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THE ORIGIN OF THE LITHUANIAN ILLATIVE

Abstract. The paper deals with the origin of the Lithuanian illative case. The illative, found in Lithuanian since the very begin of its text records in the early 16th c., is a recent formation which, in the given form, may have emerged as late as after the disintegration of Proto-East-Baltic. In both numbers the illative case-forms of Lithuanian nouns emerged out of directional adverbs, which were in turn based on adverbially used case-forms of nouns. The marker of the Lithuanian illative is an inherited suffix of directional adverbs which is also attested in Germanic, Italic and probably also Tocharian. The situation in Tocharian makes it probable that the marker of Lithuanian illative was originally used for deriving adverbs not with primarily directional but rather with perlatival semantics.

Keywords: Lithuanian; East Baltic; historical morphology; inflection of nouns; illative case.

1. Introduction[1]

The special case form of nouns, pronouns and adjectives called the "illative" is widespread in the Aukštaitian dialects of Lithuanian (cf. LKA 3, 54–55, 76, map 48). Functionally, the illative is the dynamic counterpart to the Lithuanian inessive case. While the latter denotes the location of an object in a particular place, the former depicts this place as the goal of a movement.

The morphology of the illative case forms is not absolutely uniform across the different Lithuanian dialects. However, most of the dialects possessing the illative share the ending *-na* or *-n* at least in the singular. Fairly representative for the formation of the illative is the picture drawn, for instance, in S e n n's

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(1966) handbook of Lithuanian. Cf. (1) where the most important inflectional classes of nouns are given, for the sake of simplicity and clarity, only in two cases (and only for nouns belonging to one of the two immobile accentual paradigms, i.e. AP 1 or 2).

(1)	a-stems	ia-stems	ā-stems	ė-stems	i-stems
nom. sg.	krū́mas	ū́kis	píeva	ùpė	rū́šis
ill. sg.	krū́man	ū́kin	píevon	ùpėn	rū́šin
ill. pl.	krū́muosna	ū́kiuosna	píevosna	ùpėsna	rū́šysna

The illative is robustly attested from the very beginning of the Lithuanian text records. Cf. (2) for several texts composed already in the 16th c.[2]

(2)	a-stems	ia-stems	ā-stems	ė-stems	i-stems
a	Mažvydas, *Catechism* (1547)				
sg.	wardana	--	bafʒniczian	ruſtibien	ſchalin
pl.	--	--	rąkaſn	--	--
b	Vilentas, *Catechism* (1579)				
sg.	wardana	--	iſchkalon	wenczawoniſten	--
	wardan				
pl.	--	--	pekloſna	--	--
c	Daukša, *Catechism* (1595)				
sg.	niekan	--	łigón'	ſu̧kiben	ſʒirdin
pl.	namůsn'	--	kanczioſn	nůdemeſn'	--

In the longer texts which mostly date from the 17th c. (cf. 3 for two such younger sources), the number of the illative attestations increases. According to Kavaliūnaitė (2002, 84–85), in Chylinski's translation of the New Testament (cf. 3b) the illative is attested no less than 891 times.

(3)	a-stems	ia-stems	ā-stems	ė-stems	i-stems
a	*Knyga Nobažnistės Krikščonikiškos* (1653)				
sg.	grabaná	kilpinin	wieton	ʒ́iamen	ßirdin
	dàrʒana		ránkon	ſaułen	ugnin
	graban		peakłon	giłen	ßalin

		ſudan		báʒnićion	łáywełen	ſmertin
		mieſtán		wagon	broliſten	
	pl.	peduoſná	erſkiećiuoſn	ránkoſná	támſibeſna	ßirdiſná
		spaſtuoſna		wietoſn		duriſna
		namuoſna		mukoſń		ausiſna

b   Chylinski, *New Testament* (1658)

	sg.	eʒeran	lieʒuwiń	trobon	łaywen	ugnin
		kieman	medʒian	rąkon	ʒiamen	auſin
		mieſtan		wieton	kielonen	debeſin
	pl.	kiemoſna	erßkiecioſna	marioſna	upeſna	ßyrdiſná
		naſroſna		rąkoſna		auſiſna
		namoſna		eldyoſna		krutiſna

Since the nasal in the Lithuanian illative singular ending is not lost in the same way as, for instance, in the accusative singular (cf. Lith *výrą*, *rañką* vs. OPr *wijran*, *rānkan* etc.), this nasal must have originally been followed by a vowel. The variation between Old Lith <-n> and <-na> (in Mažvydas, 2a, Vilentas, 2b, and *Knyga*, 3a) shows that originally the ending was something like *–na* not only in the plural but also in the singular. Cf. the consistent <-na> in the correction layers of Bretke's translations (1579–1590, see G e l u m b e c k a i t ė 1997, 192; T h i e s 2015, 245). Apparently, the final vowel was lost in the singular in different dialects at different times, beginning as early as in the late 16th c. South Aukštaitian around Valkininkai and Marcinkonys and the East Aukštaitian dialect islands of Gervėčiai and Kamojys preserved *-na* also in the singular until recently (i.e. *miškanà*, *šakonà*, *žolėnà* and *pirkiõna*, *žemė̃na* etc., cf. Z i n k e v i č i u s 1966, 209; K a z l a u s k a s 1968, 164; LKA 3, 54–55, map 48).

In the plural, the loss of *-a* in *-sna* is attested as early as in Mažvydas' and Daukša's writings (cf. 2a and c). The vowel is mostly preserved but occasionally also lost in the younger 17th c. sources (cf. especially *Knyga*, 3a, and Chylinski, 3b). In contrast to the singular, numerous contemporary South Aukštaitian and southern East Aukštaitian local dialects preserving the illative keep the vowel in the plural, i.e. display *-sna* (cf. again LKA 3, 76, map 48). This *-sna* is capable of bearing stress, cf. V i d u g i r i s (1960, 119–122; 2004, 231), Z i n k e v i č i u s (1966, 213–214; 1982, 30) on *juosnà*, *josnà* etc. beside *katrúosna*, *katrósna* etc. in the West Aukštaitian dialect island of Zietela. Apocopated forms such as *dvarúosn*, *žemė́sn* etc. are attested in East Aukštaitian around Zarasai and Ukmergė. In the bulk of East Aukštaitian spoken to the north of the line Ukmergė, Molėtai, Utena, Zarasai, the apocope

of -*a* in -*sna* ultimately led to the loss of the nasal, generating *krūmuõs*, *pievõs*, *žemė̃s* etc. The same is true for the East Aukštaitian dialect island of Lazūnai where the regular character of the development is confirmed by a similar loss of the word-final vowel and, subsequently, of the nasal in the adverb *daugė̃s* < *daugèsni*, -*ė̃sni* 'more' (cf. already A r u m a a 1930, 65). The dialects attesting illative plural endings which cannot be assumed to straightforwardly reflect -*sna* will be discussed in subsection 3.6 below.

The illative case of Lithuanian is not necessarily an ancient formation. In constrast to such cases as, for instance, the dative or the instrumental, it does not possess a counterpart either in most closely related Slavonic or in such early attested Indo-European languages as Sanskrit or Latin. The purpose of the present paper is to establish the origin of the Lithuanian illative. In what follows, I will try to find a source and draw a scenario providing a coherent explanation of all variant forms of the illative case in all dialects of Lithuanian.

To achieve this goal, I will first try to establish how old the Lithuanian illative case is and in what part of grammar or lexicon one has to look for its origin. This is the topic of section 2 where it will be shown that the Lithuanian illative case is a recent formation reflecting an ancient derivational pattern of directional adverbs. The goal of section 3 will be to reconstruct how the directional marker used originally for deriving adverbs could be secondarily extended to be used on Lithuanian nominals. Finally, in section 4 a case form of the remotely related Tocharian will be discussed which is superficially very similar to the Lithuanian illative case. In this section I will argue that, though the marker of the Tocharian "locative" is etymologically related to the endings of the Lithuanian illative, the development of this case form in Tocharian must have followed a different path. The semantics of the Tocharian locative make it necessary to re-address the original function of the Lithuanian illative marker by taking into account more evidence from a whole range of Indo-European daughter languages. The last section of the paper, section 5, will summarise the results achieved.

2. Age of the formation and the etymology of the marker
2.1. The illative in Latvian
Though the Lithuanian illative case has no counterpart in contemporary Latvian, it is traditionally believed to be at least of Proto-East-Baltic age (cf. recently S t a n g 1966, 230; E n d z e l ī n s 1971, 166–167; Z i n k e v i č i u s 1980, 256; S e r ž a n t 2004a, 117–119; R o s i n a s 2005, 252; K a l n i ņ š 2019, 143–144; among many others). The reason for this assumption is the existence

of a similar looking case form of nominals in the most ancient Old Latvian texts, which date from the late 16th c.[3]

However, this evidence is not sufficient. In Old Latvian the alleged illative is confined to the singular, where a special case form ending in <-an>, <-en> etc. is attested only in printed texts, e.g. <tan wetan> 'to that place', <semmen> 'to the earth', <tan wackaran> 'that evening' etc. (cf. Z u b a t ý 1896, 278–282; E n d z e l ī n s 1923, 339–340; V a n a g s 1992). As has been recently shown by N i l s s o n (1996–1997; 1999; 2002), such word forms are in all probability misprints for the dative singular in *-am* etc. and/or the locative singular in *-ã/-â* etc. The background of the confusion was the wrong resolution of the word-final macron which in 16th c. manuscripts could be used as abbreviation for any nasal, i.e. *-n* or *-m*, but also as a diacritic indicating vowel length. This seems to be the most plausible, if not the only possible explanation of, for instance, the strange vacillation between <tan gabbolan>, <tam gabbolam> and <tā gabbolā> 'in this paragraph' in the section headings of Georg E l g e r 's writings (ca. 1640). It follows that the alleged Latvian counterpart of the Lithuanian illative case probably never existed in spoken Latvian.

The same explanation applies, according to N i l s s o n (2002, 133–135), also to most adverbs ending in Old Latv <-an>, i.e. <exan>/<ekſan>/<exkan> etc., <prexan>/<preexkan>/<prekſʒan> etc. Most obviously, such adverbs represent Latv *ìekšã, -â* 'in, into', *prìekšã, -â* 'in front, ahead' etc., which historically reflect the locative singular of nouns (*ìekša* 'inside, interior', *prìekša* 'front, front side' etc.). However, Old Latvian sources also attest <ſeitan>/<ſʒeitan> 'hither' and <teitan> 'thither', which possess exact counterparts in contemporary Latvian (cf. E n d z e l ī n s 1923, 467–468; F o r s s m a n 2003, 154). According to ME 4, 14, 157, these counterparts *šeîtan* 'here, hither' and *teĩtan/teîtan* 'there, thither' are attested in western Livonian (Dundaga, Kandava, Zūras) as well as in several Central Latvian (Bauske, Seseve but also Rūjiena) and High Latvian (Bērzaune) local dialects. Most obviously, these directional adverbs are based on dialectal Latv *šeĩt/šeît* 'here' and *teît* 'there' which, in turn, belong etymologically to Liv, Central Latv *šeî* 'here', *teî* 'there' (the counterparts of contemporary Standard Latv

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[3] The unclear <andang ... n> 'in heavens' found in a 15[th] c. Old Prussian fragment and read <andangv sv[e]n> by B e z z e n b e r g e r (1878, 131–141) was later corrected into <andangonsv[e]n> by M i k a l a u s k a i t ė (1938). In my view, both the reading of this form and its interpretation as illative plural in inessive function remain too insecure to be used as evidence for the Proto-Baltic age of the illative case. Cf. Z i n k e v i č i u s (1980, 256) for similar doubts.

šiê 'here', *tiê* 'there'). A similar case seems to be *nuôst/nuõst* 'away' ~ Central Latv *nuôstan* 'away' (in Lēdmane, cf. ME 2, 857–858).

The pattern Liv, Central Latv *šeît* 'here', *teît* 'there' ~ *šeîtan* 'hither', *teîtan* 'thither' is formally and functionally very close to the Lithuanian illative case. Since the –*n* in *šeîtan*, *teîtan* is preserved, these adverbs must have originally ended in a short vowel, which was later regularly apocopated. This means that for the recent prehistory of Latvian one must assume something like pre-Latv **šeîta* 'here', **teîta* 'there' → **šeîta-nV̆* 'hither', **teîta-nV̆* 'thither' (where V̆ might be pre-Latv **a* or **i*). This derivational pattern is strikingly similar to Lith *čià* 'here, hither' ~ *čiõn* 'hither'.

The directional adverb Lith *čiõn* is attested as <cʒion> as early as in Daukša's *Catechism* (1595). In later sources such as, for instance, in *Knyga* (1653), <ćon>, <ćoń>, or <ćion> is frequent. The only difference between Liv, Central Latv *šeît*, *teît* ~ *šeîtan*, *teîtan* on one hand and Lit *čià* ~ *čiõn* on the other is the quantity of the final vowel in the derivational base. This vowel must have been short in the pre-apocope Latvian but long in Lithuanian prior to the well-known shortening of word-final acute vowels by Leskien's Law. However, the Central Latvian variant form *teîtãn* 'thither' (attested around Valmiera and Priekule, cf. ME 4, 157) seems to imply pre-Latv **teîtã* 'there' → **teîtã-na* 'thither', which would be a perfect structural match of pre-Lith **tjá́* 'here, hither' → **tjá́-n'a* 'hither'.[4] The derivational base pre-Latv **teîtã* 'there' might be directly reflected as *teît* 'there' in the Livonian dialect of Latvian where not only pre-Latvian short but also pre-Latvian long word-final vowels have been regularly lost in polysyllabic words (cf. E n d z e l ī n s 1923, 55–56).

If all this is correct, the situation in the common prehistory of Lithuanian and Latvian has to be reconstructed as given in (4). Since Liv, Central Latv *šeîtan*, *teîtan* and Lith *čiõn* can hardly be separated from the illative case of nominals, the marker of the directional adverbs in question must be reconstructed with the same vowel timbre, i.e. as Proto-East-Baltic **-na*.

It follows that in both East Baltic languages, Lithuanian and Latvian, new words and/or word forms with directional semantics could be constructed by adding **-na*. In Latvian this derivational pattern is attested for at least

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[4] Here and in the following, in all pre-Lithuanian, Proto-East-Baltic and Proto-Baltic reconstructions the difference between the acute and the circumflex intonations on long vowels and diphthongs will be marked respectively by ´ over the acute long vowel or the first component of an acute diphthong and ˜ over the circumflex long vowel or the second component of a circumflex diphthong. The place of word stress will be marked, where possible, by ' preceding the stressed vowel or diphthong.

three adverbs based on other adverbs with locational/directional semantics.[5] In Lithuanian the pattern is attested for at least one adverb derived from the adverb for 'here, hither', but also, as the illative case, for nouns, pronouns and adjectives.

(4)	locational/directional adverb		directional adverb
a	Proto–East–Balt *-a	→	*-a-na
	(Liv, Central Latv *šeĩt/šeît, teît, nuôst/nuõst*)		(Liv, Central Latv *šeîtan, teĩtan/ teîtan, nuôstan*)
b	Proto–East–Balt *-ā́	→	*-ā́-na
	(Liv Latv *teît*, Lith *čià*)		(Central Latv *teîtān*, Lith *čiõn*)

A situation like that we find in the case of the alleged East Baltic illative, i.e. a case form of nominals in one language (i.e. Lithuanian) but merely a derivational device used in adverbs in the other (i.e. Latvian), is not uncommon. From a cross–linguistic perspective, such a situation can emerge by two very different processes. First, a special case form of nouns, inherited by both languages, can be lost in one of them, leaving only lexicalised traces as adverbs. Such a development is responsible, for instance, for the adverbs *domī* 'at home' and *humī* 'on the earth' in Latin where they reflect the locative case of respectively *domus* 'house' and *humus* 'earth, soil'. The PIE locative case, which has been lost as a special case form of nouns in Latin, is preserved in several distantly related IE languages (such as Sanskrit, Avestan, Old Russian etc.). Second, a marker forming adverbs with special semantics, inherited by both languages, can in one of them be secondarily extended to nouns and pronouns, ultimately creating a new case. This development is attested, for instance, in the Homeric dialect of Ancient Greek, where the model *ekeĩ* 'there' ~ *ekeĩ-then* 'from there' gave birth to a productive and therefore virtually inflectional pattern *agorḗ* 'meeting', *Troíē* 'Troy' → *agorḗ-then* 'from the meeting', *Troíē-then* 'from Troy' etc. (cf. R i s c h 1974, 356–358).

Which of the two possible explanations is accurate in a particular case is not always easy to decide. However, as far as the East Baltic illative is concerned, the latter scenario seems to be preferable for the following

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[5] In local dialects of Latvian, the pattern seems to have become mildly productive, cf. ME 4, 107 on *šur̃p* ~ *šurpan* 'hither' (in folk songs). Since *-p* in Latv *šur̃p* etc. is the etymological counterpart of the Old Lithuanian allative case marker *-pi* (cf. recently F o r s s m a n 2003, 158–159), *šurpan* with its *a* can only be explained as a recent formation emerged on the model of *šeît, teît* ~ *šeîtan, teîtan*.

reasons. The directional adverb Lith *namõn* 'homeward' is clearly ultimately based on the noun *nãmas* 'house, home'. However, the adverb cannot reflect the illative singular of the noun, because this case form of *nãmas* is *namañ*. At the same time, *namõn* 'homeward' can be easily explained as derived from the inherited adverb *namõ* 'homeward' (on which see recently V i l l a n u e v a S v e n s s o n 2017). The same is true for Lith *čiõn* 'hither' which is evidently based on *čià* 'here'. In this second case, no noun can be made responsible for the directional adverb.

Lith *namõ*, *čià* → *namõn*, *čiõn* and Liv, Central Latvian *šeît*, *teît* → *šeîtan*, *teîtan* seem to indicate that the marker of the Lithuanian illative descends from a suffix which originally, i.e. in Proto-East-Baltic times, was used for deriving directional adverbs from other adverbs.[6]

2.2. Directional adverbs in Proto-Germanic

This conclusion suggests an etymological relation between Proto-East-Baltic *-na in directional adverbs and Proto-Germanic and/or pre-Germanic *-nV̆, which also must be assumed for directional adverbs derived from other adverbs. The Proto-Germanic pattern, given in (5), has most recently been discussed by K r o o n e n (2010). Note that Proto-Gmc *uppV̆ and *uttV̆ given in (5b) and (5c) presuppose pre-Gmc *up-nV̆ and *ut-nV̆, the geminate being due to the well-established Kluge's Law (on which most recently K r o o n e n 2009).

(5)	locational/directional adverb		directional adverb
a	Proto-Gmc *ini 'in'	~	*innV̆ 'inward'
	(Goth, OE, OHG *in*, ON *í*)		(Goth, ON *inn*, OHG *īn*)
b	Proto-Gmc *uba 'under, over'	~	*uppV̆ 'upward'
	(Goth *uf*, ON *of*, OHG *ob*)		(ON *upp*, OHG *ūf*)
c	Proto-Gmc *utz 'out'	~	*uttV̆ 'outward'
	(Goth *us-*, OHG *ur-*, *ar-*)		(OE *ūt*, OHG *ūz*)

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[6] Adverbs like Lith *čiõn* etc. are sometimes not regarded as actual derivatives of *čià* (< *pre-Lith *tjā́) but rather as variant forms of *čià* etc., analogically "enlarged" by *-na taken from the illative case of nouns (cf. F o r s s m a n 2003, 153). This view is implausible for several reasons. First, such an explanation can hardly be applied to Latvian where the reflex of *-na is ascertained for adverbs only. Second, the Lithuanian marker of the illative case is not a clitic, capable of attaching itself to any stressed word, but a bound morpheme. Bound morphemes can only be transferred by means of morphological analogy, i.e. extension of a pre-existing inflectional or derivational pattern. It is difficult to imagine how such an extension could generate, for instance, Lith *namõn*.

The adverb Proto-Gmc *in-i 'in' given in (5a) reflects PIE *én 'inside, in' whose other descendants in the daughter-languages are Gk *en*, Lat *in* 'inside, in', Latv *ìe-* 'in'. The *-i in Proto-Gmc *in-i (< pre-Gmc *en-i) reflects a particle which frequently attaches itselfs to local adverbs (cf. Gk *en*, *-per* ~ *ení*, *perí* etc., see LIPP 2, 224–225).

Proto-Gmc *uba 'up' given in (5b) descends from PIE *úpo which is also reflected in Skt *úpa* 'toward' and OIr *fo* 'toward, into; on, over; under, beneath'. The derivational system, in which PIE *úpo is embedded, is described in (6). Note that the simplification of PIE geminates, as assumed in (6), is independently secured for PIE (and/or its early descendants) by 2sg. prs. $*h_1$és-si > $*h_1$ési 'you are' (Skt *ási*, YAv *ahi*).[7] As shown in (6c), PIE *úpo and *upér(-i), which reflect compounds, presuppose a simplex PIE *úb which is the most probable derivational base of pre-Gmc *up-nV̆ > Proto-Gmc *uppV̆ 'upward'.

(6)	simplex	compound	
a	PIE $*h_2$áb (Lat *ab* 'off, from', Lith, Latv *ap-* 'from, away')	~ PIE $*h_2$áp-po > $*h_2$ápo (Skt *ápa* 'away', Gk *apó*, Goth *af* 'off, from')	cf. PIE *pó 'along' (OCS *po*, Latv *pa*, Lith *pa-*, Lat *po-* in *po-situs* 'placed, put')
		PIE $*h_2$ap-pér > $*h_2$apér (Goth *afar* 'after', OHG *afar* 'again', *abar* 'but', ON *afar* 'very')	PIE *pér(-i) 'around' (Skt *pár-i*, Gk *pér-i*, *per-í*, *-per*, Lat *per*, Lith *peř*, OCS *prě-*)
b	PIE *súb (Lat *sub* 'under')	~ PIE *súp-po > *súpo (Gk *hupó* 'under', WToch *spe* 'nearby')	

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[7] In the domain of stops this simplification has to be expected in such case forms of nouns as the instr. pl. PIE $*h_2$ap-b^{h}ís > $*h_2$ab^{h}ís 'with waters' etc. This is superficially contradicted by Skt instr. pl. *adbhís*, dat.-abl. pl. *adbhyás* of *áp-* f. 'water' which presuppose pre-Skt *ap-b^{h}ís, *ap-b^{h}iás. However, such forms may reflect recent regularisations which replaced synchronically irregular counterparts of OPers instr. pl. *abiš*, YAv dat.-abl. pl. *aiβiiō* etc. Cf. the situation in the locative plural of s-stems: PIE *-es-su > *-esu > Proto-IIr *-asu in Skt *ámhasu*, YAv *ạzahu* of Skt *ámhas-* nt. 'distress'. In Sanskrit, the isolated *ámhasu* is attested just once alongside the common and synchronically regular loc. pl. *śrávas-su*, *rájas-su* of *śrávas-* 'renown', *rájas-* 'clouds' etc. A different approach to PIE $*h_2$ápo, *súpo, *úpo and PIE $*h_2$apér, *supér, *upér is taken in D u n k e l (1994, 20; LIPP 1, 155–156; 2, 70–71, 746–747, 749–750, 829–830), cf. critique in M e l c h e r t (2017).

		PIE *sup-pér > *supér (Gk *hupér*, Lat *super* 'over')
c	PIE *úb (indirectly in Hitt *up-zi* 'comes up (of the sun)', cf. K l o e k h o r s t 2008, 920–921)	~ PIE *úp-po > *úpo (Skt *úpa* 'toward', Goth *uf* 'under', ON *of* 'over', OIr *fo* 'toward, over, un-der')
		PIE *up-pér > *upér (Skt *upár-i* 'above, over', Goth *ubar*, OE *ofer* 'over')

Proto-Gmc *utz 'out' given in (5c) descends ultimately from PIE *úd 'up, aloft' reflected in Skt *úd-* 'up, above; aloft, out', OCS *vy-* 'out'. The derivational system, in which Proto-Gmc *utz is embedded, is described in (7). PIE *úd 'up, aloft' is the most probable derivational base of pre-Gmc *ud-nV̆ > Proto-Gmc *uttV̆ 'outward'.

(7)	base		s-derivative
a	PIE *h₁én 'in' (Gk *en*, Lat *in*, Latv *ìe-*)	~	PIE *hén-s (Gk *eis*)
b	PIE *h₂áb 'off' (Lat *ab*, Lith, Latv *ap-*)	~	PIE *h₂áb-s (Gk *áps*, Lat *abs*)
c	PIE *úd 'up, aloft' (Skt *úd*, OCS *vy-*)	~	PIE *úd-s (YAv *us-*, Goth *us*, OHG *ur-*, *ar-*)

No direct reflexes of PIE *úb 'over' and *úd 'up, aloft' are attested in Germanic languages. This is probably because, for phonological reasons, both adverbs would have yielded Proto-Gmc *u which, in turn, would have been virtually indistinguishable from the particle Proto-Gmc *u (Goth *u*) reflecting PIE *u (cf. Skt *u* 'and also'). The loss of pre-Germanic word-final plosives also in monosyllables is demonstrated by Proto-Gmc *hʷa 'what?' (Goth *ƕa*) reflecting PIE *kʷód 'what?' (cf. Skt *kád*, Lat *quod*).

However, reflexes of PIE *úb and *úd must have once existed in pre-Germanic times where they, along with the reflex of PIE *én 'in', gave birth to directional adverbs ending in pre-Gmc *-nV̆. In (8) it is shown how the derivational relations of Pre-Germanic times and the subsequent

phonological development up to the stage of attested Germanic languages have to be reconstructed on the background of the achieved conclusions.

(8) locational/   directional
     directional

		pre-Gmc			Proto-Gmc	OHG
pre-Gmc						
*én 'in'	→	*en-nV̆ 'inward'	>	*ennV̆ >	*innV̆	> īn
*úb 'over'	→	*ub-nV̆ 'upward'	>	*ubbV̆ >	*uppV̆	> ūf
*úd 'up'	→	*ud-nV̆ 'outward'	>	*uddV̆ >	*uttV̆	> ūz

It follows that the Indo-European dialect ancestor to Proto-Germanic must have possessed a suffix *-nV̆ which was used for deriving directional adverbs from other adverbs. It is tempting to etymologically identify this pre-Germanic *-nV̆ with Proto-East-Baltic *-na established above, by reconstructing an already PIE suffix *-no. Note that pre-Germanic *-nV̆ and Proto-East-Baltic *-na are capable of bearing stress and therefore can hardly reflect a clitic. This reconstruction implies that a PIE suffix *-no once existed also in the other branches of Indo-European and, ideally, should have left traces in them. In the remainder of the present section I will try to identify such traces of a PIE directional *-no in a further branch of Indo-European.

2.3. Directional adverbs in Italic

It is possible that the hypothetical PIE directional *-no was also preserved in the Italic branch of Indo-European. The relevant material, given in cf. (9a), is constituted by Latin adverbs formed by adding the element -ne to other adverbs (cf. Persson 1893, 218–223; Walde, Hofmann 1938, 339; 1954, 335; Leumann 1977, 209, 320; see also Untermann 2000, 619, 720–721; de Vaan 2008, 160–161, 483–484, 600–601). As shown in (9b), the development of pre-Latin word-final *-o# into Lat -e# is a regular sound change which is independently confirmed by a morphological position not interacting with the adverbs in question (cf. Sommer, Pfister 1977, 117; Leumann 1977, 92; Weiss 2009, 148). This makes it possible to identify the -ne in such Latin adverbs with the pre-Germanic directional *-nV̆ and the Proto-East-Baltic directional *-na.

The traditional etymological identification of Lat -ne in such adverbs with the clitic -ne 'whether' (cf. again Persson 1893, 217–223; Walde, Hofmann 1938, 405; 1954, 150) cannot be excluded, but is, for functional reasons, less appealing.

(9)

	locational/directional		directional
a	Proto-It *posti 'in the rear, behind' (Lat post, Osc PÚST, Umbr PUS)	→	pre-Lat *posti-no > Lat pōne 'behind, backward'[8]
	Proto-It *super 'over, above' (Lat super, Umbr SUPER)	→	pre-Lat *super-no > Lat superne 'from above, upward'
	Proto-It *dē 'from, off' (Lat dē)	→	pre-Lat *dē-no(-kʷe) > Lat dēnique 'lastly, finally'
	Proto-It *dō 'toward, until' (Lat quan-dō 'when')	→	pre-Lat *dō-no(-ke, -kʷom) > Lat dōnec, dōnicum 'until'
b	them. 2sg.impf.middle		2sg. (imp.) pss.
	PIE *-e-so (Gk -εο, YAv -aŋha)	>	Lat -e-re

If the analysis proposed in the present subsection is accurate, the reconstruction of the hypothetical PIE directional *-no is supported by the evidence of no less than three branches of Indo-Europen, i.e. Germanic, Baltic, and Italic.

3. From directional adverbs to case of nouns, pronouns, and adjectives

3.1. Introduction

What remains to be explained is how the directional marker PIE *-no, which originally was used for deriving adverbs, could be secondarily extended to Lithuanian nouns, pronouns, and adjectives and integrated into their case inflection. To understand this, it is necessary to take a closer look at the morphological properties of this case in Lithuanian.

The illative case forms are traditionally assumed to be based on the inherited accusative (cf. Bezzenberger 1877, 249; Zubatý 1896; Endzelīns 1923, 339; 1971, 166–167; Fraenkel 1929, 1–2; Stang 1966, 229–230; Kazlauskas 1968, 164; Zinkevičius 1980, 255–256; 1982, 29; Seržant 2004a; Petit 2007, 340–341; Kalniņš 2019, 118–120). This assumption is plausible in the case of the illative plural where Lith krū́muosna 'into bushes', píevosna 'into meadows' etc. seem to be clearly derived from the corresponding pre-Leskien's-Law-forms of the accusative plural krū́mus, píevas (cf. East Lith -uosius, -osias in the definite adjective).

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[8] Pre-Lat *posti-no > *postne > Lat pōne probably with the same early syncope which is attested in pre-Lat *po-sinō > *posnō > pōnō 'to put, place' (cf. on the latter Walde, Hofmann 1954, 335; de Vaan 2008, 479; Weiss 2009, 123). On Umbr postne and superne, superficially akin to Lat pōne and superne, cf. now Untermann 2000, 538, 623, 721.

However, the traditional assumption that all forms of the Lithuanian illative originated by adding pre-Lith *-na to the inherited accusative seem to lead to unsurmountable difficulties.

In the following subsections I will first elaborate on these difficulties of the traditional explanation of the illative case as based on the inherited accusative. Then an alternative explanation will be suggested which takes into account the results achieved above in section 2, i.e. the origin of the illative marker in directional adverbs.

3.2. The case form underlying the Lithuanian illative

The traditional theory, which explains the Lithuanian illative case as based on the inherited accusative, faces two severe difficulties. The first of these difficulties is the shape of the illative singular in the inflection of stems in short vowels, such as the a-stems. The second is the unexpected accentual behaviour of the illative singular in stems belonging to accentual paradigms with mobile stress.

The first problem of the traditional theory becomes visible if one more closely examines the illative plural of ā-stems. Lith *píevos-na* etc. contain an oral *o* which is presupposed also for the accusative plural of ā-stem nouns, pronouns and indefinite adjectives by the equation Lith acc. pl. (fem.) *líepas*, *stóras*, *tàs* = Latv acc. pl. (fem.) *liẽpas*, *tãs*. However, in the definite adjective, where the end of the word is protected by a clitic, the feminine form of the accusative plural is, in the standard language and in the conservative dialects, rather Lith *-ąsias*. The *ą* found here is clearly incompatible with the vocalism of the Lithuanian and Latvian forms given above. It follows that one has to reconstruct two different allomorphs of the relevant ending, i.e. Proto-East-Balt *-ā́s* for nouns, pronouns and indefinite adjectives along Proto-East-Baltic *-ā́ns(-i̯ā́s)* in the definite adjectives.

Any attempt to explain this unexpected doubling has to take into account that the latter ending of the ā-stems' accusative plural is a clear match of the corresponding Old Prussian ending, cf. OPr nom. sg. *rancko* ~ acc. pl. *rānkans* 'hand' etc. An accusative plural ending containing *n is also presupposed by the nasalised ending of the Slavonic so-called "soft" (i.e. palatalised) ā-stems, such as OCS nom. sg. *duša*, *zemlja* ~ acc. pl. *dušę*, *zemlję* etc. As recently suggested, probably independently from each other, by O l a n d e r (2015, 248) and P r o n k (2016, 25–26), the easiest way to account for this situation is by reconstructing Proto-Balto-Slav *-ā́ns (directly reflected in OCS *-ę*, OPr *-ans* and Lith *-ą́s-* in the definite adjective) and assuming a secondary loss of the nasal in Proto-East-Baltic *-ā́ns# > *-ā́s#, i.e. in word-final position where no clitic followed.

This plausible solution (accepted, for instance, by K i m 2019, 15–16) presupposes that the illative plural forms of ā-stems, such as Lith *píevos-na* etc., emerged in comparatively recent times, after the sound change *-ā́ns# > *-ā́s# in the Proto-East-Baltic accusative plural of ā-stem nouns and indefinite adjectives.

As for the corresponding illative singular Lith *krū́man*, *miẽstan* etc., it can hardly be explained in a similar fashion, i.e. as reflecting the inherited accusative recently enlarged by pre-Lith *-na. In the a-stems, such an origin presupposes pre-Lithuanian forms ending in *-an-na which, according to the established sound laws, would yield not the attested *-an* of *krū́man*, *miẽstan* etc. but rather forms ending in *-ąn(a). This is demonstrated by Lith *są́-nara* 'joint', *są́-našos* 'silting', *są́-naudos* 'costs' etc. whose first element is evidently the same as in *sán-taka* 'confluence', *sán-kloda* 'arrangement, order' etc.

The illative singular ending in *-ąn(a) might be attested in Lithuanian, cf. *krū́mun*, *rañkun* etc. reported in Z i n k e v i č i u s (1966, 52) and LKA 3, 54, map 48 for local dialects east of Širvintos, Ukmergė, Anykščiai and by A r u m a a (1930, 65) for a village near Dieveniškės. Since in East Aukštaitian *ą* is realised as *ų*, such *-un* can, in theory, represent *-ąn(a) with apocope of the second and a recent shortening of the first vowel.[9] However, the bulk of the East and South Aukštaitian dialects exhibit the illative singular of a-stems ending in *-ana* or *-an* which cannot be explained on the basis of the inherited accusative singular enlarged by *-na.[10]

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[9] In theory, a similar origin can be assumed for such adverbs as (*eĩti*) *aukštȳn* '(to go) up, upward' etc. (cf. most recently F o r s s m a n 2003, 154–156), which would then be reflecting a fossilised accusative-based illative singular of such nouns as *aūkštis* 'height' (*-į-na > -ȳn). However, given the fact that the accusative singular is always stressed on the root, the place of stress in *aukštȳn* etc. would be rather unexpected. A different explanation of the Lithuanian ȳn-adverbs is suggested in the footnote 12 below.

[10] According to S t a n g (1966, 230), Lith ill. sg. *-ana* (> *-an*) can still be assumed to reflect *-an-na because the same simplification of two *n is allegedly also attested in Lith *žinóti*, Latv *zinât* 'to know' whose present tense forms (such as 3prs. Lith *žino*, Latv *zina*) are traditionally assumed to reflect Proto-Balt *žinṓ- < PIE *ǵn̥nóh₃- (i.e. a nasal present of the root *ǵnoh₃- 'to realise', cf. 3sg. aor. Gk *é-gnōn*, OCS *zna*). However, i-stem forms 1pl. *zinim*, 2pl. *zinit* in dialects of Latvian rather suggest an original inflection according to the pattern better preserved by Lith *raudóti* (3prs. *ráusti*), *miegóti* (3prs. *míegti*) ~ Latv *raûdât* (1pl. prs. *raûdim*), *miêgât* (1pl. prs. *miêdzim*). The present stem 3prs. Lith *žino*, Latv *zina* is then a recent creation based on the infinitive. The only West Baltic verb representing the relevant inflectional pattern (i.e. 3prs. Lith *ráusti*, *míegti* ~ 1pl. prs. Latv *raûdim*, *miêdzim*) is 3prs. *waist*, 1pl. prs. *waidimai* 'to know' which reflects a PIE perfect

3.3. The accentuation of the Lithuanian illative singular

The second problem of the traditional account is the accentual behaviour of the illative singular which seems to preclude a direct derivation from the corresponding accusative singular forms. The accusative singular is invariably stressed on the root in all nouns. By contrast, the illative singular forms of nouns belonging to the mobile accentual paradigms AP 3 and 4 are stressed on the desinence. Cf. acc. sg. *lángą* 'window', *laũką* 'field, open space' and *gálvą* 'head', *diẽną* 'day' but ill. sg. *langanà*, *laukanà* (> *langañ*, *laukañ*) and *galvõn*, *dienõn*, all presupposing a stressed pre-Lith *-n'a (i.e. *lángan'a, *gáluán'a etc.).

It is important to note that this peculiar accentuation of the illative singular of accentually mobile a– and ā–stems can hardly be explained by a recent accent shift due to phonological and/or prosodic properties of the ending. Such phonologically and/or prosodically conditioned shift of stress would have necessarily affected also the illative of the immobile a– and ā–stems, generating not only *laukañ*, *dienõn* beside acc. sg. *laũką*, *diẽną* in the mobile AP 4 but also †*miestañ*, †*rankõn* (instead of *miẽstan*, *rañkon*) beside acc. sg. *miẽstą*, *rañką* in the immobile AP 2. Cf. the well-understood recent shift of the word-stress from the non-acute onto the following acute syllables (Saussure's Law), which equally affected mobile and immobile nouns, for instance, in nom. sg. *dienà* (AP 4) and *rankà* (AP 2), instr. sg. *laukù* (AP 4) and *miestù* (AP 2) etc.

According to S e r ž a n t (2004b, 113–117) and K o r t l a n d t (2005), Lith ill. sg. *laukanà*, *galvonà* etc. in AP 3 and 4 can be explained as having analogically acquired the end-stress of the corresponding inessives, i.e. *laukè*, *galvojè* etc. This hypothesis is certainly not impossible in the case of *galvonà* etc. Since in the ā–stems with fixed stress both cases are stressed on the same (first) syllable, i.e. *píevoje ~ píevon(a)* etc., inherited end-stressed iness. sg. *galvojè* etc. would be a valid starting point for generating a secondary end-stressed ill. sg. *galvonà* etc. by a simple analogy. However, it is difficult to see how a similar analogy would have produced ill. sg. *laukanà* (not †*laukāna*) etc. beside the iness. sg. *laukè* etc. More generally, it is difficult to understand why the (supposedly) different place of stress in the inessive singular of AP 3 and 4 would cause a change in the corresponding illative. In the plural a

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(cf. OCS 1sg. prs. *vědě*, ORu 3sg. prs. *věstь*). This makes it probable that the East Baltic present tense forms of Lith *žinóti*, Latv *zinât* also reflect a more ancient perfect. See on all this V i l l a n u e v a S v e n s s o n (2008). It follows that Lith *žinóti*, Latv *zinât* provide no information on the development of more ancient *nn in Lithuanian.

similar difference between the cases is tolerated in Lithuanian, cf. iness. pl. *languosè, galvosè* ~ ill. pl. *langúosna, galvósna* etc.

3.4. The new account: illative singular

The problems discussed in the preceding two subsections make the traditional explanation of the Lithuanian illative case as based entirely on the inherited accusative unattractive.[11] Consequently, a different explanation is needed which, ideally, should account for both the shape of the illative case desinences (in both numbers), and for the peculiar accentuation of the illative case in nouns belonging to the accentual paradigms with mobile stress (i.e. to AP 3 and 4). I think that such an alternative account can be developed by taking as a starting point the assumption that the Lithuanian illative is a recent formation (cf. subsection 3.2), which came into being by a reanalysis of a derivational pattern pertaining to adverbs (cf. subsection 2.1). In the present section I will start with the singular of a– and ā-stems. In the following subsection 3.5 an account of the corresponding illative plural will be presented.

In the case of the a-stems, the end-stressed illative singular *langanà*, *laukanà* (> *langañ, laukañ*) etc. in the AP 3 and 4 can be ultimately explained by analogy with words situated on the border between true adverbs and nominal case forms. Such words are Lith *kanà* 'whither' and *tanà* 'thither' which are documented for the archaic dialect islands of Lazūnai (cf. LazTŽod, 263; Vidugiris 2014, 182–183, 185–186) and Zietela (cf. Stang 1958, 190; Vidugiris 1960, 126; 2004, 222, 228; ZietŠŽ, 263, 683; Rozwadowski 1995, 124).

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[11] To be sure, all these problems of the traditional theory can be overcome by taking recourse to a series of additional assumptions (cf. most recently Villanueva Svensson 2020, 10–11, 23–26). Lith *-osna* (< pre-Lith *-ā́s-na) in the illative plural of ā-stems can be explained by a recent dissimilation in more ancient *-ā́ns-na. Lith *-ana* (> *-an*) in the illative singular of a-stems can be taken as the regular reflex of Proto-Baltic *-an-na. The different development seen in Lith *są́-nara* etc. can be attributed to a chronologically more recent stage in the development of East Baltic or explained by a recent analogy. The end-stress in the illative singular of nouns belonging to AP 3 and 4 can be explained by assuming that pre-Lith *-na was a clitic and postulating the Slavonic rule of stress assignment in the given environment also for East Baltic (cf. Garde 1976, 9; Olander 2009, 89; Jasanoff 2017, 69). The counterevidence (Lith acc. sg. *mãžą-jį*, *mãžą-ją* etc.) can, again, be attributed to a recent analogy. None of these assumptions can be proven wrong or supported by additional evidence. The need for such *ad hoc* solutions constitutes a strong argument against the traditional theory of the Lithuanian illative case.

Lith *kanà* 'whither' is attested since the late 16th c. In particular, it is found in Daukša's *Postill* (1599), where it is once printed <kána> (216), twice <kaná> (both 451), and twice <kanáġ>, <kaną́ġ> (10 and 94) which obviously represent *kanà-gi* (cf. S t a n g 1966, 229; R o s i n a s 2001, 93) directly attested, for instance, in Zietela (cf. V i d u g i r i s 2004, 295; ZietŠŽ, 263). Lith *tanà* 'thither' possesses a counterpart in Latvian and might be, therefore, inherited from Proto-East-Baltic. This Latvian counterpart of Lith *tanà* is found in the compounds Liv, Central Latv *šeî-tan* 'hither', *teî-tan* 'thither' which have been discussed in subsection 2.1 above.

Lith *kanà* 'whither' and *tanà* 'thither' obviously belong to the pronouns *kàs* 'who, what' and *tàs* 'that'. The directional adverbs might be ultimately based on the inherited form of the nominative-accusative singular in the neuter gender, i.e. Proto-Balt *k'a* 'what' and *t'a* 'that'. The former is directly reflected in OPr *ka* 'what' and yields the conjunction Lith *kà* 'when; that' (around Plungė, Pasvalys, Jurbarkas), Latv *ka* 'that, so that; when'. The latter yields the conjunction *tà* 'then' in Žemaitian dialects of Lithuanian (around Telšiai, Plungė, Kelmė, Skuodas) and is probably preserved as the second part of Liv, Central Latv *šeî-t* 'here', *teî-t* 'there' (see subsection 2.1 above) and as the clitic *-t* in Central Latv *kas-t* 'what', *kùr-t* 'where' (see ME 4, 120).

Proto-Baltic *k'a* and *t'a* reflect PIE nom.-acc. sg. nt. *k^wód 'what' (cf. Skt *kád*, Lat *quod*, Goth *hva*) and *tód 'this, that' (cf. Skt *tád*, Gk *tó*, OCS *to*). The use of Proto-Baltic *k'a* and *t'a* as conjunctions, which is documented for both Lithuanian and Latvian, seems to presuppose their frequent predicative use in copulaless clauses, roughly Proto-East-Balt *k'a 'What (is it)?, Which (is there)' and *t'a 'That (is there)'. In such clauses, Proto-East-Balt *k'a and *t'a were functionally close to such adverbs as 'where?, where' and 'there' and could, therefore, give birth to secondary directional adverbs reflected in Lith *kanà* 'whither' and *tanà* 'thither'.

The obvious relation between the pronoun *kàs* 'who, what', *tàs* 'this, that' and the directional adverbs *kanà* 'whither', *tanà* 'thither' probably provided a model for creation of a special case form with a similar function also in nouns. This development might have started with semantically prominent and therefore frequent mobile u-stems such as given in (10a). The pattern established in this way might have been analogically extended via other case forms, as for instance the accusative, to the mobile a-stems (10b). Since the Lithuanian accusative is stressed on the root in all classes of nouns, this development might have affected also those a-stems which belonged to the immobile AP 1 and 2. Cf. such variant forms of the illative singular as *krūmañ*, *kluonañ* etc. (see LKA 3, 54–55; V i d u g i r i s 2004, 159). Finally,

a simple analogy via the inessive would have secondarily harmonised the accentual curve in the immobile a-stems (10c).

(10)

a	nom. sg.		adverb		nom. sg.		ill. sg.			
	kàs	~	*kanà*	⇒	*viršùs*	→	*viršunà*	>	*viršuñ*	'top'
	tàs	~	*tanà*		*dangùs*	→	*dangunà*	>	*danguñ*	'sky'
					vidùs	→	*vidunà*	>	*viduñ*	'core'

b	acc. sg.		ill. sg.		acc. sg.		ill. sg.			
	viřšų	~	*viršunà*		*lángą*	→	*langanà*	>	*langañ*	'window'
	dañgų	~	*dangunà*	⇒	*laũką*	→	*laukanà*	>	*laukañ*	'field'
	vìdų	~	*vidunà*		*dařžą*	→	*daržanà*	>	*daržañ*	'garden'

c	iness. sg.		ill. sg.		iness. sg.		ill. sg.			
	langè	~	*langañ*		*krū́me*	~	~~*krūmañ*~~	→	*krū́man*	'bush'
	laukè	~	*laukañ*	⇒	*púode*	~	~~*puodañ*~~	→	*púodan*	'pot'
	daržè	~	*daržañ*		*klúone*	~	~~*kluonañ*~~	→	*klúonan*	'barn'

A similar scenario can be suggested for the ā-stems. Here, the model for creation of a new case form illative would be the relation between two adverbs, Lith *čià* 'here' and its derivative *čiõn* 'hither'. Following this model, nominative singular forms such as *trobà* (probably in copulaless clauses like *Trobà* '(Here is a) hut') may have given rise to a new illative *trobõn* 'into the hut' etc. Subsequently, the pattern iness. sg. *trobojè* ~ ill. sg. *trobõn* in accentually mobile ā-stems could have served as a model for creation of the illative singular also in the immobile ones, yielding iness. sg. *píevoje*, *rañkoje* ~ ill. sg. *píevon*, *rañkon* etc. Since immobile ā-stems belonging to the AP 2, such as *rankà*, *pirkià* etc., had a nominative stressed on the ending, they also could follow the model pattern *čià* 'here' ~ *čiõn* 'hither' more directly. This led to the variation ill. sg. *piřkion* ~ *pirkiõn* etc. documented in LKA 3, 54–55. This variation is probably the source of a similar vacillation in the immobile ė-stems such as *ùpėn* ~ *upẽn*, *žḗmėn* ~ *žemẽn* etc. (cf. again LKA 3, 54–55; Vidugiris 2004, 148).[12]

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[12] The same process might be ultimately responsible for the creation of such illative-like adverbs as (*eĩti*) *gilỹn* '(to go) downward', *gražỹn* '(to become) beautiful' etc. As has been repeatedly observed, such adverbs are often found beside u-stem adjectives such as *gilùs* 'deep', *gražùs* 'beautiful' etc. (cf. Forssman 2003, 154). This fact seems to suggest that such deadjectival *ỹn*-adverbs emerged, not unlike the illative singular *trobõn* etc.,

In pronouns and adjectives, the new case form probably emerged in two different ways. The first way seems to have been by imitation of nouns belonging to the relevant inflection class. The second way might have been the reanalysis of such constellations as *galañ tanà* 'to (that) end, thither', *tanà šónan* 'thither, to (that) part' (Zietela, cf. respectively ZietŠT 1, 189$_{13}$, 202$_3$) as containing a case form of *tàs* in attributive usage.[13] This double strategy of the illative singular formation in attributive pronouns is probably reflected in the peculiar variation found in Zietela, cf. *tañ lapañ* (ZietŠT 1, 75$_4$), *kitañ daržañ* (ZietŠT 1, 222$_8$) vs. *tanà dvarañ* (Otrębski 1995, 53$_1$, 56$_2$), *tanà kraštañ*, *šìtana galañ* (Vidugiris 2004, 228).

3.5. The new account: illative plural

As already stated in section 1 and subsection 3.1 above, the bulk of Lithuanian dialects preserving the illative case reflect an illative plural ending in *–na* which seems to be attached to the inherited pre-Leskien's-Law accusative plural of the relevant nouns, i.e. Lith *krū́muosna* 'into bushes', *píevosna* 'into meadows' (based respectively on pre-Lith acc. pl. *kr'ūmṍs, *p'évās) etc. The same picture is found in Lithuanian sources documenting the language use in the 16th and 17th c. This allegedly transparent illative plural of the type Lith *krū́muosna*, *píevosna* etc. played a pivotal role in the traditional historical explanation of the Lithuanian illative case.

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from the feminine form of the nominative singular in such copulaless clauses as *Gilì* (*ùpė*) 'A deep (river)'. I.e. *čià* 'here' ~ *čiõn* 'hither' might have generated not only *trobà* 'hut' ~ (*eĩti*) *trobõn* 'into the hut' etc. but also *gilì* 'deep' ~ (*eĩti*) *gilỹn* 'downward', etc.

[13] A similar development might be responsible for masc., fem. loc. sg. *tanĩ* and *šanĩ* or *šinĩ* of *tas* 'that', *šis* 'this' in several Central Latvian dialects (Sesava, Apšupe, Līvbērze, cf. Endzelīns 1923, 389; Kalniņš 2019, 144–145 with references). The first of these forms is attested as <Tannî>, <tanni> already in Old Latvian. Latv *tanĩ*, *šanĩ* (cf. on intonation Young 2000, 199; Seržant 2003, 95) seem to be the counterparts of Lith *tenaĩ* 'there, thither', *šenaĩ* 'here, hither' which are ultimately based on the adverbs *teñ* 'there', *šeñ* 'here'. The pattern Latv nom. sg. masc. *tas*, fem. *tã* ~ loc. sg. *tanĩ* seems to have been locally copied into the inflection of nom. sg. masc. *šis*, fem. *šĩ*, thus yielding loc. sg. masc., fem. *šinĩ* (which then replaced *šanĩ*). The strange variation in the vocalism (i.e. Lith *tenaĩ*, *šenaĩ* ~ Latv *tanĩ*, *šanĩ*) is not unparalleled, cf. Lith *élnis* ~ Latv *aȃlnis* 'stag' etc. The a–variant is also attested in Lithuanian, cf. *tanaĩ* (Gruzdžiai near Šiauliai, Šakyna). For the origin of Lith *teñ* and *šeñ*, see subsection 4.2 below. Finally, masc., fem. loc. sg. *tanã* in Central Latvian of Bēne (see again Kalniņš 2019, 144) remains unclear. Latv *tanĩ* ~ *tanã* reminds of *tamĩ* ~ *tamã* in the same case form of other Central and High Latvian dialects (Valmiera, Mālpils, Sērpils etc.), cf. again Endzelīns 1923, 388–389.

The main difficulty for any historical explanation of the Lithuanian illative plural is the place of stress in this case form, as far as nouns, pronouns and adjectives with mobile accentuation (i.e. belonging to AP 3 and 4) are taken into account. As already stated in section 1 above, in numerous dialects preserving the illative case its plural ending appears as apocopated *-úosn*, *-ósn* or *-uõs*, *-õs* etc. (with a recent loss of the nasal). Such apocopated forms of the illative plural do not *per se* provide information concerning the place of stress. At least in theory, they can reflect originally end-stressed forms with a secondary retraction of stress after the apocope as well as originally stem-stressed forms.

The latter possibility seems supported by those dialects which preserve the *-a* in the illative plural. According to LKA (3, 76), numerous local dialects (East Aukštaitian around Kupiškis, Zarasai, Utena, Šalčininkai and West Aukštaitian around Jonava, Prienai) exhibit *laukúosna*, *galvósna* etc. By contrast, the existence of end-stressed illative plural forms such as *namuosnà*, *rankosnà* (mentioned in K u r s c h a t's grammar of 1876, 403) has been contested by dialectologists (cf. B ū g a 1959, 183; Z i n k e v i č i u s 1966, 214; S e n n 1966, 95).

A similar situation seems to be reflected in several phonologically less conservative East Aukštaitian dialects. In the East Aukštaitian dialect island of Lazūnai, one finds the contrast iness. pl. *laukuosà*, *galvosà* ~ ill. pl. *laukuõs*, *galvõs* etc. (cf. V i d u g i r i s 2014, 117–132, 182–185). Here the ending of the illative plural lost its *-a* (and then also the nasal) by apocope which, however, has not affected the inessive plural. It seems logical to attribute this difference in the treatment of word-final *-a* to a difference in stress. If one assumes that the Lazūnai ill. pl. *laukuõs*, *galvõs* etc. developed out of stem-stressed forms *laukúosna*, *galvósna* etc., the contrast between the inessive and the illative plural receives a natural explanation. The only additional assumption one has to make is a recent metatony in the syllables turned word-final by this apocope of unstressed *-a*, i.e. *laukúosna*, *galvósna* > *laukuõs*, *galvõs*. Given the fact that in the dialect of Lazūnai, like in the whole post-Leskien's-Law Aukštaitian, no acute long vowels or diphthong were permitted in word-final position prior to this and similar late apocopes, such a metatony is perhaps unsurprising.

The same explanation can be applied to those East Aukštaitian dialects (north of the line Raguva, Ukmergė, Molėtai, Salakas) which exhibit the contrast iness. pl. *laukúos*, *galvós* ~ ill. pl. *laukuõs*, *galvõs* etc. (cf. Z i n k e v i č i u s 1982, 30). Such dialects seem to represent the next step in the development of a system close to that which is directly attested in Lazūnai. By this next step the apocope finally deleted also the stressed *-à* of the inessive plural,

but only after the hypothetical metatony in new final syllables had ceased to operate. The original difference between the stressed -*à* of the inessive and the unstressed -*a* of the illative plural left, therefore, a trace in form of the intonational contrast reflecting the staggered chronology of the apocope.

It follows that a considerable number of different and geographically distant local Aukštaitian dialects clearly point to a stem stress in the illative plural of accentually mobile nominals (i.e. for *laukúosna*, *galvósna* etc.). However, the situation becomes more complex when the archaic West Aukštaitian dialect of Zietela is taken into account (cf. S t a n g 1958, 183–186, 189–191; V i d u g i r i s 1960, 119–122, 129; 1969, 170–178; 2004, 219–224, 231; ZietŠŽ, 248; Z i n k e v i č i u s 1966, 213–214; 1982, 3). As shown in (11), in this dialect island primarily those illative plural forms are stressed on the stem which contain no less than three syllables, i.e. *laukúosna*, *galvósna* etc. By contrast, disyllabic illative plural forms of pronouns with a monosyllabic stem are stressed on the ending like the corresponding inessive plural, i.e. *juosnà*, *josnà* etc.[14]

(11)	disyllabic pronouns			trisyllabic pronouns	cf.	nouns
iness. pl.	m.	*juosà*	~	m.	*katruosà*	*daiktuosà*
		tuosà			*tokiuosà*	*galvosà*
	f.	*josà*		f.	*katrosà*	*katė́sà*
		tosà			*visosà*	*dantysà*

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[14] The place of stress on the penultimate is confirmed for Zietela by O t r ę b s k i (1995) who, however, is less secure concerning the intonation (cf. *namúosna* 51_{18}, *šiaudúosna* 3_{15} vs. *namuõsna* 52_{17}, *svečiuõsna* 40_{14} etc.). Pace B o l o t o v, O s l o n (2019, 86, fn. 59), ill. pl. *júosna*, *túosna*, though attested in Zietela too, do not invalidate the end-stressed forms and their distribution pattern documented in S t a n g (1958) and V i d u g i r i s (1960; 1969). Such variant forms as *júosna* (V i d u g i r i s 1960, 119; 2004, 231; ZietŠŽ, 248), *túosna* (ZietŠT 1, 182_7; V i d u g i r i s 2004, 213) are probably due to a secondary influence of longer words upon the shorter ones in such constellations as *túosna namúosna* etc. (in O t r ę b s k i 1995, 41_{19}, 52_9). Cf. a similar oscillation between *tuosnà rugiúosna* and *tuosnà rugiuosnà* (V i d u g i r i s 1960, 129; 1969, 171; 2004, 231), *dantýsna* and *dantysnà*, *rañkosna* and *rankosnà* etc. (V i d u g i r i s 1969, 171, 175; 2004, 159), *metuõsna* and *metuosnà* (respectively in O t r ę b s k i 1995, 57_{23}, 60_{13}) where the secondary homogenisation of stress runs in the opposite direction. A similar variation seems attested as early as in Daukša's *Postill* (1599), cf. B o l o t o v, O s l o n (2019, 86, fn. 60) on <ſawůſná>, <auſiſná> vs. <krutîſna>.

ill. pl.	m.	*juosnà*	~	m.	*katrúosna*	*daiktúosna*
		tuosnà			*tokiúosna*	*galvósna*
	f.	*josnà*		f.	*katrósna*	*katésna*
		tosnà			*kokiósna*	*dantýsna*

The situation found in Zietela can be, in principle, explained in two different ways. First, one may assume a secondary shift of stress onto the previously unstressed final -*a* in the disyllabic illative plural, i.e. *júosna, *jósna > *juosnà, josnà* etc. Second, one may assume a secondary retraction of stress in the illative plural with three and more syllables, i.e. *katruosnà, *katrosnà > *katrúosna, katrósna* etc. Since this retraction would not have affected the corresponding inessive plural (*katruosà, katrosà* etc.), its precise conditioning should include the prosodic difference between the two case forms. It means the retraction would have only operated on word forms having a closed penultimate (with a long vowel or diphthong).

Both hypotheses are equally plausible but also equally in conflict with facts securely established for different parts of Zietela grammar. A secondary shift of stress in *júosna, *jósna > *juosnà, josnà* etc. would have equally affected (a) the nominative singular of such ā-stem nouns as *kója* 'leg', *dúona* 'bread' etc. (b) the 3prs. of such verbs as *móka* 'can', *šóka* 'jumps' etc. Neither shift is attested. A recent retraction of stress in *katruosnà, *katrosnà (> *katrúosna, katrósna*) makes one expect a similar retraction in the nominative singular of such ā–stem nouns as *jaunystà* 'young age' etc. This retraction is not attested either (cf. V i d u g i r i s 1969, 154; 2004, 168).

To be sure, in both cases the hypothetical innovative forms showing the shift and/or retraction of stress might have been, in theory, only secondarily replaced by more recent analogical forms created on the model of nouns and verbs preserving the original accentuation (i.e. 1sg. prs. *móku* ~ 3prs. *mokà → móka* on the model of 1sg. prs. *dìrbu* ~ 3prs. *dìrba* etc.). However, the complete absence of nom. sg. *kojà, *duonà etc. and 3prs. *mokà, šokà etc. in the existing text records from Zietela still speaks against a secondary shift of stress in *juosnà, josnà* etc.

An additional argument against a secondary retraction of stress in *katrúosna, katrósna* etc. follows from the intonation of the stressed penultimate in such forms. It is clear that a retraction once assumed for Zietela must be also made responsible for *laukúosna, galvósna* etc. in all the other Aukštaitian dialects mentioned above which either directly preserve or presuppose such stem–stressed forms. This retraction would then be old enough to have affected at least a large part of the West and East Aukštaitian dialects. Similar

developments are securely attested for parts of Aukštaitian at least since the early 18th c. Cf. R o z w a d o w s k i (1897, 249) on the retraction of stress on a heavy penultimate in the anonymous Lithuanian grammar from Vilnius (see 12). However, a retraction of this kind should generate prosodic prominence on the second mora of the heavy penultimate, and thus circumflex intonation (cf. S e n n 1966, 96), and not the acute (unambiguously reported for Zietela by S t a n g 1958; V i d u g i r i s 1960; 1969; 2004; in LKA 3, 76 for other Aukštaitian dialects).[15]

(12)   Lithuanian   *Universitas* (1737)
  kuriuosè ~ <kuriuôse> *kuriuõse*
  geruosè ~ <giaruôse> *geruõse*
  mažuosè ~ <mażuôse> *mažuõse*
  abejosè ~ <abejôse> *abejõse*
  dvejosè ~ <dwejôse> *dvejõse*
  mažosè ~ <maźôse> *mažõse*

It follows that neither a recent progressive shift of stress in the dissyllabic illative plural found in Zietela nor a (less recent) stress retraction in the longer illative plural forms constitute plausible assumptions. What remains is to assume that the distribution of stress between disyllabic (*juosnà*, *josnà* etc.) and trisyllabic (*katrúosna*, *katrósna* etc.) forms of the illative plural preserved in the dialect island of Zietela is simply inherited. It is clear that all other patterns of the illative plural formation attested in Lithuanian dialects and sources (or even postulated for them, such as in K u r s c h a t 1876, 403) are easily derivable from a Zietela-type system either by sound change or morphological analogy (a generalisation of one pattern) or a combination of both.

But how to account for this then inherited system of illative plural formation in historical terms? It turns out that the different place of stress in the disyllabic forms *juosnà*, *josnà* etc. and their trisyllabic counterparts

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[15] The vacillation between *septynì*, *aštuonì*, *devynì* and *septýni*, *aštúoni*, *devýni* in the nominative case of masculine numerals (cf. for Lazūnai LazTŽod, 25, 232; V i d u g i r i s 2014, 171; for Zietela ZietŠŽ, 64, 145, 585; ZietŠT 1, 88$_2$, 93$_1$, 103$_1$, 207$_9$, 211$_{12}$ etc.) is probably not due to a shift of stress but rather to a morphological development. The more recent penultimate-stressed forms of the nominative follow the inherited penultimate-stressed accusative *septýnis*, *aštúonis*, *devýnis*. The obvious model for this secondary harmonisation of stress was provided by masc. nom. *penkì*, *šešì* ~ acc. *penkìs*, *šešìs* where both case forms are stressed the same.

katrúosna, *katrósna* etc. is exactly what one should expect if the illative is assumed to reflect a quasi-adverbial formation. In the previous subsection this hypothesis has already been shown to yield an explanation for the strange accentuation of the illative singular. Applied to the illative plural the hypothesis yields the following results.

From a functional perspective, the derivational base of the –na-adverb underlying the illative plural can either be the accusative plural, as traditionally assumed, or the inherited locative plural, as recently assumed by B o l o t o v, O s l o n (2019, 84–87). Since the East Baltic accusative reflects a case form originally capable of encoding direction (cf. Lith *eiti tarnybą*, *mokslą* etc., cf. S e n n 1966, 419), the former scenario would resemble the pattern Lith *namõ ~ namõ-n* which both mean 'homeward, into one's home'. The inherited locative plural in -*su*, attested in Lithuanian since Mažvydas' *Catechism* of 1547, could be originally used for both location or direction (cf. Skt *ap-sú* 'in the waters' and 'into the waters' etc.). Accordingly, if the inherited locative plural was the case form underlying the adverbial proto-illative, one can equally think of both patterns Lith *namõ ~ namõ-n* or *čià* 'here' ~ *čiõn* 'hither'.

Formally, adding pre-Lith *-na to the inherited locative plural should yield a proto-illative adverbial form ending in something like *-suna. Though one cannot exclude that such forms of the illative plural are actually reflected in dialects (cf. the following subsection 3.6 on -*uosun*, -*osun* etc.), there seems to be no way leading from this *-suna to the attested "standard" type ending -*sna*.[16]

By contrast, adding pre-Lith *-na to the inherited accusative plural would immediately create adverbial forms very similar to what is actually attested in Zietela and has to be assumed for the illative plural in other Aukštaitian dialects. This is shown for the monosyllabic pronouns in (13a) and for longer

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[16] A syncope of unstressed *u in the middle of polysyllabic words is actually attested in Lithuanian dialects, cf. Z i n k e v i č i u s (1966, 131) on masc. nom. *keturì* 'four' but fem. nom. *kẽturios > kẽtrios*, acc. *kẽturias ~ kẽtrias* (in numerous dialects ranging from Zietela to Biržai). Since this syncope in case forms of 'four' is also found in Latvian (fem. nom., acc. *četras*, with unexpected *č* for *c*, see E n d z e l ī n s 1923, 361), it may even be as old as Proto-East-Baltic (Lith fem. nom. *kẽturios* etc. in the standard language and Latv masc. nom. *četri* etc. would then be analogical). However, the age and precise conditioning of this sound change remain unclear. It obviously did not affect the oblique cases of the active preterite tense participle such as fem. acc. pl. Lith *pir̃kusias*, Latv *pìrkušas* 'having bought' etc. Accordingly, whether a similar syncope of *u can be assumed or expected also in the illative plural of nouns, remains unclear.

pronouns in (13b) where the regular shift of stress according to Saussure's Law is relevant. The different placement of stress in derivation of such case form based adverbials in pre-Lithuanian times finds a clear parallel in a different part of grammar, which is shown in (13c). Here the denominal adverbial is end-stressed when based on a monosyllabic (and therefore necessarily end-stressed) case form but preserves the place of stress of a polysyllabic derivational base, becoming then stressed on the first syllable (cf. Senn 1966, 165, 191–192). Note that Lith -*ai* cannot reflect a clitic, because a clitic would not attract stress in *jis-aī*. The same principle of stress assignment can be also responsible for the difference between *juosnà*, *josnà* and *katrúosna*, *katrósna* in the illative plural.

(13)

a   pre-Lithuanian   Zietela   pre-Lithuanian   Zietela

     *k'a ~ **ka-n'a* > *kanà* = **j'ós* ~ **jós-n'a* > *juosnà*

     *t'a ~ **ta-n'a* > *tanà*   **j'ás* ~ **jás-n'a* > *josnà*

                                    pre-Lithuanian   Zietela

b   **k'atrós* ~ **k'atrós-na* > *katrúosna*

                                *k'atrás ~ **k'atrás-na* > *katrósna*

c   Lith nom. sg. masc.

      basic   emphatic

      jìs ~ *jis-aī*   'he'

      tàs ~ *tas-aī*   'this, that'

      šáltas ~ *šáltas-ai*   'cold'

      gẽras ~ *gẽras-ai*   'good'

In the domain of nouns and adjectives, the derivation process sketched in (13a and b) straightforwardly generates the illative plural of AP 4 (mobile stress and non-acute root) in a manner identical to what is shown for polysyllabic pronouns in (13b). Equally straightforward is the derivation of the illative plural in nouns and adjectives belonging to AP 1 (immobile stress and acute root), cf. (14a). In case of AP 2 (immobile stress and non-acute root), the expected illative plural forms given in (14b) are attested in Zietela along root-stressed *pir̃štuosna*, *rañkosna* etc. (Vidugiris 2004, 142, 146, 148). The latter, more system-conforming variant forms seem to reflect a recent sporadic analogy operating via the root-stressed inessive plural and following the model of AP 1 nouns (innes. pl. *krū́muosa* ~ ill. pl. *krū́muosna*

etc.). The only serious deviation from the theoretical expectations is AP 3 (mobile stress and acute root) where the expected root-stressed forms of the illative plural are not actually attested in Zietela (but only *darbúosna*, *galvósna*, cf. Vidugiris 2004, 140–141, 146), cf. (14c). This is probably due to the fact that here, like in many other Aukštaitian dialects, AP 3 is strongly influenced by AP 4, cf. the new AP 4-style acc. pl. *darbùs*, *galvàs* beside the inherited *dárbus*, *gálvas* etc. (Vidugiris 2004, 140, 146). Given the fact that all other case forms in the plural are always stressed the same in AP 4 and AP 3, this influence of the former upon the latter seems unsurprising.

(14)	pre-Lithuanian				Zietela expected	not expected
a	**kr'ū́mṓs*	~	**kr'ū́mṓs-na*	>	*krū́muosna*	--
	*p'ḗu̯ás	~	**p'ḗu̯ás-na*	>	*píevosna*	--
b	**p'iřštṓs*	~	**p'iřštṓs-na*	>	*pirštúosna*	*piřštuosna*
	*r'añkás	~	**r'añkás-na*	>	*rankósna*	*rañkosna*
c	**d'árbṓs*	~	**d'árbṓs-na*	>	--	*darbúosna*
	*g'álu̯ás	~	**g'álu̯ás-na*	>	--	*galvósna*

As it seems, the assumption that the Lithuanian illative reflects an adverbial formation in pre-Lith *-na provides a straightforward explanation for the shape and prosody of this case form not only in the singular but also in the plural. What remains to be discussed are those types of the illative plural formation which do not end in -sna.

3.6. The "non-standard" illative plural

Lith *krū́muosna*, *píevosna* etc. (and their apocopated descendants ending in -uosn, -osn and -uos, -os) are not the only pattern of the illative plural formation attested in Lithuanian. Beside this pattern, two further ways of forming the illative plural are found. The first of these alternative patterns is attested in Lithuanian texts dating from as early as the 17th century. The other seems to be first attested in more recent times, since the middle of the 19th c. It is clear that before the Lithuanian illative plural can be considered explained, it is necessary to also investigate these lesser known alternative formations and to clarify their relation, if any, to the "standard" type ending in -uosna, -osna etc.

The younger "non-standard" pattern of the illative plural formation

comprises a whole range of different possibilities which are widespread in the Aukštaitian dialects (cf. Z i n k e v i č i u s 1966, 212–214; 1982, 26–27; M o r k ū n a s 1969, 109–110; LKA 3, 76, map 48). These formations and their geographic distribution are given in (15).

(15)	illative plural of a- and ā-stems	geographic distribution
a	*krū̃muosnan*, *píevosnan* etc.[17]	West Aukšt (around Kaišiadorys and Jonava), South Aukšt (around Trakai), East Aukšt (around Širvintos, Ignalina, Zarasai, and Dieveniškės)
b	*krū̃muosan*, *píevosan* etc.	East Aukšt (between Širvintos and Vilnius, around Švenčionys and Ignalina, in the dialect islands of Gervėčiai, Kamojys and Apsas)
c	*krū̃muosen*, *píevosen* etc.	West Aukšt (south of Jonava), East Aukšt (near Širvintos, north of Vilnius, around Švenčionys, in the dialect island of Gervėčiai)
d	*krū̃muosin*, *píevosin* etc.	West Aukšt (between Jonava and Širvintos), East Aukšt (between Panevėžys and Ukmergė, in Vosiūnai near Ignalina)
e	*krū̃muosun*, *píevosun* etc.	East Aukšt (in Mielagėnai, Tverečius, around Švenčionys, in the dialect islands of Lazūnai and Gervėčiai)

It is noteworthy that the different illative plural formations given in (15) most often coexist with the "standard" type in *-uosn(a)*, *-osn(a)* etc. and often also coexist with each other. For instance, in the East Aukštaitian dialect island of Gervėčiai the illative plural ending in *-uosna*, *-osna* etc. is attested side by side with *-uosan*, *-osan* etc., *-uosen*, *-osen* etc., and *-uosun*, *-osun* etc. The co-occurrence of at least two different illative plural formations is, however, not the norm. The bulk of Aukštaitian dialects only attest the "standard" type in *-uosna*, *-osna* etc. According to LKA 3, map 48, an East Aukštaitian micro-areal around Tverečius has only *-uosun*, *-osun* etc. while another micro-areal around Ramygala (south of Panevėžys) only displays *-uosin*, *-osin* etc.

From the five different recent "non-standard" illative plural formations only one can be straightforwardly explained on the basis of the "standard" type in *-uosn(a)*, *-osn(a)* etc. It is probably not a coincidence that the illative

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[17] In two local dialects (in Gromališkis near Švenčionėliai and in Rimšė) a recent dissimilation of *-uosnan*, *-osnan* etc. into *-uostan*, *-ostan* etc. is attested (cf. A r u m a a 1933, 80; Z i n k e v i č i u s 1966, 192).

plural in *-uosnan*, *-osnan* etc. given in (15a) is nearly always accompanied by the "standard" illative plural in *-uosn(a)*, *-osn(a)* etc. It is tempting to assume that *krū́muosna-n*, *píevosna-n* etc. are actually variants of the shorter "standard" forms *krū́muosna*, *píevosna* etc. The variation can have emerged by a recent extension of the pattern *namõ* 'homeward' ~ *namõ-n* 'homeward' (side by side for instance in Lazūnai, cf. LatŽod, 172) from this noun-based adverb to the illative case of nouns. Given the fact that nouns in the illative case are syntactically adverbials, functionally very close to such directional adverbs as 'homeward', such a secondary extension seems unremarkable.[18]

As for the other "non-standard" illative plural formations given in (15), two facts are remarkable. First, Lithuanian dialects display a clear correlation between the vocalism of the illative plural ending and the shape of the inessive plural (cf. K a z l a u s k a s 1968, 164; Z i n k e v i č i u s 1966, 238–249; 1980, 197, 257; 1982, 26–27, 36). This is shown in (16). The mutual dependency of the two case forms emerges clearly from the geographic distribution of their variants (cf. LKA 3, 76, map 48 on illative plural and 72–76, maps 67–71 on inessive plural). This is confirmed by such observations as, for instance, made by A r u m a a (1930, 55), according to whom in East Aukštaitian surrounding Gervėčiai speakers either used iness. pl. *-uosa*, *-osa* and ill. pl. *-uosan*, *-osan* or iness. pl. *-uosu*, *-osu* and ill. pl. *-uosun*, *-osun*.

(16) iness. pl. ill. pl.

-uosa, *-osa*	~	*-uosan*, *-osan*
-uose, *-ose*	~	*-uosen*, *-osen*
-uosi, *-osi*	~	*-uosin*, *-osin*
-uosu, *-osu*	~	*-uosun*, *-osun*

Second, it is well known that the variation between the inessive plural ending in *-sa*, *-se* (in East Aukštaitian locally *-si*), and *-su* is attested from the very beginning of Lithuanian text records (cf. H e r m a n n 1925; S t a n g 1966, 186–187; Z i n k e v i č i u s 1980, 196–197, 212; 1982). Lith *-su* is the only ending of the inessive plural in the *Prayers from Vilnius* (roughly between 1520 and 1530)[19] as well as in Mažvydas' and Vilentas' *Catechisms* (respectively 1547 and 1579). In the *Prussian Mandate* (1578) the more frequent *-sa* and

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[18] A similar explanation was suggested as early as by A r u m a a (1933, 79) for whom, however, morphological analogy was not replication of encoding patterns of contrast but rather recombination of morphemes. Accordingly, Arumaa assumed the additional *-n* of *-sna-n* to be taken from the illative singular of nouns (i.e. from *krū́man*, *píevon* etc.).

[19] Dating according to S u b a č i u s et al. (2010, 35–36).

the less frequent *-su* occur side by side (cf. H o c k, F e u l n e r 2018, 258). The ending *-se* is the only attested ending of the inessive plural in Daukša's *Catechism* (1595), Sirvydas' *Punktai sakymų* (1629), Jaknavičius' *Polish and Lithuanian Gospels* (1647) etc. This means that at least three different endings of the inessive plural, i.e. *-su*, *-sa* and *-se*, must have coexisted in Lithuanian dialects at least since the 16th c.

By contrast, none of the corresponding "non-standard" illative plural formations of Lithuanian dialects seems attested earlier than the middle of the 19th c. The earliest attestation known to me is the form *pelanuõsin* 'into ashes' found in Baranowski's collection of dialectal Lithuanian (cf. S p e c h t 1920, 112; 1922, 178–179). The form is attested for Siesikai near Ukmergė where the inessive plural ends correspondingly in *-si* (cf. LKA 3, 72–73, maps 67, 68). From the second half of the 19th c. date *uogḗlésan* 'in (order to collect) berries', *serbulḗsan* 'into currants' attested for Gervėčiai and *rankósun* from Tverečius, both found in LitXrest of 1904 (respectively 398[36], 199[1], 377[4]). In Gervėčiai the inessive plural ends in *-su* or *-sa*, in Tverečius in *-su* (cf. A r u m a a 1930, 55; LKA 3, 72–73, maps 67, 68).

These facts seem to suggest that the "non-standard" illative plural formations in *-uosan*, *-osan* etc. (see 15b–e) are recent creations based on the inessive plural. The model for the creation of such innovative "non-standard" forms of the illative plural probably emerged due to the recent apocope which created by-forms of the inessive plural ending in *-uos*, *-os* etc. (see again Z i n k e v i č i u s 1966, 238; 1980, 197–198; K a z l a u s k a s 1968, 161; LKA 3, 72–76). In local dialects such apocopated forms of the inessive plural often coexist with the more ancient forms ending in a vowel (cf. *-uos*, *-os* alongside *-uose*, *-ose* between Ukmergė, Širvintos and Molėtai, *-uos* alongside *-uosu*, *-osu* between Ignalina and Švenčionys etc.). In such dialects, the pattern "short" iness. pl. *-uos* ~ "standard" ill. pl. *-uosn* (cf. 17a) provided a model for the creation of such recent "non-standard" illative plural variant forms on the base of the "long" inessive plural (17b). Subsequently, the "standard" ill. pl. *-uosn*, *-osn* etc. might have been lost in many dialects due to the regular loss of the nasal which caused a merger with the "short" variant form of the inessive plural. Cf. the situation in the East Aukštaitian dialect island of Lazūnai, where the regular loss of the nasal yielded ill. pl. *krū́muos*, *nasruõs* etc. (cf. A r u m a a 1930, 65; V i d u g i r i s 2014, 93, 111–114).

(17)	inessive pl.		illative pl.		
a	*-uos, -os*	~	*-uosn, -osn*	>	*-uos, -os*
b	*-uosa, -osa*	~		→	*-uosan, -osan*
	-uose, -ose	~		→	*-uosen, -osen*
	-uosi, -osi	~		→	*-uosin, -osin*
	-uosu, -osu	~		→	*-uosun, -osun*

The proposed hypothesis successfully accounts for both remarkable features of the Lithuanian "non-standard" illative plural formations in *-uosan*, *-osan* etc. The striking correlation between the vocalism of such "non-standard" illative plural formations and the vocalism of the "long" inessive plural in the given dialect follows from the fact that the former is based on the latter. The young age of such "non-standard" illative plural formations follows from the fact that the model pattern for their analogical derivation in dialects emerged due to a recent phonological process which created the "short" by-forms of the inessive plural somewhere between the end of the 17th c. and the middle of the 19th c.[20] Finally, the assumed direction of analogy seems to be confirmed by the place of stress in the illative plural of nouns with mobile accentuation. In such nouns, the "non-standard" illative plural seems to be accentually following the corresponding form of the inessive, cf. iness. pl.

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[20] Other attempts at explaining the "non-standard" illative plural in *-san* etc. seem to violate well-established principles of language change. K a z l a u s k a s' (1968, 164) explanation of such illative plural forms as emerging from the corresponding inessive plural secondarily enlarged with *-n* taken from the illative singular (such as *meškañ*, *rankoñ* etc.) is difficult from the morphological point of view. The *-n* of the illative singular is not a clitic freely attachable to case forms of nouns but a bound morpheme. An analogical extension of the patterns iness. *miškè* ~ ill. *miškañ* and/or iness. *galvojè*, *galvõj* ~ ill. *galvõn* from the singular onto the plural cannot be assumed here because it would not facilitate the creation of iness. *meškuosù*, *galvosù* ~ ill. *meškuosuñ*, *galvosuñ* etc. Z i n k e v i č i u s' (1982, 36) starting point is the observation that in several local dialects the "standard" illative plural ending in *-sn* may be pronounced with a syllabic nasal (cf. A r u m a a 1930, 65 for Dieveniškės; Z i n k e v i č i u s 1966, 212–214 for the vicinity of Panevėžys). It is not impossible that such a vocalic nasal secondarily developed into something like [ən]. However, Zinkevičius' assumption that the new vowel [ə] in such an ending ill. pl. [-sən] received a secondary coloration into *a, e/i* or *u* following the vowel timbre in the ending of the inessive plural, seems to violate the principle according to which sound change operates on segments and cannot be directly conditioned by morphological relations. Neither theory accounts for the late appearance of the "non-standard" illative plural in *-san* etc. in Lithuanian.

keliuosù, *galvosù* ~ ill. pl. *keliuosuñ*, *galvosuñ* in Lazūnai (V i d u g i r i s 2014, 118, 121).

The more ancient of both "non-standard" illative plural formations of Lithunian displays two different forms, one ending in *-uosne*, *-osne* etc., the other in *-uosnu*, *-osnu* etc.

The first of these formations is securely attested as early as in Chylinski's *New Testament* (1658) where <namoſna>, <auſiſna>, <ßyrdiſna> etc. are accompanied by <namoſne>, <auſisne>, <ßyrdisne> etc. The illative plural in *-uosne*, *-osne* etc. persisted in Lithuanian dialects through the 19th c. Such forms as *darbuosne*, *dienosne* etc. are reported from a book printed in Vilnius in 1855 (cf. G e i t l e r 1875, 57). Wolter's LitXrest, which appeared in 1904, attests 208_{30} *pragarosne* 'into hell' for Linkmenys, 246_{23} *šituosne namuosne* and 247_{39} *urvosne kurmių* 'into mole hollows' from around Vilnius (cf. F r a e n k e l 1929, 4). The most recent trace of this illative plural formation known to me are *svotúosne* 'as match-makers', *ratósne* 'into companies' from a South Aukštaitian dialect south of Vilnius which had been investigated in 1895 by B r o c h (1960).

The second of the two more ancient "non-standard" illative plural formations, the illative plural in *-uosnu*, *-osnu* etc., is also attested quite early. Interestingly, the oldest Lithuanian text attesting the illative case, the *Prayers from Vilnius* (between 1520 and 1530), exhibits an illative plural ending in *-uosnu*: 3_{17} <peklvaſnv> 'into the hell' and 3_{18} <dangvaſnv> 'into the heaven'. However, as pointed out by Z i n k e v i č i u s (1966, 212; 1982, 26) and K a z l a u s k a s (1968, 164), the illative singular 1_6 <ſʒalanv> (obviously belonging to *žalà* 'harm') rather indicates that in this particular text the recent phonological merger of word-final *-a* with *-u* has occurred, which is typical of East Aukštaitian around Panevėžys (cf. nom. sg. *šakù*, 3prs. *nẽšu* etc., see Z i n k e v i č i u s 1966, 51–52). However, as stated already by Z u b a t ý (1896, 269), the illative plural in *-uosnu*, *-osnu* etc. is also attested in *Ledesma's Catechism* (1605), cf. 82 <namůsnu>, 41 <dungůsnu>, 44 <zemesnú> etc. The East Aukštaitian dialect of this text has evidently preserved the word-final *-a* unchanged, cf. nom. sg. <mótina>, 3prs. <gêma> 'is born' etc.

The "non-standard" illative plural in *-uosne*, *-osne* and *-uosnu*, *-osnu* etc. has been already explained by L e s k i e n (1919, 179) and H e r m a n n (1925, 293). The starting point of their explanation is again the clear correlation between the vocalism of the "non-standard" illative plural and the ending of the inessive plural. In *Ledesma's Catechism* (1605), both case forms end in *-u* (i.e. iness. pl. *-su* ~ ill. pl. *-snu*), cf. B y s t r o ń (1890, 22–23). In the South Aukštaitian dialect described by B r o c h (1960), both end in *-e*

(i.e. iness. pl. *-se* or *-sæ* ~ ill. pl. *-sne* or *-snæ*). The inessive plural ends in *-e* also in Chylinski's *New Testament* (1658) (i.e. iness. pl. *-se* ~ ill. pl. *-sna* or *-sne*). As was already stated above, the variant forms of the inessive plural, i.e. those ending in *-sa*, in *-se*, and in *-su*, often coexist in Lithuanian dialects (all three, for instance, in Lazūnai, cf. V i d u g i r i s 2014, 117–131). This coexistence is attested at least since the *Prussian Mandate* (1578). This background makes it obvious that the "non-standard" patterns iness. pl. *-su* ~ ill. pl. *-snu* and iness. pl. *-se* ~ ill. pl. *-sne* must be recent analogical creations which emerged on the model iness. pl. *-sa* ~ "standard" ill. pl. *-sna* (cf. 18).[21]

(18)	iness. pl.		ill. pl.		iness. pl.		ill. pl.
	krū́muosu	~			*krū́muosu*	~	*krū́muosnu*
	píevosu	~			*píevosu*	~	*píevosnu*
	krū́muosa	~	*krū́muosna*	⇒	*krū́muosa*	~	*krū́muosna*
	píevosa	~	*píevosna*		*píevosa*	~	*píevosna*
	krū́muose	~			*krū́muose*	~	*krū́muosne*
	píevose	~			*píevose*	~	*píevosne*

It is noteworthy that in mobile nouns the inherited contrast between the end-stressed inessive plural and the penultimate-stressed illative plural (i.e. *katruosà*, *katrosà* ~ *katrúosna*, *katrósna* etc. in Zietela), which has been established in the previous section, was faithfully copied into this more ancient "non-standard" illative plural. Cf. iness. pl. *arkliuosè*, *katėsè* ~ illat. pl. *svotúosne*, *ratósne* in the South Aukštaitian dialect described by B r o c h (1960).

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[21] The emergence of the "non-standard" illative plural in *-sne* might be also resposible for the illative singular ending in *-ne* in Chylinski's *New Testament* (1658), where <wardane> is frequently attested beside numerous attestations of <mieſtan>, <kieman>, <eʒeran> etc. (cf. Z i n k e v i č i u s 1982, 26). The pattern pl. *-sne* ~ sg. *-ne* is probably an artificial creation following pl. *-sna* ~ sg. *-na* which must have been familiar to Chylinski (because of the variant form <wardana> attested once) as the more solemn variant of the spoken pl. *-sna* ~ sg. *-n*. Interestingly, <wardana> in <wardana diewa tiewa> is the only word displaying the illative singular in *-na* and not *-n* in the *Catechisms* by Mažvydas (1547) and Vilentas (1579).

It follows that both "non-standard" types of the illative plural attested in Lithuanian dialects and/or sources can be explained as secondary formations, emerging from the interaction of inherited "standard" illative plural forms in *–uosna*, *–osna* etc. with the different types of the inessive plural.

3.7. Summary: the new account of Lithuanian illative plural

In this section 3 I have tried to demonstrate that phonological and prosodic properties of the Lithuanian illative can be better explained if this case form is assumed to have emerged by a recent, pre-Lithuanian extension of an inherited derivational pattern of adverbs. This hypothesis provides an unforced explanation of:

> (a) the shape of the desinence *-ana*, *-una* > *-an*, *-un* etc. in the illative singular,
> (b) the place of stress in the illative singular of nominals with mobile accentuation (such as *langanà*, *laukanà* > *langañ*, *laukañ* etc.),
> (c) the place of stress in the illative plural of nominals with mobile accentuation (such as *juosnà*, *josnà* and/or *katrúosna*, *katrósna* etc.).

It has been also shown that the existence of such "non-standard" illative plural forms as *krū́muosun*, *píevosun* etc. or *krū́muosnu*, *píevosnu* etc. does not invalidate the conclusions reached.

4. The Proto-Indo-European directional *-no revistited

4.1. The Tocharian locative

As has been repeatedly noticed (cf. Klingenschmitt 1975, 154, fn. 9; 1994, 362; Gippert 1987, 32; Pinault 1989, 75; Schaffner 2006, 160, fn. 61), a special case form of nouns formally and functionally similar to the Lithuanian illative is attested in a branch of Indo-European which is at least geographically very remote from Baltic. This case form is the so-called "locative" case of Tocharian, which is used for encoding direction as well as location (cf. Krause, Thomas 1960, 89–90; Kölver 1965, 96–132; Carling 2000).

The Tocharian locative belongs to the subsystem of recent, so-called "secondary" cases. These are synchronically derived from the inherited obliquus case of nouns (which probably reflects the PIE accusative and locative cases, cf. Klingenschmitt 1975, 152–154) by means of the same marker in both numbers. In West Tocharian (also called "Tocharian B"), which is the phonologically more conservative of the only two known Tocharian languages, the locative ends in *–ne*, cf. (19). Note that the spelling <-iṃ>, <-aiṃ>, <-äṃ> etc. represents respectively phonological /-in/, /-ain/, /-ən/ etc.

(19)		nom.	obl.		loc.	
a	sg.	*riye*	*ri*	~	*ri-ne*	'town'
	pl.	*riñ*	*riṃ*	~	*rin-ne*	
b	sg.	*naunto*	*nauntai*	~	*nauntai-ne*	'street'
	pl.	*nauntaiñ*	*nauntaiṃ*	~	*nauntain-ne*	
c	sg.	*arañce*	*arañc*	~	*arañc-ne*	'heart'
	pl.	*arañci*	*arañcäṃ*	~	*arañcän-ne*	

The situation found in West Tocharian makes it possible to understand the situation in East Tocharian (also called "Tocharian A") which is, on the average, somewhat less conservative in its phonology and, partly, also in its inflection. As shown in (20), the etymological counterpart of the vowel WToch *e* is EToch *a*. These vowels, which must have developed out of something traditionally reconstructed as Proto-Toch *æ, ultimately reflect pre-Tocharian *o. It is important that, as is also shown in (20), this Proto-Toch *æ is preserved (as *e*) in West Tocharian in all positions. By contrast, in East Tocharian this vowel is only preserved (as *a*) in the roots of words, but is regularly lost in word-final position.

(20)	WToch	EToch		Proto-Toch		PIE
	keme	*kam*	<	*kæmæ	'tooth' <	*$\hat{g}$ómb^{h}os
						(Gk *gómphos* 'plug, bolt', Lith *žam̃bas* 'edge', Latv *zùobs*, OCS *zǫbъ* 'tooth')
	yakwe	*yuk*	<	*i̯əkwæ	'horse' <	*h₁éḱu̯os
						(Skt *áśvas*, Lat *equus*, OIr *ech*, OE *eoh* 'horse')
	leke	*lak*	<	*lækæ	'bed' <	*lóg^{h}os
						(Gk *lókhos* 'ambush, place for lying in wait', Ru *log* 'ravine')

The regular loss of Proto-Toch *æ at word-ends implies that the etymological counterpart of the locative marker WToch -*ne* should be something like EToch -*n*, which could be written <-n> or, more frequently <-ṃ>. This is clearly borne out by the evidence. Cf. (21a) for the formation of the locative singular in the paradigm of the inherited thematic nouns (i.e. Proto-Tocharian æ-stems, PIE o-stems). It is easy to see that all three given

case forms of West and East Tocharian perfectly match each other. However, the regular loss of the stem-final vowel Proto-Toch *-æ (> WToch –e) in the nominative and obliquus cases of East Tocharian obviously facilitated a recent reanalysis of the inherited locative singular *ānta-ṃ* as *ānt-aṃ* etc. (cf. Klingenschmitt 1994, 360). The new pattern of the locative case formation obl. sg. *ānt* ~ loc. sg. *ānt-aṃ* etc. subsequently spread in East Tocharian to all other stem classes (cf. 21b). A similar development can be assumed for the plural of all stem classes.

(21)			nom.	obl.		loc.	
a	WToch	sg.	*ānte*	*ānte*	~	*ānte-ne*	'surface'
			kraupe	*kraupe*	~	*kraupe-ne*	'group'
			were	*were*	~	*were-ne*	'smell, odour'
	EToch	sg.	*ānt*	*ānt*	~	*ānta-ṃ*	'surface'
			krop	*krop*	~	*kropa-ṃ*	'group'
			war	*war*	~	*wara-ṃ*	'smell, odour'
b	WToch	sg.	*ost*	*ost*	~	*ost-ne*	'house'
			arañce	*arañc*	~	*arañc-ne*	'heart'
			śaul	*śaul*	~	*śaul-ne*	'life'
	EToch	sg.	*waṣt*	*waṣt*	~	*waṣt-aṃ*	'house'
			āriñc	*āriñc*	~	*āriñc-aṃ*	'heart'
			śol	*śol*	~	*śol-aṃ*	'life'

It follows that the locative markers WToch –*ne*, EToch –*a-ṃ* presuppose Proto-Toch *-næ, potentially pre-Toch *-no, which is very similar to pre-Gmc *-nV̆ and Proto-East-Baltic *-na in directional adverbs.

However, Proto-Toch *-næ in the locative case of nouns and pronouns clearly reflects not a bound morpheme but a clitic which only recently (perhaps after the dissolution of Proto-Tocharian) was univerbated with the obliquus case of its nominal host. This follows from three facts pertaining to the more conservative West Tocharian (cf. Krause, Thomas 1960, 79). First, adding –*ne* does not cause the otherwise obligatory shift of stress on the new penultimate and subsequent automatic mutation *a* > *ä* and *ā* > *a* in the root (cf. 22a where the locative of two nouns is contrasted with an adjective containing a true suffix). Second, –*ne* can be separated from its nominal host by the emphatic particle –*k* (cf. 22b). Third, –*ne* is sometimes attached not to its host noun but to the second component of a complex noun phrase (as, for instance, to a nominal attribute in the genitive case, cf. 22c).

(22)

a	WToch	obl. sg.		loc. sg.	adj. obl. sg.	
		lakle	~	*lakle-ṣṣe*	*läkle-ṣṣe*	'suffering'
		āke	~	*āke-ne*	*ake-ṣṣe*	'end'

b	WToch	obl. sg. nt.		loc. sg.		
		tu	~	*tu-k-ne*		'this, it'

c	WToch	obl. sg.		loc. sg.		
		ṣkas meñantse	~	*ṣkas meñantse-ne*		'on sixth of a month'

If the locative case marker Proto-Toch *-næ was not a bound morpheme but a clitic, it most probably originated in an adverb used as postposition, like the other markers of the Tocharian "secondary" cases. It should be taken into account that in Tocharian originally disyllabic adverbs turning into such adpositions might lose the vowel in their first syllable. This seems securely established for Proto-Toch *ə, cf. Proto-Toch *ćəlæ 'likewise' (WToch *śale*, EToch *śla*) yielding the pre- and postposition WToch *śle* 'together with' and the comitative case marker EToch *-a-śśäl* (cf. A d a m s 2013, 89–90, 680). The same is probably true for the comitative marker WToch *-mpa*. Although its etymology is not yet securely established (cf. A d a m s 2013, 514), WToch *-mpa* can hardly be inherited in this form but must reflect a more ancient disyllabic adverb.

This means that the locative marker WToch *-ne*, EToch *-a-ṃ* may in fact reflect an originally disyllabic adverb Proto-Toch *ən(n)æ > *æn(n)æ whose semantics would have roughly resembled English *there*. Such an adverb seems to have indeed existed in Tocharian. It is preserved as the first member of adverbial compounds given in (23a) (cf. K l i n g e n s c h m i t t 1994, 361; A d a m s 2013, 89–90; K i m 2018, 96). Typologically such adverbial compounds seem to closely resemble Englisch *there-in* etc. The development Proto-Toch *ən > *æn at the beginning of a stressed word finds a parallel given in (23b) (cf. R i n g e 1996, 99; S c h a f f n e r 2006, 166–168; A d a m s 2013, 88).

(23)	WToch	EToch		PToch		cf.
a	*eneṃ*	*anne, ane*	<	*æn(n)æ-i̯ən	'inside'	Toch B *y(n)-* < PIE *én 'in' (Gk *en*)
	enepre	*anapär*	<	*æn(n)æ-præ	'before'	< PIE *pró 'before' (Skt *prá*, Gk *pró*)
	eneśle	--	<	*æn(n)æ-ćəlæ	'like'	Toch B *śale* 'likewise'
b	*e(n)-*	*a(n)-*	<	*æn- < *ən-	'un-'	< PIE *n̥- (Skt, Gk *a(n)-*, Lat *in-*)

Proto-Toch *ən(n)æ > *æn(n)æ reconstructed in (23a) can be analysed as reflecting an adverb pre-Toch *n̥-nó where the root *n̥- would reflect PIE *n̥ 'in' (cf. Lith į̃ 'in') and the suffix represent the pre-Tocharian counterpart of pre-Gmc *-nV̆ and Proto-East-Balt *-na of directional adverbs.[22] The original semantics of the Proto-Tocharian adverb would have been roughly 'inward', secondarily something like 'there' by semantic bleaching.

If this scenario is accurate, the Tocharian locative must have developed, despite all superficial similarity between Toch B -ne and Lith -na, in a way quite different from what has been assumed in sections 2 and 3 about the origin of the Lithuanian illative. While the latter emerged by a secondary integration of denominal adverbs into the nominal inflection, the former has developed via univerbation of an adverb with a case form of nouns.

The only point which remains to be clarified is the function of the Tocharian locative marker and, therefore, also the original semantics of the hypothetical adverb which this marker seems to reflect. As already stated above, unlike the Lithuanian illative the Tocharian locative is used not only for direction but also for location. WToch *ost-ne* can equally mean 'in the house' and 'into the house'. Accoringly, the hypothetical adverb Proto-Toch *æn(n)æ, on which the locative marker is based, must have originally meant something like English *there* in both its functions, the directional (*Let's go there*) and the locational (*Let's stay there*). Given the hypothetical origin of the adverb in a compound pre-Toch *n̥-nó containing PIE *n̥ 'in', its original semantics must be assumed to have been 'inward' and, at the same time, 'inside'. This functional property of Proto-Toch *ən(n)æ, hypothetically underlying the Tocharian locative case, makes it necessary to return to the etymology of the PIE directional *-no which has been reconstructed in section 2 above for the common prehistory of Baltic, Germanic and Italic.

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[22] See S c h a f f n e r (2006, 158–165) for more evidence for PIE *n̥- beside *én 'in'. In K l i n g e n s c h m i t t (1994, 361) the adverb Proto-Toch *ən(n)æ > *æn(n)æ is explained as consisting of pre-Toch *n̥- > Proto-Toch *ən- and the 3sg. pronominal clitic Proto-Toch *-næ 'him, her' (cf. WToch -ne, EToch -ṃ). This is unlikely because this clitic seems to attach itself only to verbs. K i m (2019, 95–96) explains Proto-Toch *æn(n)æ in WToch *enepre* etc. as the Tocharian counterpart of Lith *anàs*, Proto-Gk *-enos (in Ion *keînos*), ON -inn etc. This seems equally unlikely because pre-Toch *eno- (cf. recently ALEW, 39) should have rather yielded Proto-Toch *i̯ənæ- (cf. WToch *yakwe* 'horse' < pre-Toch *ek̯u̯os like Lat *equus* etc.). Kim's reconstruction of a variant form of the pronoun with PIE *o in the first syllable is not sufficiently supported by the IE daughter-languages.

4.2. The original semantics of the Proto-Indo-European adverbial *-no

As already stated at the end of subsection 2.2 above, the marker assumed to be reflected in Proto-East-Baltic *-na, pre-Germanic *-nV̆ and Proto-Italic *-no cannot be a clitic. This follows from the fact that in East-Baltic and pre-Germanic this marker is and/or was capable of bearing stress (cf. Lith *kanà*, *tanà* and Proto-Gmc *uppV̆, *uttV̆ presupposing pre-Gmc *ubnV̆, *udnV̆). If this marker was not a clitic, it must have either been a bound morpheme, i.e. a suffix, or an originally stressed word capable of forming compounds. This conclusion seems to already exhaust what can be securely established about this marker of directional adverbs.

However, hypotheses concerning the origin of this Proto-East-Baltic *-na, pre-Germanic *-nV̆ and Proto-Italic *-no are possible. In the following, two such hypotheses will be introduced and briefly evaluated.

The starting point of the first hypothesis is the observation that, from the point of view of the internal Proto-Germanic state of affairs, such directional adverbs as Proto-Gmc *innV̆ 'inward' etc. can be analysed as reflecting a case form of thematic nouns. This follows from the fact that directional adverbs of the type Proto-Gmc *innV̆ 'inward' etc. are accompanied by locational adverbs such as *innai 'inside' etc. (cf. 24a).[23] The pattern Proto-Gmc *innV̆ 'inward' ~ *innai 'inside' makes one think of a formally and functionally similar contrast in the inflection of thematic nouns where the accusative singular ending in Proto-Gmc *-a can be used for encoding direction and the dative singular in Proto-Gmc *-ai may encode location (cf. 24b).

(24)

a   directional adverb   locational adverb
     Proto-Gmc *innV̆ 'inward'   ~   *innai 'inside'
     (Goth, ON *inn*, OHG *īn*)   (Goth *inna*, ON *inni*, OHG *inne*)
     Proto-Gmc *uppV̆ 'upward'   ~   *uppai 'on the top'
     (ON *upp*, OHG *ūf*)   (ON *uppi*, OHG *ūffe*)
     Proto-Gmc *uttV̆ 'outward'   ~   *uttai 'outside'
     (OE *ūt*, OHG *ūz*)   (OE *ūte*, OHG *ūzze*)

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[23] In S c h m i d t (1962, 194) and K r o o n e n (2010, 368–371) such locational adverbs are reconstructed as ending in Proto-Gmc *-nē which is phonologically equally possible.

b   accusative singular   dative/locative singular
    Proto-Gmc *hūsa 'toward the house'   ~   *hūsai 'in the house'
    (Goth *hus*, OHG *hūs*)   (Goth *husa*, OHG *hūse*)
    Proto-Gmc *þurpa 'toward the village'   ~   *þurpai 'in the village'
    (Goth *þaurp*, OHG *dorf*)   (Goth *þaurpa*, OHG *dorfe*)

Based on this observation, Klingenschmitt (2005, 149, fn. 7) and Schaffner (2006, 158) explain such adverbs as Proto-Gmc *innV̆, *innai etc. as fossilised case forms of thematic nouns whose other forms were lost in Germanic. This means that Proto-Gmc *innV̆ (then *inna) 'inward' and *innai 'inside' would reflect the accusative and locative singular of a neuter pre-Gmc *en-nó- 'inside, interior', ultimately based on PIE *én 'in'. The derivational pattern *PIE *én 'in' → pre-Gmc *en-nó- is established by reference to Skt *purā́* 'before' → *purā-ṇá-* 'former', nt. 'ancient event, tale'.

This explanation of the pattern Proto-Gmc *innV̆ (probably *inna) 'inward' ~ *innai 'inside' etc. is possible. However, it is rather unattractive because it necessarily separates the Proto-Germanic directional adverbs in *-nV̆ from their Italic and East Baltic counterparts. The accusative singular of a thematic noun would necessarily end in PIE *-om > early-Proto-Gmc *-an. The last vowel of Lat *pōne* and -Ø of Lith *čiõn* etc. cannot reflect PIE *-om (which yields Lat *-um*, Lith *-ą*) but only PIE *-o whose Germanic counterpart would be early-Proto-Gmc *-a. In Proto-Germanic, recent phonological processes pertinent to word-ends make it impossible to distinguish between early-Proto-Gmc *-an and *-a (cf. 25). But the attractive comparison with Italic and East Baltic can only be maintained if Proto-Gmc *innV̆ 'inward' is assumed to reflect early-Proto-Gmc *inna < pre-Gmc *en-nó.

(25)	pre-Gmc		early-Proto-Gmc		Runic	Goth	OHG	OE
1sg. perf.	*-a	>	*wraita 'wrote', *staiga 'stepped' etc.	>	**wraita**[24]	*staig*	*steig*	*wrāt*
acc. sg.	*-om	>	*stainan 'stone' etc.	>	**staina**	*stain*	*stein*	*stān*

If the directional adverbs Proto-Gmc *innV̆ 'inward' etc. are assumed to reflect early-Proto-Gmc *inna < pre-Gmc *en-nó etc., the corresponding locational adverbs, such as Proto-Gmc *innai 'inside', still can be explained. An obvious explanation would be a morphological analogy postdating the merger of early-Proto-Gmc *-a and *-an into Proto-Gmc *-a. Such an analogy would create the locational adverbs Proto-Gmc *innai beside the inherited directionals

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[24] Cf. most recently Poulsen (2020) with references.

Proto-Gmc *inna etc. by a simple imitation of the pattern directional in *-a ~ locational in *-ai in thematic nouns (cf. 24b). A different and in my view more plausible explanation will be presented in subsection 4.3 below.

Accordingly, the second hypothesis on the origin of directional adverbs in East Baltic, Italic and Germanic starts with PIE *-no. If one looks for similar morphemes in other parts of Indo-European grammar, one immediately stumbles upon a second PIE *-no which also appears to be used for deriving adverbs and/or adverbially used case forms of nominals. This second PIE *-no can be reconstructed on the basis of two slightly different patterns. The first of these patterns is given in (26); it must be reconstructed for PIE.

(26) Proto-Indo-European   daughter-languages

pronom. stem		adverb			
*ḱí- 'this here' (Lat ci-ter, OHG her)	~	*ḱé 'thus, here' (OLat -ce, OCS se, Lith šè, Latv dial. se)	> *ḱe-nó >	Lith šenà,[25] šeñ 'hither', OPr schien, schan 'here'
*kʷí- 'someone' (Gk tis, Lat quis)	~	*kʷé 'somehow, -where' (Lat -que, Gk -te)[26]	> *kʷe-nó >	Skt caná, YAv cina 'anyhow', OHG -gin, ON -gi 'any'[27]
*tí- 'that (one)' (Lith tì, OHG diz, OFr thit)[28]	~	*té 'then, there' (Gk -te, Goth -þ, Lith tè, Latv te)	> *te-nó >	Lith tena,[22] teñ 'there'
*kʷú- 'where being' (Skt kú-tra, kú-ha, OCS kъ-de)	~	*kʷú(-u) 'where' (Skt kū́, OAv kū)	> *kʷu-nó >	Goth -hun 'any'[29]

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[25] Lith šenà is found in Zietela, cf. V i d u g i r i s (2004, 295), ZietŠŽ, 657; tena is attested in Mažvydas, Forma Chrikſtima (1559), cf. ALEW, 1092.

[26] PIE *kʷé is discussed in LIPP 2, 442–446, 701, for PIE *té cf. LIPP 1, 178.

[27] Cf. LIPP 2, 482–484. Proto-Gmc *-gina is preserved in *hʷar-gina reflected in OS hwer-gin, OHG wer-gin, ON hver-gi 'some-, anywhere' (cf. Goth hʷar 'where', see H i l l 2017 for details). The development of the labiovelar after a liquid finds a parallel in ON ylg-r 'she-wolf' (< PIE *u̯l̥kʷī́s, cf. Skt vr̥kī́s). In North Germanic, -gi became secondarily productive, cf. ON hver-gi 'anyone', en-gi 'no one' beside hverr 'who', einn 'one' etc.

[28] On Lith tì < PIE *tíd 'that', cf. recently O s t r o w s k i (2014, 272). The neut. OHG diz, OFr thit 'that (one)' presupposes Proto-Gmc *þit-þi, i.e. a reduplicated PIE *tíd, cf. K l i n g e n s c h m i t t (2005, 264), LIPP 2, 782.

[29] In Goth ni ... hʷas-hun, ains-hun 'not anyone' (with hʷas 'who', ains 'one'), cf. LIPP 2, 438, fn. 18.

The second pattern is given in (27). It is only attested in Indo-Iranian where the masculine and neuter form of the instrumental singular of thematic nouns, adjectives and pronouns displays a variety of forms, a part of which contain a marker potentially reflecting PIE *-no. Not unlike the situation with Lith ill. sg. *kanà*, *tanà* etc., such Proto-Indo-Iranian instrumentals make the impression of denominal adverbs, only secondarily integrated into the inflection of nominals.

(27) Proto-Indo-European   Proto-Indo-Iranian
     pronom.   loc. sg. instr. sg.   instr. sg.
     stem   masc., neut.   masc., neut.

     *kʷó- 'who' ~ *kʷó-i   *kʷó-h₁ > *kā́, *kái̯-na, *kā-ná   > Skt *kéna*, YAv *kā*,
                                                                kana[30]
     *tó- 'this' ~ *tó-i   *tó-h₁ > *tā́, *tái̯-na, *tā-ná   > Skt *téna*, YAv *tā*
     *éu̯o- 'that' ~ *éu̯o-i *éu̯o-h₁ > *áu̯ā, *áu̯ai̯-na, *áu̯ā-na > YAv *auua*, OPers
                                                                avanā

It is tempting to assume that PIE *-no in directional adverbs and PIE *-no given in (26) and (27) are etymologically one and the same marker. This presupposes an original function out of which the directional semantics of the first PIE *-no and the deviating functions of the second PIE *-no can be equally explained.

The precise function of the second PIE *-no is somewhat difficult to establish. In the cases given in (26) it seems to encode direction and location. In the pattern given in (27), which seems to be confined to Indo-Iranian, the marker derives adverbs with instrumental semantics from (pro)nominal instrumentals and locatives.

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[30] The root-stress of Proto-IIr *kái̯-na (Skt *kéna*) etc. in contrast to Proto-IIr *ča-ná (Skt *caná*) might be due to the possibly disyllabic pronunciation of the underlying loc. sg. PIE *kʷó-i (implied by Gk *oíkoi* 'at home' etc.). Cf. similarly Lith *juos-nà*, *jos-nà* vs. *katrúos-na*, *katrós-na* etc. (see subsection 3.5 above). The tentative reconstruction Proto-IIr *kā-ná, *áu̯ā-na > YAv *kana*, OPers *avanā* depends on the assumption of a secondary shortening in the common prehistory of Avestan and Old Persian. This shortening is, however, securely established only for Avestan (cf. Skt *nā́nā* 'one by one' ~ OAv *nanā*, YAv *nana*, see EWAia 2, 34–35). Cf. also OAv *anā*, YAv *ana*, OPers *anā* which probably belongs to the anaphora Proto-IIr *a- but may also belong to Proto-IIr *aná- (cf. neut. instr. sg. Skt *anā́*, *anéna*) < PIE *(h₁)eno- 'that (one)' (Lith *anàs*, Proto-Gk *ke-enos in Ion *keĩnos*, Dor *kẽnos*). Cf. differently H o f f m a n n , F o r s s m a n 2004, 168; LIPP 1, 149; 2, 55–59.

As it seems, all three functions of both PIE *-no – i.e. the directional of the first one, the directional and/or locational of (26) and the instrumental of (27) – are derivable from one and the same semantic concept, the concept underlying English *through*, *across*.[31] Such sentences as *Let's go there through/across the meadow/forest* necessarily presuppose:

   (a)   moving toward the meadow/forest and entering it,
   (b)   moving/being inside the meadow/forest,
   (c)   exiting the meadow/forest on the opposite side.

The functional components (a) and (b) can be respectively responsible for the directional semantics of the first PIE *-no and the function of the second PIE *-no given in (26). As for the pattern given in (27), the concept 'through, across' is a cross-linguistically recurrent source of instrumentals, cf. Modern German *durch* 'through' and 'by means of', Russian *čérez* 'through', in dialects also 'by means of' etc. It is no coincidence that in Tocharian where the concept 'through, across' is encoded by a special case form of nouns, the so-called "perlative," this case form is functionally often very close to the cases locative and instrumental (cf. K r a u s e, T h o m a s 1960, 84–85).

If this reconstruction is accurate, PIE *-no originally meant something like 'through', from which in different Indo-European branches the directional, locational and the instrumental functions might have developed. On this background, the co-existence of 'inward' and 'inside' in the hypothetical adverb underlying the marker of the Tocharian locative case is unsurprising.

4.3. The etymology of the Proto-Indo-European adverbial *-no

Finally, this reconstruction of the original function of the PIE adverbial *-no makes it possible to speculate about its etymology. Traditionally the marker of the Lithuanian illative has been compared to a local adverb whose semantics seemed to be somehow related to the function of this case (cf. S t a n g 1966, 230; K a z l a u s k a s 1968, 164; Z i n k e v i č i u s 1980, 256; P i n a u l t 1989, 75; S e r ž a n t 2004b, 64; P e t i t 2007, 341–342, among many others). This local adverb is preserved in Slavonic as OCS, ORu *na*, *na-* 'on, onto', in Baltic it is reflected as OPr *no* 'onto, to, toward' and Lith *nuõ*, *nu-*, Latv *nùo*, *nùo-* 'from'.[32] All this presupposes something like early-PIE *$néh_3$ (> PIE *$nóh_3$) or *$nóH$.[33]

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[31] Cf. similarly G a r c í a R a m ó n (1997) with references.

[32] The prosody of this adverb's East Baltic descendants is discussed in H i l l et al. (2019, 160–172).

[33] Cf. LIPP 2, 52 for a different approach.

The identification of this local adverb with PIE *-no investigated in the previous subsection implies that adverbs containing this element originally were compounds. The suggested semantic analysis of PIE *-no implies that early-PIE *néh₃ (> PIE *nóh₃) or *nóH meant roughly 'through, across' which seems to yield all its functions attested in the individual Baltic and Slavonic languages. From the formal perspective this etymology suffers from the absence of the laryngeal in PIE *-no. Given the fact that adverbial compounds with directional, locational and/or instrumental semantics may be often used in one-word clauses (cf. English *Where?* German *Womit?*), this last problem can be resolved by the well-known Kuiper's Law, i.e. attributed to the loss of word-final laryngeals in word-forms followed by a break. Cf. (28a) where this well-know development is demonstrated for the vocative singular of PIE ah₂-stems and (28b) where the same is assumed for early-PIE *néh₃/*nóH and *-no. A trace of the original variation between PIE *nóH and *-no# emerged by Kuiper's Law might be preserved in the well-known vacillation Skt instr. sg. *téna*, *yéna* ~ *ténā*, *yénā* etc. (cf. M a c d o n e l l 1910, 256–257; D e b r u n n e r, W a c k e r n a g e l 1930, 498–499).

(28)		early-PIE		PIE		
a	nom. sg.	*-eh₂	>	*-ah₂	>	Skt -ā, Gk -ā, -ē, OCS -a
	voc. sg.	*-eh₂#	>	*-a#	>	Gk -ă, Lat -ă, OCS -o
b	simplex	*néh₃ or *nóH	>	*nóh₃ or *nóH	>	OCS *na*, OPr *no*, Lith *nuõ*
	compound	*-neh₃# or *-nóH#	>	*-nó#	>	Lith -*na*, Lat -*ne*, WToch -*ne*

The suggested identification of the hypothetical PIE *-no with the local adverb PIE *nóh₃ or *nóH makes it possible to explain the locational variant forms of Germanic directional adverbs which were discussed in the previous subsection 4.2. As shown in (24a), Proto-Gmc *innV̆ 'inward' and similar directional adverbs were accompanied by Proto-Gmc *innai 'inside' and similar locational adverbs ending in Proto-Gmc *-ai. It is noteworthy that a very similar variation is also attested in Baltic where directional and locational adverbs ending in Proto-Balt *-na display by-forms ending in Proto-Balt *-naĩ, cf. (29).

(29)   East Baltic   Lithuanian
        Lith *čià* 'here'   ~   *čiõn*   *čionaĩ*   'hither'
        Lith *šè*, Latv dial. *se* 'here, hither' ~   *šeñ*   *šenaĩ*   'hither'
        Lith *tè*, Latv *te* 'there'   ~   *teñ*   *tenaĩ*   'there'
        Lith *nù*, *nū̃*, Latv *nu*, dial *nù* 'now' ~ *nū̃n*   *nūnaĩ*[34] 'now, today'

The variation Proto-Gmc *-nV̆ ~ *-nai and Proto-Baltic *-na ~ *-naĩ can be explained by taking into account, alongside Kuiper's Law just applied, the well-known inclination of Indo-European local adverbs to develop by-forms extended with the particle PIE *-i. This is shown in (30a) where PIE *nóH 'across, through' is intergrated into the pattern. In (30b) it is demonstrated that PIE *nóH-i should actually yield a syllable bearing the acute intonation in Baltic. However, it is also known that in word-final position acute Proto-Baltic diphthongs are sometimes reflected with circumflex intonation in Lithuanian (cf. 30b). For this reason, it seems legitimate to identify Lith -*naĩ* in the relevant adverbs with Proto-Gmc *-nai and to explain both as reflecting PIE *nóH-i, an i-variant of PIE *nóH 'across, through'.

(30)
a   PIE *pér 'around'   ~   PIE *pér-i 'around'
        (Gk -*per*, Lat *per*, OCS *prě*-)   (Skt *pári*, Gk *péri*, *perì*)
        PIE *én 'inside, in'   ~   PIE *én-i 'inside, in'
        (Gk *en*, Latv *ìe*-)   (Gk *ení*, Goth, OHG *in*)
        PIE *nóH 'across, through'   ~   PIE *nóH-i
        (OCS, ORu *na*, Lith *nuõ*, Latv *nùo*)   (Proto-Gmc *-nai, Lith -*naĩ*)

b   PIE acc. sg. *dah₂iu̯ér-m̥   >   Lith acc. sg. *díeveri̯* 'brother-in-law'
        (Gk *dāéra*, OCS *děverъ*)
        PIE acc. sg. *poh₃imén-m̥   >   Lith acc. sg. *píemeni̯* 'herdsman'
        (Gk *poiména*)

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[34] In theory, Lith *šenaĩ* and all the other adverbs in -*aĩ* given in (29) can be explained as recent by-forms of *šeñ*, dial. *šenà* etc., created in dialects only after the apocope of -*a*. The model pattern for their creation would be provided by masc. nom. sg. *jìs*, *tàs* ~ emph. *jis-aĩ*, *tas-aĩ* etc. However, Lith *nūnaĩ* has a Slavonic counterpart OCS *nyně*, OCz *nyní* 'now'. This case demonstrates that adverbs in Lith -*naĩ* must be at least partially inherited from Proto-Balto-Slavonic. On the variation Lith *nù* ~ *nū̃*, Skt *nú* ~ *nū̃* etc., cf. LIPP 2, 577–581.

c   Proto-Balt nom. pl. (masc.) *-ái
     adjectives OPr *swintai*, Latv *mazi*   ~   Lith *šventì, mažì*, det. *-íe-ji*
     nouns OPr *waikai*, Latv *kaĺni*   ~   Lith *vaikaĩ, kalnaĩ*

5. Summary

A close inspection of the Lithuanian illative case of nouns, pronouns and adjectives reveals the following. The illative case, found in Lithuanian since the very begin of its text records in the early 16th c., is a recent formation which, in the given form, may have emerged as late as after the disintegration of Proto-East-Baltic. In both numbers the illative case forms of Lithuanian nouns emerged out of directional adverbs, which were in turn based on adverbially used case forms of nouns. The marker of the Lithuanian illative is an inherited suffix of directional adverbs which is also attested in Germanic, Italic and probably also Tocharian. The situation in Tocharian makes it probable that PIE *-no was originally used for deriving adverbs not with primarily directional but rather with perlatival semantics. The last hypothesis explains why PIE *-no, presupposed by the Lithuanian illative and Tocharian locative on the one hand and PIE *-no used for deriving the instrumental case of Indo-Iranian pronouns on the other, have the same phonological shape.

LIETUVIŲ ILIATYVO KILMĖ

Santrauka

Atidžiai išanalizavus lietuvių kalbos daiktvardžių, įvardžių ir būdvardžių iliatyvo formas, matyti, kad iliatyvas, lietuvių kalboje liudijamas nuo pat raštijos pradžios XVI a., yra vėlyvas darinys, galėjęs atsirasti rytų baltų prokalbės skilimo laikais. Abiejų skaičių iliatyvo formos atsiradusios iš krypties prieveiksmių, kurie savo ruožtu kilę iš prieveiksmiškai vartotų daiktavardžio formų. Lietuvių iliatyvo žymiklis yra paveldėta krypties prieveiksmių priesaga, paliudyta taip pat germanų, italikų ir galbūt tocharų kalbose. Tocharų kalbos duomenys leidžia manyti, kad ide. *-no* pradžioje buvo vartojamas ne tiek krypties, kiek perlatyvinės reikšmės prieveiksmių daryboje. Pastaroji hipotezė paaiškina, kodėl ide. *-no*, suponuojama lietuvių iliatyvo ir tocharų lokatyvo, ir ide. *-no*, vartota indų-iranėnų prieveiksmų instrumentalio formų daryboje, turi tą pačią fonologinę formą.

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