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**A BALTO-SLAVIC AND INDO-IRANIAN PARALLEL: THE  
NON-EXISTENCE OF SHWA INDOGERMANICUM (OR  
LARYNGAL) IN THE SO-CALLED LONG SONANTS**

In the traditional treatments of Indo-European we find the statement that sonant *\*r*, *\*l*, *\*m*, *\*n* plus shwa (or laryngal) yields *\*r̄*, *\*l̄*, *\*m̄*, *\*n̄* which have varying fates depending upon the various languages. Some examples given below are taken from Meillet, 1937, 124:

*\*r̄*: Skt. *gīrṇáh* 'swallowed', Lith. *girtas* 'drunk', *gùrklī* 'throat', Old Church Slavic (OCS) *gr̄olo* (Serbo-Croatian *gr̄lo*) 'throat', Gk. *báraphron* 'gulf, pit'; Skt. *sphūrjati* 'bursts forth; rumbles', Gk. *spharagéo* 'burst with a noise', Lat. *spargō* 'sprinkle', Lith. *spūrgas* 'bunch, cluster; bud'.

*\*l̄*: Skt. *dīrgháh* 'long', Avestan *darəvo*, Hitt. *dalugaš*, OCS *dl̄bḡo* (Serbo-Croatian *dūg*), Lith. *ilgas*; Skt. *pūrṇáh* 'full', OCS *pl̄on̄o*, (Serbo-Croatian *pūn*), Lith. *pilnas*, Goth. *fulls* (< Germanic *\*fulnaz*), Old Ir. *lān*.

*\*n̄*: Skt. *jātáh* 'born', Avestan *zātō*, Lat. (*g*)*nātus*, Gaul. (*Cintu*-)*gnātus*; Goth. (*guma*-)*kunds* 'male'; Skt. *vātā* 'wife of the husband's brother', Lat. *iānitrices* 'the wives of two brothers'; Lith. (*pa*-)*žintas* 'known, acquainted', Goth. *kunþs* 'known; acquaintance'.

Other examples which can be added are (Thumb-Hauschild, 1958, 242): Skt. *ūrṇā*- 'wool', Goth. *wulla*, Lith. *vilna*, all of which are supposedly derived from *\*uḷnā* (*\*uḷnā*); (Thumb-Hauschild; 1958, 250): Skt. *pūrva*- 'before, in front of' < < *\*pbrə-uo-*, cf. Lith. *pirmas* 'first'; (Thumb-Hauschild, 1958, 251): Skt. *irmá*- 'arm', Lat. *armus*, Goth. *arms* < IE *\*brāmo-*; Skt. *bhūrja*- 'birch', Lith. *béržas*, Russ. *berēza*; (Hirt, 1921, 126) Skt. *tīrhá*- 'passage, way' (related to *tárati* 'passes over, crosses over', *tiráti*), Lith. *tiltas* 'bridge'; Skt. *mūrkháh* 'fool', Latv. *mulkis* 'Dummkopf', Lith. *mūlkis*, Gk. *malakós* 'soft, tender'; Skt. *mūrṇáh* 'crushed, ground', Lith. *málti* 'to grind, to mill'; Skt. *dīrṇáh* 'torn, rent, sundered', Lith. *dirti* 'to flay, to skin'.

I propose, however, that there never was a shwa or laryngal in these forms and that the Lithuanian situation reflects the earliest reconstructible Indo-European state of the accentual condition of the so-called long sonants. The Sanskrit examples which show *-ī-* or *-ū-* before the consonant *-r-* in tautosyllabic position all contain the ref-

lex of specific Sanskrit phonological changes whereby an old acute accented \*-úr- or \*-ír- become -ūr- or -īr- respectively.

I should next like to call attention to certain accentually conditioned lengthenings in the Baltic languages. I assume that these Baltic phenomena show a development similar to that which I have proposed for Sanskrit.

In Lithuanian tautosyllabic diphthongs with the acute intonation the initial element is allophonically longer than it is in those tautosyllabic diphthongs with a circumflex intonation. Thus in words such as *áukštas* 'tall, high', *gérti* 'to drink,' *ántis* 'duck', *báimė* 'fear', *léisti* 'to let', etc. the syllable initial *a* or *e* is phonetically longer than in such words as *aũkštas* 'floor', *meĩgą* 'girl' (acc.), *aĩtis* 'bosom', *laĩkas* 'time', etc. In Eastern Lithuanian dialects the same is true for the mixed diphthongs with *i* or *u* as the first element, cf. standard Lith. *tvirtas* 'strong, firm', *pilnas* 'full', *laimingas* 'happy, fortunate', *kùrtas* 'greyhound', *plũksna* 'feather', *dũlkės* 'dust' with Eastern Lithuanian *tvírtas*, *pĩlnas*, *laimĩngas*, *kúrtas*, *plũksna*, *dũlkės*, etc. (see Endzelynas, 1957, 28).

In Latvian the falling and sustained intonations have lengthened *a* and *e* before tautosyllabic *r*, e. g., *dārzš* 'garden', *bērzš* 'birch tree', etc. but *daĩbs* 'work', *dzeĩt* 'to drink' with the broken intonation. In some Curonian dialects we find a lengthening of *i* and *u* in similar conditions e. g., *mĩrt* 'to die', vs. *ziĩgs* 'horse'. According to Endzelĩns (1951, 148 – 9), wherever the old distinction between the falling tone and the broken tone is lost the difference in vocalic quantity has taken over the contrastive function.

Wang (1969, 21) has pointed out that it is not necessary to assume that the rules of all sound changes apply to all morphemes within a given language. The old 'regularity hypothesis' in sound change may not be so simple as the neogrammarians had believed. In some morphemes or forms of the same morpheme a phoneme or phonemic sequence may have undergone a change, whereas in other morphemes or forms of the same morpheme this change may have been resisted.

Ordinarily the Indo-European \**l* and \**ɾ* are rendered by Skt. -*ṛ*-, cf., e. g., Skt. *ṛkṣa*- 'bear', Gk. *árktos*, Lat. *ursus*, or Skt. *vṛka*- 'wolf', Goth. *wulfs*, Lith. *vilkas*, OCS *vlъkъ*. But we do encounter various renderings before *y*, *v*, and vowel. Thumb-Hauschild (1958, 248) give examples of \**ɾ* being rendered by Skt. *ri* in *mriyáte* 'dies', *kriyáte* 'is done', and by Skt. *ur* in the examples *kuryāt*, 3 sg. opt. pres. of the root *kar*- 'to do'; also *kurváh*, 1 du. pres. (and analogical *kurmáh* for \**kṛmáh*).

Before vowel we find *ur* and *ir* (Thumb-Hauschild, 1958, 249): *puráh* 'before', *purá* 'earlier', Gk. *páros*, Goth. *faúr*; *śiras*- 'head' (IE \**k̑eres-*, according to Thumb-Hauschild), Gk. *kárā*, Lat. *cerebrum* (< \**k̑eresrom* with a different vocalism).

We also find those interesting examples with *-ir-* or *-ur-* in prevocalic position, but *-īr-* and *-ūr-* in preconsonantal position (Thumb-Hauschild, 1958, 250–1): nom. sg. *gīr* ‘song’, instr. pl. *gīrbhīḥ* but nom. pl. *gīrahḥ*; nom. sg. *pūr* ‘city’, loc. pl. *pūr-ṣú*, but loc. sg. *pur-í* ; *śīrṣá-* ‘head’ beside *śīras-*.

It would, of course, be possible to explain this morphophonemic alternation as due to the loss of a shwa (or laryngal) before the following vowel as in the gen. sg. *giráh* (from a presumed *\*girā-és*), *puráh* (from a presumed *\*purā-és*) without a trace. Before the following consonant, however, the trace of the shwa (or laryngal) would have been the compensatory lengthening of the vowel in the preceding syllable: loc. pl. *gīrṣú* (from a presumed *\*girā-su*), *pūrṣú* (from a presumed *\*purā-su*). On the other hand, my own assumption that the lengthening was caused by the acute intonation of an earlier *\*-úr-* or *\*-īr-* in tautosyllabic position seems just as phonetically plausible.

As Burrow (1965, 115) points out, Sanskrit does not distinguish between the acute and circumflex intonations known to Greek and Balto-Slavic. I would then propose a situation similar to that described by Endzelīns above (1951, 148–9) where a new distinction in length took over from an earlier distinction in intonation.

Although Burrow (1965, 109) does ascribe the appearance of Skt. *-īr-*, *-ūr-* to a laryngal origin, it is noteworthy to quote here his statement about the shwa (105): “In the comparative dictionaries this *a*, so insecurely founded, appears in the utmost profusion in IE reconstructions, particularly in the disyllabic roots... The theory of apophony was further complicated by the invention of original long diphthongs, possessing a weak grade *ai* which was held to have developed into *ī* (sometimes *-ay-*), but there is nothing in the facts to justify the assumption of such diphthongs or of the weak grades which are supposed to be derived from them“.

In certain of the previously mentioned examples we find the oxytone stress in Sanskrit as opposed to the barytone stress in Baltic, e.g. Skt. *dīrgháh* (ef. Gk. *dolixós*) vs. Lith. *ilgas* (cf. Serbo-Croatian *dūg*), Skt. *gīrṇáh* vs. Lith. *girtas*, Skt. *pūrṇah* vs. Lith. *pilnas* (cf. Serbo-Croatian *pūn*), Skt. *dīrṇáh* vs. Lith. *dirti*, Skt. *tīrthá-* vs. Lith. *tiltas*, etc. These discrepancies are usually explained by Hirt’s law according to which, in Baltic the stress was withdrawn from a final syllable onto a root syllable if the root syllable had a long vowel (see Illič-Svityč, 1963, 79).

If one assumes the existence of contrastive intonations in unstressed syllables (as we must, for example, for the de Saussure-Fortunatov law), then there would be no problem for the theory presented here. The unstressed syllables in question would have had the acute intonation which brought about the shift of *\*-īr-* and *\*-úr-* to *-īr-* and *-ūr-* respectively.

I tend, however, to be critical of those theories which assume phonemic differences in intonation in unstressed syllables. Therefore, I assume that the position of the stress shows a Sanskrit innovation.

In the examples Skt. *gīrṇáh*, *dīrṇáh*, *pūrṇáh* we note the typical accented *-ná-* of the verbal adjectives (see Wackernagel—Debrunner, 1954, 727).

Now accentual mobility was surely a feature of Indo-European substantive paradigms, cf., e. g., Gk. nom. sg. *poús* 'foot', gen. sg. *podós*, Skt. nom. sg. *pāt*, gen. sg. *padáh*, etc. And one thing that is immediately clear from even the most casual study of Lithuanian is the tendency of substantives to shift from one accentual paradigm to another. Thus one notes that in modern Lithuanian adjectives essentially only accentuation classes 3 and 4 remain productive, although there are clear indications from dialects and elsewhere that this was originally not the case (see Skardžius, 1935, 140—171). One may note also that many *u*-stem nouns have changed their accentual paradigm in Lithuanian. Skardžius (1935, 124) quotes from Daukša *žmôgus* 'man' (cf. the contemporary *žmõgus* as well as *žmogùs*). Similarly in addition to *dangùs*, *dangaùs* it seems that Daukša had *dañgus*. Even within Daukša we find many vacillations between the immobile and mobile accent classes (Skardžius, 1935, 245): *grābai|grabaĩ* 'coffins', *tiñklai|tinklaĩ* 'nets', *ākmuo|akmuõ* 'stone', etc.

It would seem quite possible to me that the discrepancies between the position of the stress in Baltic and the other Indo-European languages could rather be explained by assuming an original Indo-European mobile stress paradigm. In some cases in Baltic this was straightened out in favor of the barytone paradigm, whereas in other cases in other Indo-European languages the oxytone paradigm was chosen.

As Kazlauskas (1963, 173) says: "The representatives of classical accentology derived the Lithuanian mobile stress paradigm from the oxytone paradigm, which, supposedly, was retained in Greek and the Aryan languages. Such a view was consistent with the spirit of linguistic development of that era, when the systems of the Greek and Aryan languages were considered to be archaic and to correspond to the system of the protolanguage, whereas those phenomena which separated other languages from Greek and Aryan were considered innovations". Kazlauskas' conclusion is that there is no reason not to consider a mobile paradigm as being original in Baltic. I would go even further and suggest that there could well have been mobile adjectival paradigms in Indo-European.

The assumption of Indo-European nominal paradigms with accentual mobility is certainly nothing new. Thus Kuryłowicz writes (1958, 13): "Il semble hors de doute que l'accentuation immobile des paradigmes nominaux provient d'un développement relativement récent, quoique préhistorique, d'un état de choses plus ancien révélé par l'apophonie, surtout des syllabes prédésinentielles. En indien ou en grec cette apophonie avait perdu tout rapport avec l'accentuation.



L'accentuation des thèmes di- et polysyllabiques y est, selon l'expression de Saussure (Recueil, 532 – 4) *columnale*, toutes les formes du paradigme portant l'accent sur la même syllabe (à partir du commencement)“.

It should be pointed out that Kuryłowicz's theory of the origin of the Baltic intonations (1958, 162—169) would be quite different from what I propose here, i.e., that the Baltic situation is original in the earliest reconstructible Indo-European, but I would assume an original accentual mobility for at least some of the Indo-European paradigms and a later fixing of stress, thereby obviating the need for Hirt's law.

In a longer and more detailed paper which I am now preparing I have proposed that certain Indo-European phonemic sequences have developed into a single innovating phoneme which now competes with the etymological biphonemic sequence. I have already quoted Wang (1969, 21) to the effect that the regularity hypothesis in sound change may be more complex than the neogrammarians had believed. It could well be possible that phonemic split is merely the result of incomplete sound change.

I believe then that within Indo-European there was a tendency for a 'law of open syllables' to operate which led to the creation of a new single phoneme which contrasted with an old sequence of phonemes. I had originally suggested that the new phoneme arose in preconsonantal position whereas the old sequence was retained in prevocalic position. One might also suggest that a difference of original circumflex and acute intonation brought about the difference in treatment. One can compare the Lithuanian dialect monophthongizations under the circumflex intonation (see Zinkevičius, 1966, 92). On the other hand there may be no need to assume any phonological conditioning factor. Below I present the etymologically original sequence beside the innovating single phoneme:

Etymologically original sequence      Innovating single phoneme

*-ow	*-ō
*-oy	*-ē
*-ew	*-ū
*-ey	*-ī
*-ay	*-ā
*-aw	*-ō
*-ir	*-ī
*-iN (N = n or m)	*-ī
*-er	*-ē
*-eN	*-ē
*-ar	*-ā
*-aN	*-ā

*-or	*-ō
*-oN	*-ō
*-ur	*-ū
*-uN	*-ū

I have worked this out more fully in another paper, but for this paper a few examples will have to suffice: \**dow-* (Lith. *dāv-ė* 'gave', Gk. Cypr. aor. inf. *doFenai*) vs. \**dō-* (Lith. *dúo-ti*, Gk. *dí-dō-mi* 'give'); verbal class suffix \*-oy- (Goth. *hab-ai-p* 'has') vs. \*-ē- (Lith. *min-ė-ti* 'to mention', Lat. *sed-ē-re* 'to sit'); \**bhew-* (Skt. *bhav-a-ti* 'becomes, is') vs. \**bhū-* (Skt. 3rd sg. aor. *a-bhū-t*, Lith. *bū-ti* 'to be'); \**vey-* (Lith. 3rd person pres. *vėj-a* 'chases') vs. \**vī-* (Lith. *vý-ti* 'to chase'); \**sthay-* (Slavic *stoj-ati* 'to stand') vs. \**sthā-* (Lith. *stó-ti* 'to stand up'); Skt. nom. sg. masc. *bal-ī* 'strong' vs. gen. sg. masc. *bal-in-aḥ*; Skt. nom. sg. masc. *pít-ā* (< \*-ē) 'father' vs. voc. sg. masc. *pít-ar* (< \*-er); Skt. nom. sg. *svás-ā* (< \*-ō) 'sister' vs. voc. sg. *svás-ar* (< \*-er).

For the sequence \*-oN I would give the following examples: 1st sg. secondary ending \*-oN (cf. Gk. 'éphér-on 'carried', Skt. *ábhar-am*) vs. the primary ending \*-ō (cf. Gk. *phér-ō* 'carry', Lith. *turi-úo-si*<sup>1</sup>); Skt. nom. sg. masc. *śvā* 'dog' vs. voc. sg. masc. *śvan* (cf. Lith. *šuõ*, Gk. *kúōn* (with later addition of the -nl vs. voc. *kúon*); Gk. *dō* 'house' vs. thematic *dóm-os*.

I assume then that forms such as Skt. *jā-tá* really reflect a stem alternant *jā-* deriving simply from \**jan-* with no shwa or laryngal and have nothing to do with any long sonant \*-ṅ-. The same root supplies the Sanskrit word *jani-* 'wife'. When the suffix \*-ā was added we had \**janiā* in which the \*-i- took on consonantal function, thereby giving \**janyā* and then the \*-an- in position before a consonant became \*-ā- giving finally the alternative form *jāyā* in which the first *ā* reflects \*-an-. Possibly a slightly different chronology could be suggested in which \**geni* became \**genyā* with the addition of the suffix, but the principle remains the same. Another example is Skt. *yā-tar* 'wife of the husband's brother' (< \**yan-*), cf. Lat. *iānītrīces* 'the wives of the two brothers' in which an -ī- has been added to the root. Probably Skt. *ātī* 'aquatic bird' corresponds in the same way to Lith. *ántis* 'duck', OCS *qty*, etc.

It seems then that neither Balto-Slavic nor Indo-Iranian give any very good evidence for \**l̥*, \**l̄*, \**m̄*, \**n̄* deriving from \**l̥ə*, \**r̥ə*, \**m̥ə*, \**n̥ə* or \**lH*, \**rH*, \**mH* or \**nH*. One can just as easily consider Lithuanian as one's point of departure and explain all of the Indo-Iranian forms on the basis of internal accentual developments or on the basis of the proposed existence of doublet reflexes of certain Indo-European phonemic sequences. Cognates which are said to embody the results of Hirt's law can be explained as originally belonging to a mobile paradigm which has lost its mobility either through the fixation of the stress on the root syllable or the declensional end-

<sup>1</sup> Szemerényi, 1970, 308, proposes the same development for the first person singular ending.

ing throughout the declension. The significance of this is, then, that there is no reason to believe that correspondences of Baltic acute with Slavic acute and Baltic circumflex with Slavic circumflex are to be taken as indications of Balto-Slavic unity. The Baltic intonations may well reflect the Indo-European situation from which Indo-Iranian deviated in the manner illustrated.

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