of the consonant-stems). The dossier of Proto-Baltic infinitives may well have been larger,²⁸ but this is not the place for an extended discussion.

Turning to converbs, the historical Baltic and Slavic languages have ‘gerunds’ (Lith. *pādalyvis*, Ru. *deepričastie*) of transparent participle origin (Lith. *nėšant*, Latv. *nesuot*, Ru. *nesjá*, Pol. *niosąc*, etc.). Participles are a major source of converbs cross-linguistically, especially in Europe.²⁹ The development of converbs, on the other hand, has barely begun in Old Church Slavonic,³⁰ whereas in the Baltic languages origin in absolute constructions (*dativus absolutus*) emerges with notorious clarity from the data.³¹ In other words, we are dealing with fairly recent, convergent developments of the Baltic and Slavic languages in accordance with the general linguistic landscape of modern Europe. As for earlier stages of the language, it seems quite certain that Indo-European had no converbs, and the same holds true for Balto-Slavic (at least, there is no positive evidence to reconstruct one). It follows that Baltic did not inherit converbs. Although the issue is hardly ever addressed explicitly, an obvious implication would be that it did not create one until fairly recently. If, however, Proto-Baltic created new infinitives, there is a distinct possibility that it created new converbs as

²⁴ See Hill (2016: 216–218), Villanueva Svensson (2019).

²⁵ See Villanueva Svensson (2023: 74–76) for the phonology, building on Hock (1995) and Hill (2016: 214–222).

²⁶ See Zehnder (2011) for the function of the PIE infinitives (*recte* ‘converbs of purpose’).

²⁷ See Villanueva Svensson (2023: 73f.), with references, for the origin of the Baltic *ē*-stems.

²⁸ See Villanueva Svensson (2019: 212) for some candidates.

²⁹ Cf. Haspelmath (1995: 17).

³⁰ Cf. Vaillant (1964: 252f.).

³¹ Cf. Zinkevičius (1981: 152–154).

well. This is something that cannot be strictly speaking proved, but there are several arguments suggesting that it is likely to have been the case.

There is, first of all, the Lithuanian *būdinys* in *-te* mentioned above (§4). Lith. *-te* goes back to the instr. sg. **-tēn* of action nouns in **-tē-*, an exclusive Baltic formation. More importantly, it looks like a foreign body both within the Lithuanian verb system, where it is not particularly common, and among the Indo-European languages, both ancient or modern. Although the argument is partly circular, a second reason to operate with a Proto-Baltic system of converbs is the typological oddity of the grammaticalization process leading to Bl. **-tjān* *qua* adverb suffix. If, however, Bl. **-tjān* was originally a converb, the typological oddity disappears, as adpositions and case forms of verbal nouns are the most common source of converbs altogether.³² In this connection it is surely no coincidence that all exclusive Baltic infinitives and converbs we have met so far begin with *-t-*. Whatever exactly happened, it seems that at an early stage of Proto-Baltic something propitiated the grammaticalization of oblique cases of action nouns in **-ti-*, **-tē-*, **-t(u)uē-* as non-finite verb forms.

As for the process itself, in Villanueva Svensson (2019: 215–217) I have suggested that the expansion of the infinitive was due to Uralic influence. If correct, this would evidently account for the creation of a complex system of converbs as well. Non-finite verb forms would then join the secondary local cases and a few other features in reflecting a subtle influence of Uralic on the grammatical structure of Proto-Baltic (the other side of the coin, so to speak, of the much more visible lexical influence of Baltic on Uralic). The issue, important as it is in and of itself, cannot be discussed in detail here.³³ At any rate, Uralic influence would not only explain the expansion of the infinitive (a phenomenon that would otherwise be hard to understand), but also the existence of a class of formally related converbs.³⁴

6. Proto-Baltic **-tjān* as a converb of manner

It seems reasonable to assume, then, that Baltic created a series of converbs out of case forms of action nominals beginning with *-t-*, and that Bl. (instr. sg.) **-tjān* (Lith. *-čia*, Latv. *-šu(s)*) was one of them. It most likely was a converb of manner expressing how the verbal action is carried out. In what follows we will take a closer look at the implications of this analysis.

A question that immediately arises is that of the *range* of the system. Did Proto-Baltic possess a relatively large number of semantically specialized converbs? If this was the case, how many? The same problem arises with the Proto-Baltic infinitives.

³² Cf. Haspelmath (1995: 17).

³³ See the papers collected in Junttila (2015).

³⁴ See Ylikoski (2022: 944–947) for more information on Uralic infinitives and converbs.

I doubt the evidence at our disposal allows for a definite answer, but future work may well bring new potential examples into the discussion (I insist that Proto-Baltic has not hitherto been studied from this perspective).

As noted above (§3, 5), one of the main reasons to assume that Bl. **-tjān* was a converb is that this entails a typologically well-paralleled process, whereas the creation of deverbal adverb suffixes from case forms of action nouns appears to be very rare (at least among the Indo-European languages). If Uralic influence was the trigger, it is interesting to note that the creation of the gerund in Indo-Aryan has also been attributed to influence from local, non-Indo-European languages.³⁵ The importance of areal factors in the development of converbs is of course well known.³⁶ Proto-Baltic, if correctly interpreted, would add one more example. At some point the Proto-Baltic system of converbs collapsed and the Baltic languages evolved into typologically more normal systems from the point of view of the Indo-European language family. In the case of Bl. **-tjān* the converb was not simply lost, but was degrammaticalized into a deverbal adverb. It remains to be seen whether converb loss is a major source of deverbal adverbs, and how both formations interact (I am not aware of typologically-oriented studies on the matter).

After the collapse of the Proto-Baltic system of infinitives and converbs each Baltic language followed its own path. Unfortunately, it is impossible to know whether the system survived into Proto-East Baltic and, accordingly, whether Lithuanian and Latvian inherited a converb in **-tjān* or just an adverb suffix. In Lithuanian, at any rate, it was gradually lost. Examples are few (see above §2), and the impression one gets is that the formation has been dying out for some time. A curious development is that the class of adverbs in *-čia* was modestly revitalized through the addition of a few deinstrumental adverbs of nominal origin, most saliently *nakčia* and *slapčia*. At this point, however, a class of *deverbal* adverbs in *-čia* effectively ceased to exist. Latvian does not appear to have shared in the latter development. At least, there are no adverbs in *-šu(s)* of clear denominal origin. Plain modal value is still well attested, but *-šu(s)* has been specialized to intensify the meaning of the main verb and is essentially synonymous with *-u(s)*, *-in* and *-tin*. It must remain a task of the future to uncover how this exactly happened.

An interesting corollary of this approach to Bl. **-tjān* is that the innovated instr. sg. **-i-ān* appears to go back to Proto-Baltic. This, however, is in contradiction with the internal evidence of Lithuanian, which rather suggests that the expansion of *i*-stem instr. sg. *-ia* over *-im(i)* is not very old (see above §3.3). This is mildly confirmed by the lack of unambiguous denominal adverbs in *-šu(s)* comparable to Lith. *nakčia*, *slapčia* in Latvian. Besides, it is methodologically unsound to operate with millennia of free variation. It must be noted, at any rate, that the influence of

³⁵ E.g., Burrow (1973: 374f.).

³⁶ See e.g. Ylikoski (2022: 947).

the feminine \bar{a} -stems took place in slightly different ways in Slavic and Lithuanian. Pre-Sl. $*-i\bar{i}\bar{a}n$ (OCS *ko**st**bj**o***) is most straightforwardly interpreted as remade after \bar{a} -stem $*-ai\bar{a}n$ (OCS *-o**j**o*),³⁷ whereas in pre-Lith. $*-i\bar{a}n$ we have the sheer addition of $*-\bar{a}n$ to the stem vowel $*-i-$. The parallelism of Slavic and Lithuanian, however, clearly indicates that we are dealing with a trivial development that could easily repeat itself more than once (or twice). The grammaticalization of the converb of manner in $*-ti\bar{a}n$ implies that it also happened, independently, at an early stage of Proto-Baltic.

7. Conclusions

The results of this paper are easily summarized. Lithuanian adverbs in *-čia* continue an earlier layer of deverbal adverbs of manner in $*-ti\bar{a}n$. This is fully confirmed by the Latvian adverbs in *-šus*. Deinstrumental origin has always been clear, the most likely derivational base being action nouns in $*-ti-$. This, however, is typologically rare. As a way out, I propose that instr. sg. $*-ti\bar{a}n$ was grammaticalized as a converb of manner, and only much later demoted to a deverbal adverb. This is in accordance with other facts suggesting that Proto-Baltic acquired a complex system of infinitives and converbs, probably under Uralic influence, and later lost it for systems typologically more akin to those of the modern Indo-European languages of Europe.

If correct, the history of these adverb suffixes has methodological implications that outweigh their rather modest importance in the synchronic grammars of Lithuanian and Latvian. That adverbs and other *indeclinabilia* may preserve relics of prehistoric morphology requires, I believe, no justification. More interesting is the idea that the tacit bias towards linear developments (at first sight just a common-sense application of Occam's razor) may be misleading. We are dealing with millennia of unrecorded linguistic prehistory and it is virtually certain that many developments led to transitional subsystems that were later lost. We should be ready to follow the track when there is enough evidence to do it.

³⁷ Here I am tacitly assuming that the Slavic \bar{a} -stem ending was $*-o**j**o$ (standardly explained as taken from the pronominal inflection), and that apparent variants in $*-o$ are secondary. See Olander (2015: 163–166), with references.

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APSTĀKĻA VĀRDU SUFIKSA LIET. -ČIA, LATV. -ŠU(S) CILME

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Lietuviešu apstākļa vārdi ar sufiksu *-čia* un latviešu apstākļa vārdi ar sufiksu *-šus* šķietami saistāmi ar pirmbaltu (austrumbaltu) deverbālu apstākļa vārdu klasi **tjān* formā. Ir skaidrs, ka **tjān* ietver *ā*-celma vsk. instr. formu **ān*, lai gan, visticamāk, atvasinājuma pamatā ir darbības vārda lietvārdi ar sufiksu **-ti-*. Tomēr šāds modelis tipoloģiski ir rets. Kā risinājumu es piedāvāju, ka instr. sg. **tjān* tika gramatikalizēts kā darbības veida konverbs un tikai krietni vēlāk pārveidots par deverbālu apstākļa vārdu. Tas saskan ar citiem faktiem, kas liecina, ka baltu pirmvalodā bija izveidojusies sarežģīta infinitīvu un konverbu sistēma, iespējams, somugru valodu ietekmē, kas vēlāk tika zaudēta.

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