

Lithuanian and Indo-European Phonological Parallels

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It is proposed that the monophthongizations characteristic of Lithuanian dialects (and of many other languages) are a kind of repetition of monophthongizations which took place within Indo-European. Similarly to the 'impure' diphthongs of modern Lithuanian the old Indo-European sequences of vowel plus nasal or liquid were also treated as diphthongs.

In a recent article (Schmalstieg 2000) I have tried to show how the syntax of contemporary Lithuanian may shed light on the internal development of Indo-European. In this article I hope to show how Lithuanian phonology can give us a clue as to the internal phonological history of the common Indo-European language.

It is well known that linguistic changes tend to be repeated in the course of time. A well known example of this is the recurring palatalizations of velars in Slavic. Here I plan to consider certain of the monophthongizations which I have assumed for the common Indo-European proto-language and which are known to have been repeated in the history of the Baltic and many other languages. In fact, Antkowski (1956: 50) wrote that the process of monophthongization of diphthongs was a process existing in the history of all the Indo-European languages. I should like to suggest here that the recorded history of Lithuanian in comparison with that of several other Indo-European languages can give us an insight into a possible internal reconstruction of the Proto-Indo-European language.

Zinkevičius (1966: 92) notes that the Eastern High Lithuanian Panevėžiškiai in final circumflex and unstressed position change *ai*, *ei*, *au* respectively into the monophthongs ε , e , υ (or in places φ). Thus, e.g., in Biržai, for *rañkai* we encounter the dat./loc. sg. *ruñ-ke* '(to the, in the) hand', for *drobei* we encounter dat./loc. sg. *dró-b'ę* '(to the, in the) linen', for *turgaus* we encounter gen. sg. *tuř-gos* '(of the) market'. One can compare the Latvian Tāhmian dialect monophthongizations reported by Rudzīte (1963: 166): *mēt²* < *meita* 'daughter, girl' and *lōks* < *lauks* 'field'.

Examples of the monophthongization of *ai* to *e* and *au* to *o* are encountered in Tocharian A (as opposed to the original diphthong retained in Tocharian B): (A) *neñci* 'certainly' = (B) *nai* 'well, yes'; (A) *we* (fem.) 'two' = (B) *wai* 'and' < Indo-European **duai* (Van Windekens 1976: 30). Compare also Tocharian A *olar* with Tocharian B *aulāre* 'companion, comrade' (Van Windekens 1976: 32). In Vulgar Latin an original

Latin *ae* (older *ai*) merges with an earlier short *e* attested, e.g., in Pompeian inscriptions; cf. the 2nd sg. pres. *queris*, 2nd pl. pres. *querite* beside classical *quaero* 'I seek' (earlier *qvairo*) (see Rohlfs 1970: 24). Compare also Lat. *causa* 'cause, reason' which becomes French *chose* 'thing'. Ancient Greek *ἄλ* 'yea, verily' is pronounced in Modern Greek as [né]. When Gothic orthographic *ai* is derived from Indo-European **ai*, **oi* or **ɔi* many scholars would ascribe to it a pronunciation \bar{a} , e.g., in the dat. sg. *gib-ai* '(to the) gift' and in the infinitive *laisjan* 'to teach' (Braune & Ebbinghaus 1981: 29-30). In certain environments this diphthong is monophthongized in Old High German also, e.g., before *-r* in OHG *lēren* 'to teach', cf. Gothic *laisjan* (Braune & Eggers 1975: 42). Similarly the Gothic orthographic sequence *au* is usually interpreted as a long open *o*-sound (Braune & Ebbinghaus 1981: 33-34). Germanic *au* is frequently rendered by Old High German long \bar{o} , e.g., *hōh* 'high' beside Goth. *háuhs* (Braune & Eggers 1975: 45).

The Slavic merger of Indo-European **oi* and **ai* with **ē* and eventual passage to *ě* is well known, cf. OCS dat./loc. sg. *ръс-ě* '(to the, in the) hand' which can be compared with standard Lith. *rañk-ai* and dialect (see above) *ruj-k-ε* with a parallel, but later monophthongization. Similarly the Slavic passage of **au* and **ou* to *u* is well known, cf. the **-u* stem gen. sg. *med-u* '(of the) honey'.

Indo-European **ai*, **ei* and **oi* all merged as **ē* in Sanskrit, thus, e.g., from Indo-European **uoid-* we have Skt. *ved-a* 'I know' beside ancient Greek $\omicron\dot{\iota}\delta\alpha$, Goth. *wait*. Similarly Indo-European **au*, **eu* and **ou* all merged as **ō* in Sanskrit, cf. the **-u* stem gen. sg. *madh-o-h* '(of the) honey'. One can compare the Sanskrit **-u* stem genitive singular ending *-oh* with the Lithuanian dialect **-u* stem genitive singular ending *-os* and the Gothic **-u* stem genitive singular ending *-aus* (where the sequence *-au-* is pronounced as a long open *o*-sound).

But these more or less natural phonological processes are not by any means limited to the Indo-European languages. Thus, for example, the Classical Arabic koiné diphthongs /ay/ and /aw/ retained in the Zahle dialect are monophthongized to /e:/ and /o:/ respectively in many dialects. For example, we encounter in Zahle /bayt/ 'house' and /lawn/ 'color' vs. /be:t/ and /lo:n/ respectively in Tyre, Sidon and Beirut (Cadora 1979: 19).

In fact, if one believes in linguistic universals, one would certainly say that monophthongization is a linguistic universal. If a language has a sufficiently long recorded history, it seems likely that a monophthongization will be encountered. Therefore I would find it surprising if in the history of Indo-European there had not been any monophthongizations. But since the reconstruction of monophthongizations in Indo-European is internal reconstruction of a language which is itself already reconstructed, the evidence is likely to be small and difficult to interpret. One obvious reason for the difficulty in the reconstruction of monophthongs is that according to the theory there would be no diphthongs left in tautosyllabic position. Therefore the phonological evidence must come from morphemes which may occur alternatively in pre-consonantal and pre-vocalic position such that the second element of the original diphthong may sometimes be rendered by a corresponding consonant, i.e., /i/ by /j/ or /j/, /u/ by /ɥ/ or /v/, etc. If an etymological prevocalic variant of the original diphthong

is lacking, there can be no attested phonological evidence at all for an original diphthong.

Thus, I propose that the Indo-European root **doǵ-* 'to give' in pre-consonantal position passed to **dō-* > Lith. inf. *dúo-ti*, Gk. 1st sg. pres. (δῖ)-δω-μι, Skt. (dá)-dā-mi 'I give' (see Schmalstieg 1980: 150-157). The reflex of the old pre-vocalic form **doǵ-* is encountered, however, in Lith. *dāv-ė* 'gave', the Greek Cypriote infinitive δοφεναι 'to give' and the Umbrian 3rd sg. imperative (*pur*)do-vi-t(u) = Lat. *perricito* 'may he sacrifice' (see Schmalstieg 1980: 151-157). Obviously, if there had been no prevocalic occurrences of etymological **doǵ-*, there would have been no way to reconstruct the diphthong, since all the pre-consonantal reflexes would be **-ō-*.

Furthermore, in my view, contamination and remodeling of various ablaut forms of the same root **dō-*, **doǵ-*, **dǵ-* are encountered in the numeral **dǵō* 'two' (cf. Lat. *duo*, Gk. δύω, Lith. *dù*, Slavic *dъva*) and **dǵōǵ-* (cf. Skt. *dva-u*). The verb derived from **doǵ-* 'two' originally had the meaning 'to make into two, to divide' which led to the notion 'to share'. For example, the English expression 'to share something with somebody' can mean 'to give a portion of something to someone'. The meaning 'to divide, to halve (this for someone)' came to mean then 'to give (this to someone)' (Schmalstieg 1987: 17).

A reasonable question arises: If the etymological Indo-European diphthongs were all monophthongized in closed syllables, what is the origin of the attested diphthongs in closed syllables? I propose that new closed syllables arose in Indo-European when an original unstressed vowel was lost in certain sequences. Thus, for example, the Indo-European sequence encountered in the **-u* stem genitive singular ending **(medh)-ous* (cf. Lith. *medaūs* '[of the] honey') had the form **-óuos*, with the stress occurring on the first syllable of the ending and loss of the second vowel. The etymological Proto-Indo-European **-u* stem genitive singular ending could also occur, however, as **-ouós* or as root stressed **-ouos* (i.e., without any stress on the ending) in which case the outcome is **-uos*. In later times for **-u* stem nouns the ending **-ous* was for the most part generalized and original **-uos* was for the most part lost. Nevertheless reflexes of both of these *-u* stem genitive singular endings are attested in Sanskrit. According to Macdonell (1968: 296, fn. 7), in the Rig Veda the *-u* stem gen. sg. *mádh-vas* (in my view from **[medh]-uos* < **[médh]-ouos*) occurs 67 times and *mádh-os* (= Lith. *med-aūs*, Slavic *med-u*, in my view from **[medh]-ous* < **[medh]-óuos*) occurs 13 times.

Evidence for the creation of diphthongs comes also from related roots, one of which has the root vowel after the sonant and the second of which has the root vowel before the sonant. Thus with the root vowel after the sonant *ǵ* the nom. sg. Skt. *dyáuh* 'day, heaven' and Gk. Ζεύς are derived from **dǵēǵ-* according to Thumb-Hauschild (1959: 73). The form **dǵēǵ-* in turn could be derived from earlier Indo-European **deǵéǵ(o)-s*. Another form of the same root with the root vowel before the sonant *ǵ* is represented in OP *deiws* 'god', Lat. *deus*, Lith. *diēvas*, Skt. *deváh*, etc. < **deǵiǵ-(ó)-s* or **deǵiǵ(o)-s* < Proto-Indo-European **deǵēǵ(ó)-s* or **deǵēǵ(o)-s*.

The situation is somewhat similar to the Slavic situation with the loss of the jers, except that in Slavic when the jer is lost the preceding sonant may not become a vowel,

cf., e.g., Modern Russian (gen. sg.) *bojca* ‘(of the) fighter’ < **bojъca*, or *ovca* ‘sheep’ < Old Russian *ovъca*, although in modern Slovene and Ukrainian -v- before a consonant may be pronounced somewhat like the English -w-.

In my view the treatment of vowels followed by nasals in closed syllables in Indo-European can be compared in some respects to the treatment of similar sequences in Lithuanian. In other words the Indo-European sequences with vowel plus *-n-, *-m-, *-l-, *-r plus consonant were ‘impure’ diphthongs just as they are in modern Lithuanian. In standard Lithuanian in word-final position and in tautosyllabic position before a spirant a short vowel plus -n(-) is lengthened and the nasalization is lost, e.g., acc. sg. *diēva* ‘god’ and 3rd pres. *gēsta* ‘goes out, is extinguished’. Note, however, the analogical restoration of this sequence in the future conjugation in standard Lithuanian where we have, e.g., *gyvėnsiu* ‘I shall live’ etc.

I propose then that during the internal history of Indo-European a short vowel plus *-N- ($N = m$ or n) in tautosyllabic position always passed to a long vowel, probably by way of a long nasal vowel with later loss of the nasalization, e.g., *-oNC ($C =$ any consonant) > * $\bar{o}C$ > *- $\bar{o}C$. In word-final position, however, either because of accentual considerations or because the following word may have begun with either a consonant or a vowel, there developed variants having either a long vowel or a short vowel plus nasal consonant. Thus word-final *-oN could become either *- \bar{o} (perhaps if it was unstressed or perhaps if the following word began with a consonant) or remain as *-oN (perhaps if it was stressed or perhaps if the following word began with a vowel).

I give here two examples of the morphologization of the original automatic alternation between *-oN and *- \bar{o} in the attested Indo-European languages. I have in mind the difference between the secondary 1st sg. ending *-om attested in Lat. *sum* < **e-sóm*, the 1st sg. imperfect Gk. *ἔφερον*, Skt. *ábhar-am* ‘I carried’ and the primary 1st sg. ending *- \bar{o} attested in the 1st sg. present Lat. *fer-o*, Gk. *φέρω*, Skt. *bhár-ā-mi* (with secondary addition of the athematic ending -*mi*) and Lith. *neš-ù* ‘I carry’ (see Schmalstieg 1980: 41; 1998). Many Indo-Europeanists derive the primary 1st sg. ending *- \bar{o} from a vowel plus laryngeal sequence and cite as evidence the Hittite 1st singular endings (2nd conjugation) -*ah-ḫi* and (mediopassive) -*ah-ḫa*, but in the attested non-Anatolian Indo-European languages the ending *- \bar{o} is encountered in the active voice of the verb whereas in Hittite the 1st sg. ending -*ah-ḫa* is encountered in the mediopassive conjugation. The meaning of the -*ah-ḫi* conjugation is not clear and typically no explanation is given as to exactly how -*ah-ḫi* could pass to *- \bar{o} . Consequently I consider a derivation of the primary 1st sg. ending *- \bar{o} from the secondary *-oN much more likely than from a vowel plus laryngeal.

Reflexes of word-final *-oN and *- \bar{o} are also encountered in the *-o stem dative singular pronominal and nominal endings, cf. the etymological definite forms Lith. *t-am-(ui)*, Slavic *t-om-u* where the etymological *-om- is protected by the following vowel of the final member of the definite pronoun. The etymological *- \bar{o} is represented in the nominal *-o stem dat. sg. Lat. *lup-ō*, Skt. *vr̥kāya* (with secondary addition of the element -*ya*), Gk. *λύκω*, Lith. *vil̥k-ui* ‘(to the) wolf’ (with later analogical addition of *-i in Greek and Lithuanian). Further examples of this alternation are given in Schmalstieg (1980: 41-42).

The co-existence of a simple word-final vowel alternating with a sequence of word-final vowel followed by a nasal would have a partial parallel in the situation described by Zinkevičius (1966: 77) for certain western Lithuanian dialects (Klaipėda, etc.) in which the genitive plural ending has the variants: *šàk-ũ-n* or *šàk-ũ* '(of the) branches' (the latter form without the final nasal). According to Zinkevičius, perhaps under the influence of the root-stressed type the second variant is more characteristic of the younger generation and in places in the east has completely ousted the first variant. There is even a third variant with a final *-m*, *šàk-ũ-m*, which is assumed to be a result of the generalization of the form which occurred before a following labial. Zinkevičius (1966: 76) notes the Samogitian doublets of standard Lith. *skūsti* 'to complain' and *līsti* 'to crawl' which are optionally *skū.ńćti* or *skū.śti* or *lī.ń.ćti* or *lī.śti*.

The morphologization of original automatic variants **-oN* and **-ō* conditioned by phonological environments has a partial parallel in the history of English. In contemporary American English the use of the forms of the indefinite article *a* and *an* is conditioned purely automatically by the nature of the initial phoneme of the following word, e.g., *a book*, but *an apple*. In a similar way the difference between *my* and *mine* was originally also quite automatic, but nowadays this originally phonologically conditioned difference has taken on morphological significance, and in modern standard English *my* is only a possessive adjective and *mine* is only a possessive pronoun. Today one would say only *my book (apple)* or *the book (apple) is mine* without regard to the etymological phonological conditioning (see Strang 1970: 198).

I hope to have suggested here that the recurring nature of linguistic change makes it probable that, as in Lithuanian, there occurred in the internal history of Indo-European monophthongizations of the 'pure' and 'impure' diphthongs. For most Indo-European languages monophthongization is a common recurring phenomenon, much more common than the loss of some putative laryngeals.

REFERENCES

- ANTKOWSKI, F. 1956: *La chronologie de la monophthongaison des diphtongues dans les langues indo-européennes*. Poznań: Państwowe Wydawnictwo Naukowe.
- BRAUNE, W., EBBINGHAUS, E. 1981: *Gotische Grammatik*, Tübingen: Max Niemeyer Verlag.
- BRAUNE, W., EGGERS, H. 1975: *Althochdeutsche Grammatik*, Tübingen: Max Niemeyer Verlag.
- CADORA, F.J. 1979: *Interdialectal lexical compatibility in Arabic*, Leiden: E. J. Brill.
- MACDONELL, A.A. 1968: *Vedic grammar*, Varanasi-Delhi: Indological Book House.
- ROHLFS, G. 1970: *From Vulgar Latin to Old French: An introduction to the study of the Old French language*. Transl. by Vincent Almazan & Lillian McCarthy, Detroit: Wayne State University Press.
- RUDŽĪTE, M. 1963: *Latviešu dialektoloģija*. Rīga: Latvijas valsts izdevniecība.
- SCHMALSTIEG, W. R. 1980: *Indo-European linguistics: A new synthesis*, University Park and London: The Pennsylvania State University Press.
- SCHMALSTIEG, W. R. 1987: A structural and typological view of some Indo-European monophthongizations. Poznań: Adam Mickiewicz University. (Institute of Linguistics, Working papers, 23.)
- SCHMALSTIEG, W. R. 1998: Latin *sum* and the Slavic first person singular present. *Historische Sprachforschung* 111 (2), 286–295.
- SCHMALSTIEG, W. R. 2000: Lithuanian and Indo-European Parallels. *Journal of Indo-European Studies* 28, 385–398.

STRANG, B. 1970: *A history of English*, London: Methuen & Co.

THUMB, A., HAUSCHILD, R. 1959: *Handbuch des Sanskrit*. Vol. 2, Heidelberg: Carl Winter.

VAN WINDEKENS, A. J. 1976: *Le tokharien confronté avec les autres langues indo-européennes*. Vol. 1. La phonétique et le vocabulaire, Louvain: Centre international de dialectologie générale.

ZINKEVIČIUS, Z. 1966: *Lietuvių dialektologija*, Vilnius: Mintis.

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