The prehistory of Old Lithuanian uß oßczių

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Abstract. The aim of the present paper, offered to Prof. Nikolai Kazansky as a token of respect and homage for his contribution to Indo-European linguistics, is to explore the etymology of an Old Lithuanian prepositional locution uβ oβcʒių 'on the back side' used twice by Jonas Bretkūnas in two different passages of his translation of the Bible (1590). It can be argued that the genitive plural *oβcziu* reflects a feminine noun **oščios* 'backside' limited to the plural (plurale tantum) and is based on a Baltic feminine noun *āź-tjā-. Historically, $*\bar{a}z'-tj\bar{a}$ - seems to reflect the combination of a lengthened allomorph of the preposition az(u)- 'behind' and a suffix *-tio- which enjoyed a certain productivity in the prehistory of the Baltic languages. The long vowel of the preposition * $\bar{a}z$ - is striking, however, and remains completely unparalleled in Lithuanian, where $a\bar{z}(u)$ is only attested with a short vowel, or with lengthening of the second vowel ažúo-, but not with a first long vowel $*\bar{a}z$, which in turn appears in some Latvian dialects $(\bar{a}z)$. Taken at face value, the alternation between *\(\tilde{a}z'\)- and *\(\tilde{a}z'\)- preserved in the prepositional locution u\(\theta\) o\(\beta c \gamma iu\) recalls that between * $p\bar{a}$ - (Lithuanian pa-) and * $p\bar{a}$ - (Lithuanian $p\acute{o}$ -), but the difficulty is how to clarify the function of its initial lengthening in contrast with the more common alternation * $a\dot{z}(u)$ -/ $a\dot{z}uo$ -. On the other hand, the Baltic suffix - $tj\bar{a}$ (< Proto-Indo-European *-tieh₂-) is well attested in Baltic, in particular in the formation of abstract feminine nouns derived from prepositions (cf. for example Lithuanian apačià 'lower parts, undersides', Latvian apakša 'lower part' < Baltic *apa-tjā < Proto-Indo-European *(H)opo-tjeh2-).

Keywords: Lithuanian, Baltic, etymology, preposition.

Предыстория старолитовского ив овсзіц

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Аннотация. В данной статье рассматривается этимология старолитовского выражения $u\beta$ $o\beta c \tau iu$ 'на обратной стороне', встречающегося дважды в переводе

Библии Йонаса Бреткунаса (1590). В обоих случаях $u\beta$ $o\beta cziu$ оказывается дополнением или глоссой к словам $u\beta pakali$ 'на задней стороне' (loc. sg.) или ifch $u\beta pakalo$ 'сзади' ($i\ddot{s}$ + gen.) в основном тексте. Можно предположить, что $o\beta cziu$ — это форма родительного падежа множественного числа от имени женского рода * $o\dot{s}\dot{c}ios$ 'обратная сторона' (plurale tantum) и восходит к балтийской праформе * $a\dot{z}-tj\ddot{a}-$, образованной от алломорфа предлога $a\dot{z}(u)-$ 'за, позади' при помощи суффикса * $-ti\ddot{a}-$, который был в определенной степени продуктивным в предыстории балтийских языков. Вариант * $a\dot{z}-$, реконструируемый в рамках данной этимологии, в литовском не засвидетельствован. Тем не менее литовские предлоги демонстрируют высокую степень вариативности: так, для предлога со значением 'за' известны следующие формы в литовском ($a\dot{z}\dot{u}$, $a\dot{z}$, $u\dot{z}\dot{u}$, $u\dot{z}$, $a\dot{z}\dot{u}$,

Способ образования имен прилагательных от предлогов при помощи суффикса *-tio- хорошо известен в индоевропейских языках. Большинство образований подобного типа в литовском являются существительными женского рода, при этом иногда они могут изменяться только по множественному числу, как, например, $\tilde{a}pa\check{c}ios$ 'остатки, (картофельные) очистки'. Соответственно, основой старолитовского высказывания $u\beta$ $o\beta cziu$, вероятно, было существительное множественного числа женского рода oscios 'обратная сторона', а не мужского рода socios *oscios* oscios* oscios*

Ключевые слова: литовский, балтийские языки, этимология, предлог.

"Und alles bleibe hinter mir" (Johann Wolfgang von Goethe)

Looking back over the span of the past twenty years, and particularly if I try to remember the time of the Lithuanian workshop at Palūšė (1997), where I first met Prof. Nikolai Kazansky, I can only be struck by the fact that Baltic philology has taken on a different face. Not only have primary data been made more easily accessible to the scholarly world, due to the edition of many ancient texts, but Baltic philology has also implemented new linguistic approaches and developed original, hitherto unexplored perspectives. As a result, new problems came to light, both

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in the synchronic description of the Baltic languages and in their diachronic analysis. The Old Lithuanian corpus, in particular, provided us with a wealth of new data, which were previously unknown or ignored and deserve thorough philological investigations, paying due attention to their context. The aim of this paper, offered to Prof. Nikolai Kazansky as a token of respect and homage for his contributions to Indo-European linguistics, is to explore the prehistory of an Old Lithuanian locution $u\beta$ $o\beta cziu$ 'on the back side', which appears exclusively in the works of Jonas Bretkūnas (16^{th} century) and has left no trace in Modern Lithuanian.

The Old Lithuanian locution $u\beta$ $o\beta cziu$ 'on the back side' is not mentioned in Ernst Fraenkel's [LEW] (1962–1965), nor in Wojciech Smoczyński's [SEJL] (2007), but is duly described in Wolfgang Hock's [ALEW 2: 722], where it incidentally grabbed my attention. In Old Lithuanian, it seems to be limited to Jonas Bretkūnas' translation of the *Bible* (1590), where it occurs twice:

- (1) Old Lithuanian: Jonas Bretkūnas, *Biblia* (1590: 95v₂₅, *Ex*. 26:23) priegtam dwi lenti board.ACC.DU.F in addition two.ACC.DU.F ußpakali ГиВ овсзіи1 back side.Loc.sg back side.GEN.PL dweiu salparu [tabernakulo] ant tabernacle.GEN.SG two.GEN.PL corner.GEN.PL on '(And you shall make) two frames for corners of the tabernacle in the rear.' (German: dazu zwey bret hinden an die zwo ecken der
- Old Lithuanian: Jonas Bretkūnas, Biblia (1590: 79v₁₆, ISam. 15:11) (2) nesa ghis iſch иßpakalo nog manens for 3 SG NOM out of back.GEN.SG from 1.SG.GEN atkripa Гиви овсьстіи turn back.pst.3 back side.GEN.PL กนํย manens nussikreipe] from 1.sg.gen turn back.pst.3 'For he turned back from me.' (German: er hat sich hinder mir abgewand).

In both occurrences the locution $u\beta$ $o\beta cziu$ appears as an addition, or a gloss, to the main text, where we find $u\beta pakali$ 'on the back side' (loc. sg.) resp. ifch $u\beta pakalo$ 'from the back side' ($i\check{s}$ + gen.). It may be suggested that $u\beta$ $o\beta cziu$ reflects an alternative translation of the text, eventually downgraded to a marginal note and replaced by a more usual expression. As such, it is unlikely to represent anything else than a moribund archaism. This prompts us to examine this frozen locution carefully in order to determine its origin. No other Old Lithuanian document displays anything similar. Samuel Chyliński's translation of the Bible (1660), cited after Kavaliūnaitė [2008], for example, has an entirely different text in the two passages: teypag dwi lati, tempo te

There are good reasons for taking a closer look at this etymology. The first one is that it supposes a prepositional basis $*\bar{a}z$ - that has an equivalent in some Latvian dialects $(\bar{a}z)$, but remains otherwise entirely unknown to Lithuanian. The second problem is the meaning of the formation in $*-t\underline{i}o$ - or $*-t\underline{i}\bar{a}$ - applied to a prepositional basis. Both aspects require a precise analysis, which has not yet been done.

To begin with, it is necessary to remind that the preposition 'behind' may exhibit several forms in the Baltic languages, both in its prepositional

usage and in composition (verbal or nominal prefix). In Lithuanian, we find the following variants:

Table 1

Lithuanian	Initial vowel a-	Initial vowel u-	Initial vowel ú-	Initial vowel ø-
	àž	ùž	űž-	
Final -ž-	various dial. North, East, Belarus	ubiquitous	East Lith. dial. (as a nominal prefix)	
Final -žu-	ažù	užù		žù
	Old Lith.: Sirvydas	Old Lith.: Mažvydas, Bretkūnas, Morkūnas, Petkevičius, Klein		dial. Rodūnia (Belarus)
	ažúo-	užúo-		
Final -žuo-	East Lith. (as a nominal prefix)	ubiquitous (as a nominal prefix)		
Final -žū-	ažū-			
	East Lith. dial. (as a nominal prefix)			

Zigmas Zinkevičius [1966, 428; 1981: 189] writes that variants with initial a- are limited to the East Lithuanian dialects; in Old Lithuanian, $a\check{z}(u)$ - is sporadically found in Western Lithuanian (East Prussia) as well, which suggests that it was once more widely spread. The variation between initial a- and u- cannot be explained by regular phonetic change and it is better to assume that we are dealing with two originally distinct prepositions that eventually merged in the course of their history. This assumption is supported by the fact that some Old Lithuanian documents and some modern dialects use both variants ($a\check{z}$ and $u\check{z}$) side by side with

a difference of meaning. According to Zinkevičius [1966: 428], in East Lithuanian $a\check{z}$ covers the range of meanings of Standard Lithuanian $u\check{z}$ 'behind, beyond, after' (+ gen.), 'for' (+ acc.), whereas $u\check{z}$ corresponds to $a\tilde{n}t$ 'on' (+ gen.). It is therefore likely that there were originally two prepositions, * $a\check{z}u$ and * $u\check{z}u$ (or * $u\check{z}$ if * $u\check{z}u$ is taken for secondary after * $a\check{z}u$), and that their distinction was blurred in many Lithuanian dialects. The striking point, however, is that there is in Lithuanian no trace of a long vowel variant * $a\check{z}$ that could be the basis of the nominal form * $a\check{z}$ - $\check{c}ia$ - or * $a\check{z}$ - $\check{c}i\bar{a}$ apparently preserved in the Old Lithuanian locution $u\beta$ o $\beta cgiu$ 'on the back side'.

In Latvian, we find the following variants:

Table 2.

Latvian	Initial vowel a-	Initial vowel ā-	Initial vowel ai-	Initial vowel u-
	az	$\bar{a}z$	àiz	uz
Final -z-	various dial. 'behind', 'on' (Latgalian oz)	various dial. 'behind', 'on' (sometimes only as a nominal prefix)	ubiquitous 'behind'	dial. 'on', 'onto, to'
Latvian	Initial vowel ū-	Initial vowel uo-	Initial vowel i-	
	ūz-	uoz-	iz	
Final -z-	Old Latv. <i>uhs</i> dial. $\bar{u}z$ (as a nominal prefix)	Prussian Latvian	High Latv. dial. 'on', 'onto, to'	

As far as I can see, forms with an initial vowel u- (uz and its lengthened variants $\bar{u}z$ - and uoz-) and with an initial vowel i- (iz) are restricted to the meaning 'on, onto' and secondarily 'to, towards', whereas aiz and dial. az mean 'behind' and occasionally 'on, onto'. It is clear that we are

¹ Cf. Endzelin [DI, 1: 409–425 and 575–580 for *uz*, 541–548 for *aiz*; 1923: 485–489 for *aiz*, *az*, 507–508 for *iz*, 532–537 for *uz*].

dealing with two different prepositions, *a(i)z 'behind' on the one hand, and uz 'on' on the other hand, and that their merger did not reach the same stage as in Lithuanian.

The Old Prussian data are confused and uncertain. Three prepositions can be compared to Lith. $u\check{z}$, East Lith. $a\check{z}u$ and Latv. aiz:

- OPr. enfai = Germ. auff 'on' (III: 117_{23});
- OPr. effe = Germ. von, aus 'from, out of' analyzed by Vytautas Mažiulis [PKEŽ²: 187] as *aza < Common Baltic *aźō = East Lith. ažu;
- OPr. unfey = Germ. auff 'on' (III: 117_{23}) analyzed by Vytautas Mažiulis [PKEŽ²: 924] as a contamination of *en 'in' and *uz 'on'.

It seems to be the case that Old Prussian possessed both * $a\dot{z}\bar{o}$ (= East Lith. $a\dot{z}u$) in effe and * $u\dot{z}$ (= Lith. $\dot{u}\dot{z}$) in unfey, but their semantic relationships are far from clear: while unfey routinely means 'on', effe exhibits a completely unparalleled ablative meaning ('from, out of'). This difficulty is compounded by the fact that a contamination seems to have taken place with *en 'in' to explain the nasal in unfey (* $u\dot{z}$ + *en- > * $un\dot{z}$ -); the hapax enfai could be a mistake for *unfai (it comes after ften in III: 117_{23}). In addition, the endings of the different prepositions are unexplained: -ai, -ey is reminiscent of the adverbial ending -ai (cf. labbai 'well'), but the ending -e of effe (-a in affa in I and II) is obscure. And, last, but not least, we do not know how the meaning 'behind' was expressed in Old Prussian.

To sum up, it may be assumed that the Baltic languages inherited two different prepositions $*a\dot{z}\bar{o}$ 'behind' (= East Lith. $a\dot{z}u$) and $*u\dot{z}$ 'on' (= Lith. $u\dot{z}$, Latv. uz). Their distinction was lost, or at least blurred, in some dialects, and this merger may locally have had formal consequences: Old Lith. $u\dot{z}u$ (instead of $u\dot{z}$) was probably created after $a\dot{z}u$, and conversely Latv. dial. az (instead of *azu) may have been shaped after uz. It is possible that Latv. aiz results from a contamination of az with iz, whose vowel is not completely clear, however. The short form $z\dot{z}u$ (instead of $az\dot{z}u$) in the Lithuanian dialect of Rodūnia (Belarus) might be due to the influence of Slavic za.

In view of this, it is difficult to reconstruct a uniform prototype for all the forms mentioned above. The comparison with Slavic and

other Indo-European languages adds a greater level of complexity. Two Slavic prepositions may belong here: za 'behind, beyond, after, for' (Ru. za, Pol. za, etc.) and vbzb 'in return for, up, back' (Ru. vz(o)-, voz-'up, back', Pol. wz(e) 'up'). While the former might go back to Slavic * $z\bar{o}$, i.e. the same form as Baltic * $z\bar{o}$ 'behind', but without initial z-. the latter can reflect Slavic *uz', like Baltic *uz' 'on'. The apparent variation between Slavic * $z\bar{o}$ and Baltic * $az\bar{o}$ can hardly be explained in terms of PIE ablaut (zero grade vs full grade) and remains completely in the dark. A PIE prototype * $(He/o)g^hoH$ would fail to explain the vowel alternation, and the structure of the preposition would still be obscure. The other form, Balto-Slavic $*u\dot{z}$, could be traced back either to *(H)ud- \dot{g}^h - (with *ud- = Skt. $\dot{u}d$ 'up, away, out of', cf. Gk. ὕστερος, Skt. úttara- 'higher, later') or to *(H)up- g^h - (with *up- = Goth. uf 'on', cf. Hitt. $\bar{u}pp^{-zi}$ 'to come up'); Rick Derksen [EDSIL: 533] proposes reconstructing more directly Balto-Slavic *uź as *up-s (*up- + adverbial ending -s?) with generalization of the voiced sandhi variant, which is uncertain. Reinhold Trautmann [1923: 336] compares Lith. ùž and Slavic za with the Armenian polyfunctional preposition z- 'through' (+ acc.), 'about' (+ abl.), 'around' (+ instr.), 'against' (+ loc.), but this comparison, which goes back to Heinrich Hübschmann [1897: 446], is formally and semantically imprecise. The PIE prehistory of both * $(a)\dot{z}\bar{o}$ and * $u\dot{z}$ in Balto-Slavic remains unclear, but the only certainty is that the long vowel of Latvian $\bar{a}z$ and Old Lithuanian $o\beta c \gamma i u$ is unparalleled in Indo-European and should therefore be given an internal explanation in Baltic.

Taking the Old Lithuanian locution $u\beta$ $o\beta cziu$ at face value, $o\beta cziu$ is likely to reflect the genitive plural of a noun. But both the suffixation and the formation of this noun remain to be determined: a Baltic reconstruction $*\bar{a}\dot{z}$ -tja- or $*\bar{a}\dot{z}$ - $tj\bar{a}$ has to be motivated by formal and semantic parallels. The derivation of nominal forms from a prepositional basis by means of a suffix *-tja- or *- $tj\bar{a}$ is not unparalleled in Lithuanian, as shown by the following forms: ³

² Meanings are given after Derksen [EDSIL: 533, 540].

³ Cf. Skardžius [1943: 332]; Ambrazas [1993: 49].

- Lith. apačià 'lower parts, undersides' (e.g. fpod/fpodek cʒego/Ima fuperficies alicuius rei, pars inferior/Apaćia in Sirvydas, Dictionarium trium linguarum (ca 1643): 416 apud Kruopas [1979]) < Baltic *apa-tjā < PIE *(H)opo-tjeh2 (from PIE *(H)op- = Hitt. āppa 'after, behind');
- Lith. *įsčia* 'internal parts, womb, intestines' (e.g. nom. sg. *iʃcʒia* = Pol. *żywot* in Daukša, *Postilla Catholicka* (1599): 624₃₉ etc. *apud* Palionis [2000]) < Baltic **ins-tjā* (from the PIE preposition * h_1en , * h_1en = Gk. ėv 'in', Lat. in + adverbial -s as in Gk. εἰς 'into' < * h_1en -s);
- Lith. dial. *prieščia* 'part located at the front' LKŽ [10: 691] < Baltic **preis-tjā* (Lith. *priēš* 'before', from PIE **prei-s*);
- East Lith. dial. ažačià 'place located behind, backside' LKŽ [1: 533] < Baltic *aźa-tjā (East Lith. až(u) 'behind');</p>
- East Lith. dial. ažvačià 'place located behind, backside' LKŽ [1: 536] < Baltic *aźō-tjā (East Lith. až(u) 'behind');</p>
- Lith. dial. užačià 'remote corner' LKŽ [17: 586] < Baltic *uźa-tjā (Lith. ùž 'behind');</p>
- Lith. užuočià 'remote corner' (LKŽ [17: 729], e.g. uźźoćio 'in a remote corner', loc. sg. -io(je) in Daniel Klein, Naujos Giesmju Knygos: 474₆ apud Michelini [2003]) < Baltic *uźō-tjā (Lith. ùž 'behind');</p>
- Lith. pasčiūkos 'residue', f. pl. (LKŽ [9: 460]; ALEW [2: 737], e.g. Paβcʒúkos Grund=Suppe in Clavis Germanico-Lithuana 17th century: 817 apud Drotvinas [1995]), probably diminutive of a noun *pasčià < Baltic *pas-tjā (Lith. pàs 'near, by', compare Arcadian Greek πός 'towards' < PIE *pos and Lat. post 'after' < PIE *pos-ti).

Most of these derivatives are of feminine gender. The pattern [PREP] \rightarrow [PREP + FEM *- $tj\bar{a}$] is so widespread that one may reasonably surmise that the basis of the Old Lithuanian locution $u\beta$ $o\beta c_3i\mu$ is also a feminine

(plural) noun oščios 'back side, rear parts' (from Baltic * $\bar{a}\dot{z}$ - $tj\bar{a}$ -) rather than a masculine (plural) noun * $oš\check{c}iai$. There are parallels for the specialization to the plural, e.g. Lith. $\tilde{a}pa\check{c}ios$ 'residues (of potatoes)' LKŽ [1: 183] < 'what is left behind' beside the singular $apa\check{c}i\grave{a}$. Some of these derivatives are built on a preposition that is still in use in the language, e.g. Lith. $prie\check{s}\check{c}ia \leftarrow pri\check{e}\check{s}$ 'before', $u\check{z}a\check{c}i\grave{a}$ and $u\check{z}uo\check{c}i\grave{a} \leftarrow u\check{z}$ 'behind', East Lith. $a\check{z}a\check{c}i\grave{a} \leftarrow a\check{z}(u)$ 'behind', and, more remotely, $is\check{c}ia \leftarrow i$ 'into', but, in the case of $apa\check{c}i\grave{a}$ 'lower parts, undersides', the corresponding preposition *ap(a) was lost, probably due to the quasi-homonymy with $api\check{e}$ 'around'.

One form deserves special attention. According to the LKŽ [1: 337], in a few Lithuanian dialects (Biržai, Kriukai, north of Lithuania, close to the Latvian border), there is a compound $a\check{s}\check{c}iagalia\~i$ 'grain residues' (nom. pl.), corresponding to Lith. nuobiros, $gr\bar{u}dagalia\~i$. It seems to be based on a form * $a\check{s}\check{c}ias$ or * $a\check{s}\check{c}i\bar{a}$ 'residue, what is left behind', apparently from * $\check{a}\check{z}$ -tja- or * $\check{a}\check{z}$ - $tj\bar{a}$ - with short vowel (in comparison with the long vowel of * $\bar{a}\check{z}$ - $tj\bar{a}$ > Old Lith. * $o\check{s}\check{c}ios$). The status of this form is uncertain and the explanation of its first member given here is only a possibility among others.

The same pattern [PREP] \rightarrow [PREP + FEM *- $tj\bar{a}$] has existed in Latvian, and in some cases the correspondence with Lithuanian goes so far that one may assume a Common East Baltic formation:

- Latv. *apakša* 'lower part' ME [1: 73] < Baltic **apa-tjā* (with epenthetic -*k* in Latvian) < PIE *(*H*)*opo-tieh*² (from PIE *(*H*)*op* = Hitt. *āppa* 'after, behind');
- Latv. *ìekša* 'internal part, interior', pl. *ìekšas* 'intestines' ME [2: 30–31] < Baltic **en(s)-tjā* (with epenthetic -*k* in Latvian) < PIE **h₁en(s)-tieh₂* (from PIE **h₁en* = Gk. *èv* 'in', Lat. *in*);
- Latv. *prìekša* 'place located before' ME [3: 393] < Baltic **prei̇-tjā* (with epenthetic *-k-* in Latvian) < PIE **prei̇-tieh*² (from PIE **prei̇*).

Some of these nouns are used regularly, or even predominantly, in the locative as adverbs or secondary prepositions, e.g. Latv. $iek\bar{s}a$ 'internal part, interior' $\rightarrow iek\bar{s}a$ 'within, inside' (loc. sg., ME [2: 31]), Latv. $priek\bar{s}a$

'place located before' $\rightarrow priek\bar{s}\bar{a}$ 'before, in presence' (loc. sg., ME [3: 394]). Sometimes, the noun has disappeared and is preserved only indirectly through its frozen locative: a noun *beša 'lack' (< *be-tj \bar{a} , from be 'without' + feminine suffix -tj \bar{a}) 4 may be inferred from the locative beš \bar{a} 'without' (adverb, ME [1: 281]).

In Old Prussian, the pattern [PREP] \rightarrow [PREP + FEM *- $tj\bar{a}$] is not clearly attested as such, but an equivalent of Lith. *isčia* 'womb, intestines', Latv. *iekša* 'internal part, interior', pl. *iekšas* 'intestines' might be reflected by OPr. *inxcze* 'kidney' (EV: 128, Germ. *Niere*).

The Old Lithuanian locution $u\beta$ $o\beta c3i\eta$ 'on the back side' is thus likely to be based on a feminine noun * $os\check{c}ios$ 'back side, rear parts' (from Baltic * $\bar{a}\dot{z}$ - $tj\bar{a}$ -). The derivation of a feminine noun in * $-t\underline{i}eh_2$ on a prepositional basis is probably a secondary formation. There was in Indo-European an adjectival suffix * $-t\underline{i}o$ - which served to derive adjectives from prepositions or adverbs. The most widespread adjective of this type is PIE *ni- $t\underline{i}o$ -(Skt. nitya- 'own, familiar', Goth. nibjis 'relative, parent, cognate', Gall. Nitio-broges name of a tribe) from PIE *ni 'down' (Skt. ni). Another archaic formation is PIE *(H)op- $t\underline{i}o$ - (Skt. $apty\acute{a}$ - 'located outside', Hitt. $appezzi\underline{i}a$ -'later, last' with -e- by anaptyxis or by analogy to the antonym $hantezzi\underline{i}a$ -'located at the front') from *(H)op- (Hitt. appa 'after, behind'). On account of its meaning, the Sanskrit substantivized neuter apatyam 'offspring' is likely to reflect another formation PIE * h_2epo - $t\underline{i}o$ - from * h_2epo - (cf. Gk. $a\pi o$ 'from'). Many of these adjectives are reflected in Ancient Greek, either directly (a) or through substantivized forms (b) or through adverbs (c):

(a) Ancient Greek adjectives:

— περισσός 'excessive, superfluous' < PIE *peri-tio- 'located above' (from PIE *peri, Gk. περί 'around, above', Skt. pári 'above'); alternatively, περισσός could reflect PIE *peri-k-jo- with a velar (cf. adv. πέριξ 'around');</p>

⁴ In Latvian the preposition *be* 'without' is usually replaced by the Slavic loanword *bez*.

⁵ See Oettinger [1995], who reconstructs $*h_2op$ -tio-.

— ὕπτιος 'laid on one's back' < PIE *up-tio- 'located under' (from PIE *up, Gk. ὑπό 'under', Skt. úpa 'under'); the lack of assibilation is unexplained.</p>

(b) Ancient Greek nouns:

- Ἄμφισσα place name (near Delphi), perhaps from an adjective *ἄμφισσος < PIE *h₂embʰi-tio- 'located around' (from PIE *h₂(e)mbʰi, Gk. ἀμφί 'around', Lat. ambi- 'from both sides, around', Skt. abhi); note, however, that Ἄμφισσα with short -ἄ cannot be the direct reflex of the feminine of *ἄμφισσος (this would be *ἀμφίσσα); alternatively -σσα could reflect a Prehellenic suffix;</p>
- Ἄντισσα place name (near Lesbos), perhaps from an adjective *ἄντισσος < PIE *h₂enti-tio- 'located in front' (from PIE *h₂enti, Gk. ἀντί 'in front of', 'for', Skt. ánti 'in front', Lat. ante 'before', Hitt. ħanti 'in front'); note, however, that Ἄντισσα with short -ἄ cannot be the direct reflex of the feminine of *ἄντισσος (this would be *ἀντίσσᾱ); alternatively -σσα could reflect a Prehellenic suffix;</p>
- ἔπισσαι 'younger daughters' (Hecataeus) from an adjective *ἔπισσος (still reflected in Hesychius: ἔπισσον· τὸ ὕστερον γενόμενον) < PIE *h₁epi-tio- 'located after' (from PIE *h₁epi, Gk. ἐπί 'on', Skt. ápi 'on', Arm. ew 'and, in addition');</p>
- μέτασσαι 'lambs that are born later' (Od. 9, 221) from an adjective *μέτασσος (still reflected in H. Hermes 125: n. pl. μέτασσα used adverbially 'afterwards') < PIE *meth₂-tio- 'located after' (from PIE *meth₂, Gk. μετά 'after', Goth. miþ 'with').

(c) Ancient Greek adverbs:

— εἴσω adv. 'into', probably the adverbial instrumental of a substantivized adjective *εῖσσος < PIE * h_1en -tio- 'located inside, within' (from PIE * h_1en , Gk. ἐν 'in'); alternatively, εἴσω could be built directly on εἰς 'into' (< PIE * h_1en -s) + adverbial ending -ω (like ἄνω 'upwards');

- ἔξω adv. 'out', probably the adverbial instrumental of a substantivized adjective *ἔξος < PIE *h₁egh-tio- 'located inside, within' (from PIE *h₁egh, Gk. ἐκ 'out'); alternatively, ἔξω could be built directly on ἐξ 'out' (< PIE *h₁egh-s) + adverbial ending -ω (like ἄνω 'upwards') or even simply by analogy to εἴσω;</p>
- ὀπί(σ)σω adv. 'behind, back', probably the adverbial instrumental of a substantivized adjective *ὅπισσος < PIE * h_1 opi-tio- 'located behind' (from PIE * h_1 opi, Myc. opi- 'on', Lat. ob 'towards, to, on account of');
- πρό(σ)σω adv. 'forwards, onwards', probably the adverbial instrumental of a substantivized adjective *πρό(σ)σος < PIE *pro-tio'located before' (from PIE *pro, Gk. πρό 'before', Skt. prá 'before', Lat. pro 'before').

Further vestiges of the same formation are found in other Indo-European languages:

- OCS *ništь* 'beggar' (< PIE **nīs-tio-*, cf. **nī-s*, the formation being parallel to that of Skt. *niṣṭya-* 'external, foreign');
- OCS *obъštъ* 'common' (< PIE * h_3eb^hi -tio-, cf. * h_3eb^hi 'about', OCS o);
- Lat. *propitius* 'favorable, propitious' (< PIE **propo-tiio*-, cf. Lat. *prope* 'near' < PIE **propo*, dissimilated from **pro-pro*)⁶
- Goth. *auþs* (*auþeis*) 'desert' (< PIE * h_2eu -tiio-, cf. adverb * h_2eu 'away', OPr. au-, OCS u-);
- Goth. framapeis 'foreign', OHG fremadi, Germ. fremd (< PIE *promo-tijos, cf. Goth. fram 'from').

⁶ Cf. Dunkel [1980], accepted by de Vaan [*EDL*: 492]. Alternatively, but less likely, Lat. *propitius* could reflect a compound **pro-pet-* (from *petō* 'to strive for, to seek', cf. *praepes* 'flying swiftly'), cf. DELL [539].

and, last but not least, probably:

— Lith. *svēčias* 'guest' < 'foreign', Latv. *svešs* 'foreign, strange' (< PIE **sue-tio-*, cf. the reflexive particle **sue* 'own, apart').

The prehistory of the PIE suffix *-tio- is obscure, but its diffusion testifies to its antiquity beyond any doubt. In Baltic, adjectives of this formation are extremely rare: apart from Lith. svēčias 'foreign, guest', which has its own history, one could perhaps mention Lith. dial. užuočias 'concealed, secret' < 'located behind' LKŽ [17: 729], but this might rather be a secondary back-formation based on the more common noun užuočià 'remote corner' (loc. užuočiojè 'in a remote corner'). The first member of Lith. dial. aščiagaliai 'grain residues' is unclear. There is no uncontroversial evidence for adjectives in *-tja- (< PIE *-tio-) in Baltic, where this formation survives almost exclusively through substantivized feminines in *-tjā (< PIE *-tieh2). To this formation belongs in Old Lithuanian the feminine plural *oščios 'back side, rear parts' (from *āź-tjā-).

The last point I have to clarify is the form of the first member of $*\bar{a}\dot{z}$ - $tj\bar{a}$ -. As already mentioned, the preposition 'behind' exhibits a great diversity of forms in Lithuanian ($az\dot{u}$, $az\dot{u}$, $uz\dot{u}$, $uz\dot{u}$, $az\dot{u}$, $uz\dot{u}$, $az\dot{u}$, $uz\dot{u}$, addiventions and Latvian (az, az, aiz, a

preposition [nuõ] ≠ verbal prefix [nu-] ≠ nominal prefix [nuo-]

The distribution of these three degrees was described in Petit [2011] and their origin was clarified by Le Feuvre [2011]. For the present purpose, it suffices to provide an overview of the variations attested in Lithuanian:

Table 3

Lithuanian	Preposition	Verbal prefix	Nominal prefix	Examples
Type 1.	añt/ùž	ùž-	añt-	užplū́sti 'to flood, to inundate'/ añtplūdis 'flow, influx, crowd'
Suppletion	sù	sù-	sám-, sán-, sá-	sujùngti 'to connect, to link up'/sájunga 'union, alliance'
Type 2	Ĩ	ĩ-	į́-	inèšti 'to bring in' (į-neša)/ inašas 'contribution'
Type 2. Metatony	per̃	pér-	pér-	pértraukti 'to break, to interrupt'/pértrauka 'break, interruption'
Type 3. Formal variation	ĩ	Ĩ-	iñ-	įtekė́ti 'to flow (into)' (į̃teka)/ iñtakas 'affluent'
Type 4.	ùž	ùž-	užúo-	užmėgzti 'to knot, to start' (ùžmezga) / užúomazga 'plot, embryo, rudiment'
Addition of a syllable		at(i)-	atã- or ató-	atskaitýti 'to deduct, to count off' / atãskaita 'account' atslúgti 'to fall off, to fall away' / atóslūgis 'ebb, low tide'
	nuõ	nù-	núo-	nutekéti 'to flow down' (nùteka)/núotakas 'basin, drain, gutter, sewer'
Type 5a. Metatony	priẽ	prì-	prie-	pritarii 'to approve' (pritaria)/ prietaras 'superstition, prejudice'
+ Formal variation	põ	pà-	pó-	pasùkti 'to turn, to swing' (pàsuka)/pósūkis 'turn, turning, turning point'
	prõ	prà-	pró-	praskinti 'to clear away' (pràskina) / próskyna 'opening, cutting (in a forest), clearing'

Lithuanian	Prepo- sition	Verbal prefix	Nominal prefix	Examples
Type 5b. Metatony + Formal variation	põ prõ	pà- prà-	pã- prã-	pažadéti 'to promise' (pàžada)/ pãžadas 'promise' pranèšti 'to announce' (pràneša)/prãnašas 'precursor, herald, harbinger, prophet'
Type 5c. Metatony + Formal variation	apiẽ	ap(i)-	apý-	apibrėžti 'to delineate'/ apýbraiža 'outline, contour, sketch'
Type 6. No distinction	ìš	iš-	iš-	išréikšti 'to express'/išraiška 'expression'

and Latvian:

Table 4

Latvian	Prepo- sition	Verbal prefix	Nominal prefix	Examples
True 1	nùo	nùo-	nuõ-	nùodalît 'to separate, to fence off' / nuõdaļa 'department, section, chapter'
Type 1. Metatony	pìe	pìe-	piẽ-	<i>pìedegt</i> 'to burn' / <i>piēdęgas</i> 'burns'
		ìe-	iẽ-	<i>ìekaût</i> 'to forge' / <i>iẽkava</i> 'instrument for forging'
Type 2	pa	pa-	ра-	pagulêt 'to take a nap'/paguļa 'nap, short sleep'
Type 2. No distinction	sa	sa-	sa-	sajust 'to feel'/sajùta 'sense, sensation'

Some of the variations observed in the preposition 'behind' can receive an explanation within this system. For example, $a\check{z}\acute{u}o$ -, $a\check{z}\bar{u}$ - and $u\check{z}\acute{u}o$ - in Lithuanian, $\bar{a}z$ - and $\bar{u}z$ - in Latvian are limited to the function

of a nominal prefix. Descriptively, the variation of the nominal prefix can take on four main forms:

- Type (a). Metatony: e.g. Lith. $i-ne\check{s}ti$, $\tilde{i}-ne\check{s}a$ 'to bring in' $\rightarrow i-na\check{s}as$ 'contribution';
- Type (b). Lengthening: e.g. Lith. pa-sùkti, $p\grave{a}-suka$ 'to turn, to swing' $\rightarrow p\acute{o}-s\bar{u}kis$ 'turn, turning, turning point';
- Type (c). Diphthongization: e.g. Lith. nu-tekéti, nù-teka 'to flow down' → núo-takas 'basin, drain, gutter, sewer';
- Type (d). Addition of an extra syllable: e.g. Lith. už-mègzti, ùž-mezga 'to knot, to start' → užúo-mazga 'plot, embryo, rudiment'.

The different realizations of the system may lead to secondary analogies: Lith. $a\check{z}\grave{u} \rightarrow a\check{z}\acute{u}o$ - (type c. diphthongization) may be locally replaced by $a\check{z}\grave{u} \rightarrow a\check{z}\acute{u}$ - (type b. lengthening), and likewise in Latvian we can find $az \rightarrow \bar{a}z$, $uz \rightarrow \bar{u}z$ (type b. lengthening). It is not necessary to go into the details of these variations nor to weigh up in individual cases which variation is original, which one is secondary. Suffice it to say that types (a), (b) and (c) are likely to form the core of the system, with (a) limited to the case when the basis is already a long vowel or a diphthong, and (b) resp. (c) formed from short vowels. Type (d) is generally a secondary evolution of (b) and (c) after the loss of a final syllable. The position of the preposition may vary: it can agree with the verbal prefix (e.g. Lith. $\dot{u}\dot{z}$ = verbal prefix $\dot{u}\dot{z}$ - \neq nominal prefix $u\dot{z}\dot{u}o$ -) or it can remain isolated on its own (e.g. Lith. $nu\tilde{o} \neq \text{verbal prefix } nu$ -, $n\dot{u}$ - $\neq \text{nominal prefix } nu\acute{o}$ -). The important point is that most of these variations can receive an internal explanation in Baltic in terms of paradigmatic analogy. In the case of $*a\dot{z}\bar{o}$ and $*u\dot{z}$, one can reconstruct the following possibilities:

- Lith. $a\check{z}\grave{u} \rightarrow a\check{z}\acute{u}o$ (type c);
- Lith. $a\check{z}\grave{u} \rightarrow a\check{z}\acute{u}$ (type b);
- Lith. $\grave{a}\check{z} \to *\bar{a}\check{z}$ (type b) in Old Lith. $*o\check{s}\check{c}ios$ ($<*\bar{a}\acute{z}$ - $tj\bar{a}$ -);
- Lith. $\grave{a}\check{z} \to *a\check{z}$ (no variation) in Lith. dial. $a\check{s}\check{c}iagalia\tilde{\imath}$ ($<*\check{a}\acute{z}$ - $tj\bar{a}$ -);

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— Lith. u\check{z}\grave{u} \to u\check{z}\acute{u}o- (type c) or \grave{u}\check{z} \to u\check{z}\acute{u}o- (type d);

— Latv. az \to \bar{a}z- (type b);

— Latv. uz \to \bar{u}z- (type b).
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One may note that type (b) (lengthening) may be applied either to the final vowel of a dissyllabic basis (e.g. Lith. $a\check{z}\grave{u} \to a\check{z}\check{u}$ -) or to the unique vowel of a monosyllabic basis (Latv. $az \to \bar{a}z$ -) alike, which shows that it remained productive at different stages of development. In view of this, the Old Lithuanian derivative *oščios 'backside' (in the locution $u\beta$ o $\beta cziu$ 'on the back side') may reflect an allomorphic variation of the type Lith. $a\check{z} \to *\bar{a}\check{z}$ - (type b), which is as such not attested for this basis in Lithuanian, but has good parallels within the language (e.g. Lith. $p\check{a} \to *p\bar{a}$ -, Lith. $p\acute{o}$ -). Strikingly enough, the same basis ('behind') may exhibit various allomorphs in the formation of the secondary derivative in *-tja-or *-tj\bar{a}:

— Lith. $a\check{z} \to a\check{z}a$ - (East Lith. dial. $a\check{z}a\check{c}i\grave{a}$); Lith. $a\check{z} \to a\check{z}uo$ - (East Lith. dial. $a\check{z}va\check{c}i\grave{a}$); Lith. $u\check{z} \to u\check{z}a$ - (Lith. dial. $u\check{z}a\check{c}i\grave{a}$); Lith. $u\check{z} \to u\check{z}uo$ - (Lith. $u\check{z}uo\check{c}i\grave{a}$); Lith. $a\check{z} \to \bar{a}\check{z}$ - (Old Lith. *oščios in $u\beta$ o $\beta c 3iu$); Lith. $a\check{z} \to a\check{z}$ - (Lith. dial. $a\check{s}\check{c}iagalia\check{a}$).

No doubt that some of these variations can be of secondary origin: Lith. $a\check{z} \to a\check{z}a$ - (East Lith. dial. $a\check{z}a\check{c}i\grave{a}$) and Lith. $u\check{z} \to u\check{z}a$ - (Lith. dial. $u\check{z}a\check{c}i\grave{a}$), for example, might have been influenced by the parallel formation of Lith. $apa\check{c}i\grave{a}$ (ap-a-). Similarly, the pattern $a\check{z} \to \bar{a}\check{z}$ - reflected by Old Lith. *oščios might owe its existence to the parallel pattern of Lith. $pa \to p\bar{a}$ - (Lith. po-), independently of the similar formation $az \to \bar{a}z$ -found in Latvian for the same reasons. It is almost by accident that this residual possibility was preserved by Jonas Bretkūnas, barely recognizable, in the frozen locution $u\beta$ o $\beta cziu$ on the back side'. A precise mapping of these variations remains to be done to determine not only dialectal patterns of diffusion, but also the position of each allomorph in the morphological system. It has to be noted that nominal prefixes occupy a unique position, regularly distinguished from the corresponding prepositions and verbal prefixes, but at the same time the formation of a noun

on a prepositional basis such as $*\bar{a}\dot{z}$ - $tj\bar{a}$ - 'back side' (< 'what is behind') seems to be caught between two conflicting pressures, that of the prepositional basis it is derived from and that of the process of nominalization to which it is subject.

Abbreviations

1, 2, 3—1st, 2nd, 3rd person; abl. — ablative; acc. — accusative; du. — dual; f. — feminine; gen. — genitive; ind. — indicative; loc. — locative; m. — masculine; n. — neuter; nom. — nominative; pl. — plural; prep. — preposition; prs. — present; pst. — past; sg. — singular.

Arm. — Armenian; Gall. — Gallic; Germ. — German; Gk. — Greek; Goth. — Gothic; Hitt. — Hittite; Lat. — Latin; Latv. — Latvian; Lith. — Lithuanian; Myc. — Mycenaean; OCS — Old Church Slavic; OHG — Old High German; OPr. — Old Prussian; PIE — Proto-Indo-European; Pol. — Polish; Ru. — Russian; Skt. — Sanskrit.

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