https://doi.org/10.3176/lu.1992.3.01

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PROTO-INDO-EUROPEAN LARYNGEALS IN URALIC

This article has grown out of what was first meant as a short review of Jorma Koivulehto's recent book (Koivulehto 1991). Koivulehto (JK) has proposed in several publications a number of possible ancient Indo-European borrowings in Finnic and elsewhere in Uralic that contain a reflex of some Proto-Indo-European (= PIE) laryngeal. His book is a synthesis of his results in the field. Although it was Tryggve Sköld who in 1960 was the first to note that Finno-Ugric can exhibit different correspondences of different PIE laryngeals, JK presents now what could be called a theory of the reflexes of the PIE laryngeals in Uralic.

1. In the preface (p. 5) JK notes that he proceeds from the contemporary normal form of the laryngeal theory as presented in Manfred Mayrhofer (1986). The Uralic side is based on the studies of Juha Janhunen (1981) and Pekka Sammallahti (1988).

The introductory chapter (pp. 7—19) gives an overview of the former studies, «notes to the data» (*Bemerkungen zum Material*) and of the Proto-Uralic (= PU) historical phonetics and reflexes of laryngeals. The former studies include just those of Sköld and Björn Collinder who, however, identified the Uralic correspondences of the PIE laryngeals in the framework of Indo-Uralic affinity. Notes to the data reveal the relation of this study to JK's former studies in the field. The historical phonetics of Proto-Uralic interests JK inasmuch as Janhunen's reconstruction of the PU consonant system contains the consonant **x* whose phonetic characteristics have never been precisely specified. According to Janhunen, **x* was either the velar spirant, laryngeal stop or laryngeal semivowel whose reflexes were **ə* (preconsonantally) and ø (prevocalically) in Proto-Samoyedic (1981 : 250) and the vowel lengthening (preconsonantally) in Proto-Finno-Permic (= PFP) (1981 : 248, 252). In Ugric **x* has been rendered as **γ* (Sammallahti 1988 : 502). Janhunen's prevocalic **x* corresponds to Erkki Itkonen's **k* which was preceded by a long vowel, or to a more usual **γ* (**γ* is also accepted in Rédei 1986, and for that reason it is for JK «das traditionelle *γ*»). Sammallahti, on the basis of Ob-Ugric, holds it possible that **x* actually covers two different sounds, a velar that is represented as *γ*, and a laryngeal that has caused the vowel lengthening in Proto-Ob-Ugric (1988 : 482). Sammallahti has considered it «also possible that /*x*/ is merely a syllable boundary reconstructed in cases which originally had two successive heterosyllabic vowels»; JK correctly rejects this «possibility». On the other hand JK draws the reader's attention to the fact

that the intervocalic *x is also a reflex of the PIE word-internal *$ǵ^h$; in addition to the well-known Proto-Finno-Ugric (= PFU) *$wixi$- (*$wiγe$-) 'to bring' from the PIE /Pre-Aryan *$weǵ^h$-e/o- (when accepting the reconstruction of *i- stems one should rather reconstruct for PFU the stem *$wexi$-) he proposes also the PFU stem *$juxi$- (*$juγe$-) to come from Pre-Aryan *$ǵu$-$ǵ^hew$- 'to pour'.

In the second chapter (pp. 21—99), entitled as «Behandlung des Materials», the proposed borrowings with reflexes of the PIE laryngeals are presented. It is only here (p. 22) that a reader who is unfamiliar with Mayrhofer 1986 will first learn that here a trilaryngealistic theory is accepted. Still it is somewhat tiresome to find out that *h_1 is an e-colored laryngeal, *h_2 an a-colored one, and *h_3 an u-colored one whereas H is one whose color remains unspecified. Although trilaryngealism goes back to Frederic de Saussure I feel that most Uralists are in need of a brief and clear presentation of the theory. Moreover, I should have liked to see both an explanation of the advantages of this version before the version acquainted in Szemerényi 1970 and an explanation the advantages of trilaryngealism before all other «laryngealisms». For instance, the quadrularyngealistic theory (cf. Hamp 1965; 1989; Beekes 1988 : 76—77, 80—81, 100—102) seems to be a well founded one, e.g., it is possible to define four laryngeals by means of the following simple scheme:

		h_1-	a-	?
Greek	ε-		*h_1	
	a	*h_2		
	o-	*h_3		*h_4
Armenian		h-		$\emptyset$
Albanian		$\emptyset$		h-

On the other hand, several Indo-Europeanists and most Nostraticists have been satisfied with one single laryngeal *H; the apparent price of such a simple laryngeal system is that one must reconstruct vowels of different «color» instead of postulating a general protovowel *e in order to give the differently colored laryngeals the chance to transfer their color to the neighboring *e's. And last, not least, William R. Schmalstieg (1989) manages without any laryngeals, leaving all the responsibility to diphthongs (including 'mixed diphthongs' consisting of vowel plus sonant sequences).

The data are handled by presenting four lists of borrowings from PIE that exhibit evidence, respectively, of (1) the substitution of the PFP/EPF (Early PF) initial *k- for a PIE laryngeal — 8 items, (2) the substitution of the PU/PFU internal *x for a PIE laryngeal — 6 items, (3) the substitution of the PFU *k for a PIE laryngeal — 3 items, and (4) the substitution of the PFU/EPF *$š$ (> Late Proto-Finnic *h) for a PIE laryngeal — 10 items.

The very first glance on the proposed PIE originals, cf. Table 1, reveals that JK's etymologies bear no evidence in support of three or more laryngeals: if JK's etymologies are correct, the Uralic recipients were either unable to distinguish between different laryngeals or there were no more than one laryngeal.

Table 1

Uralic	Proto-Indo-European	$*h_1$	$*h_2$	$*h_3$	$*H$	Σ
(1)	*k-	2	5	1		8
(2)	*-x-	1	1	1	3	6
(3)	*-k-	1			2	3
(4)	*-š-	5			5	10
	Σ	9	6	2	10	27

The distribution of the proposed borrowings in different Uralic branches is presented in Table 2.

Of the 27 loan etymologies 23—24 have first been proposed by JK. In addition there is a list of 6 items (with one new etymology) representing old IE borrowings where there is no trace of the PIE ini-

Table 2

	Finnic	Lapp	Md.	Mari	Permic	Ugric	Samoyedic	All
(1)	8	4	3	2	2	?1	?1	8
(2)	5	2	3	4	4	5	5	6
(3)	3	3	2	0	1	2	0	3
(4)	7	2	2	2	4	1	0	10
Σ	23	11	10	8	11	8+	5+	27

tial laryngeals in Finno-Ugric. However, on the basis of Table 2 one must consider the correctness of the labels EPF and PFU/EPF for lists (3) and (4) rather dubious.

1.1. List (1) includes the following items: (1) Fi(nnish) *kasa* 'protruding peak, edge', Lapp *gæčče* 'peak'; ?Hu(ngarian) *hégy* 'mountain, peak' < PFU **kaća* from PIE **h₂aḱ-o-* resp **h₂aḱ-ā/*h₂aḱ-yā* (*-ā* = *-ah₂*), where **h₂aḱ-* < **h₂eḱ-* 'sharp'; (2) Fi. *kallis* 'expensive; dear' from PIE/Pre-G(er)m(anic) **h₂al-ye/o-(s)* > PGm **alja-*, Old Nordic *elja* 'concubine', where **h₂al-* < **h₂el-* 'keep, maintain'; (3) Fi. *kaski* 'a tract of land for cultivation, cleared of wood and brush by chopping and burning' from PIE/EGm. **h₂azg(ʰ)-* > PGm. **askōn-* 'ash'; (4a) *kasva-* 'to grow', MdM *kasə̑-*, MdE *kaso-* < **kaswa-* and (4b) and Mari *kuška-* 'to grow' separately from PIE **h₂awks-e/o-* > Gr(eek) *αὔξω* 'I grow' Lith(uanian) *áukštas* 'high'; (5) Fi. *kesä* 'summer', LpN *gæsse*, MdM *kizə̑* 'summer; year', MdE *kize* 'summer' from PIE **h₁es-*: **h₁es-en-* 'harvest, summer' > Church Slavonic *юсень* 'fall, autumn', Old Prussian *assanis* 'fall'; Gothic *asans* 'harvest'; (6) Fi. *kesy* 'tame', Komi *goz(j-)* 'pair', Udmurt *kuz* 'pair', *kuzjanį* 'to marry' < EFP **kese/*kese/*kesü* from PIE **h₁esu-*: **h₁su-* > Gr. *ἐύ-ς* 'good'; (7) Fi. *koke-* 'to experience; check up fishing-nets' < PU **koke-* from PIE **h₂okʷ-ye/o*, where **h₂okʷ-* < **h₂ekʷ-* > Gr. *ὀπ-τός* 'visible'; Anglo-Saxon *ēawan* 'to show'; Gr. *ὄμμα* 'eye', Latin *oculus*, Lith. *akís*; (8) Fi. *kuto-* 'to weave', Komi *kį̑-* < PFP **kuδa-* from PIE/Pre-B **h₂ŭdʰ-ah₂-(ye/o-)*, cf. PB(altic) **aud-*, Lith. *áusti* 'to weave', : *áudžiu*.

For item (1) note, firstly, that the Finnic and Lapp stems may well show only an occasional similarity: Finnic *a* : Lapp *æ* is no regular correspondence, and the Finnic stem means a 'peak' in a very special sense; on that basis Vladislav Illič-Svityč (Иллич-Свитыч 1971, no. 196) has, hesitatingly, connected the Lapp stem with certain Mari and Ugric stems that are usually considered reflexes of the PFU stem **kečз* 'knife' (cf. UEW 142). Moreover, the South Estonian equivalent *kadsa* [*kadzà*] 'an end of the ax's edge' makes one to ask whether *-dz-* really can be traced back to Proto-Finno-Ugric. I suppose that the Finnic stem can be an old Slavic borrowing, cf. Church Slavonic *коньць* 'end', Serbokroatian *kònac* : gsg *kònca*, Russian *конéц* : gsg *концá*, Upper Sorbian *kónc*, Low Sorbian *kóńć* from Proto-Slavic **konĭkŭ*, as traditionally believed, where **o* comes from the Pre-Slavic **ă*. If this explanation is true, one must suppose that **ă* has merged with **ŏ* only after the second Slavic palatalization had occurred. In any case, the Finnic stem cannot be a late East Slavic borrowing based on the genitive singular form, because of the loss of the nasal. In view of such a circumstance, secondly, it is more attractive to explain the Finnic stem as one coming from an unknown derivative of the Baltic verb that is represented as Lithuanian *kąsti* 'to bite' : *kándu* 'I bite', (cf. also *kañdis* : gsg *kañdžio* 'bite, piece') and Latvian *kuôst* 'to bite; to be sharp (e. g., a knife or a saw)' : *kuôžu*. In that case the South Estonian affricate is a more or less regular substitute for the Proto-Baltic **-dj-*.

For item (2) one must wonder why the PGm. sequence **lj* should be replaced by the PF **ll* instead of being retained. For item (3) one should rather expect that the Pre-Gm. **zg* were represented as **hk* in Finnic. Moreover, this etymology insists that the ultimate aim and the original meaning of e.g. Finnish *kaskenpoltto* 'burning *kaski*' was 'burning ash', i.e. a process analogical to burning charcoal; (North) Estonian *kask*, Votic *kahči* 'birch' must have been then first an 'ash tree'. Although this idea is far from senseless, it is more likely that **kaski* was not the aim of burning but something connected with the subject that was burnt. Therefore I suppose that the Finnic stem is actually related with the Uralic stem meaning 'to become dry', cf. **kośki-* 'to be dry; to become dry' in Janhunen 1981 : 235, 273; **kuśka* (**kośka*) in Redei 1988 : 223—4: making new fields was earlier connected with burning stumps, bushes, and young trees, especially birches, which were first dried out. The reconstruction of a non-low labial vowel here is not very convincing (probably the PU stem **koški* 'a shallow place', cf. Janhunen 1981 : 235, is not related with that stem), moreover, in Samoyedic there was an open illabial back vowel **ā* (according to Janhunen 1977 : 60 **å*) in the first syllable. JK (1991 : 30, note 13) has, by the way, already mentioned that the PU **koškį* 'a dry place', **koškį-* 'to be come dry, be dry' can also come from PIE **h₂ozg-* (> **h₂azg-*), where **h₂o* > **h₂a* is an *ad hoc*-change. Actually, here the stage **h₂ozg-* is entirely superfluous.

For (4a) the Mordvinian *-s-* [*ss*] is an abnormal reflex of **sw*: one should expect *-z-* instead of *-s-*. Therefore I suppose that both the Finnic and Mordvinian stems are borrowed from Baltic, cf. Lithuanian *gausėti* (iV) 'to multiply, increase'. Here the Baltic sequence **us* has been replaced by **sv* in Finnic and the diphthong **au* has been monophthongized in Mordvinian. For item (4b) note that JK has also discussed the possibility of deriving the Mari stem *kuška-* 'to grow' (4b) from another ablaut degree of the same PIE verb, viz. from **h₂woks-* (> PGm. **woχsa-* 'to grow'). Nevertheless one can as well suppose that

the Mari stem is related with Estonian *kohu|da* 'to rise, go or come up or higher (esp. dough, milk when boiling, soil)', Finnish *kohota* : 3sg *kohoaa* (< **kohota-*) 'to rise, go or come up or higher': Mari seems to have in some verbs of the 1st or *am*-conjugation a former verbal suffix *-k-* that is not obligatorily present in Finnic, cf. Hill Mari *šəškä-* 'to churn (butter); push in, press into', Meadow Mari *šüška-* vs. Finnish *sysää-* 'to cuff, push, shove', *sysi-* 'to cuff, push repeatedly', North Estonian *susi-* 'to prick, prod repeatedly; irritate', cf. North Estonian *suska-* 'to prick, sting, stick, stab, perforate', South Estonian *tsüskä-*, *tsuska-*, North Estonian *suski-* 'to prick, prod, stab, sting repeatedly', Livonian *siskā* 'to sting, stab, stick' (for a different explanation of the absence of *-k-* in Finnic cf. UEW 768 *süskä-*).

Item (5) is one of the three cases when a PIE **-en/*er-* stem is claimed as being borrowed; the two other cases, **vete* and **une* are **e*-stems in Uralic, hence one must ask why **kesä* has become an **ä*-stem. According to JK the reason of the selection of **ä-* was the existence of the stem (6), i.e. **kese* 'tame'. Although one really can imagine how a wife or a husband becomes tame, a Finnic **ü*-stem like **kesü* (6) has rarely cognates in some other FU languages (hardly can one base the reconstruction of the PF stem vowel on Aunus Karelian *kezi* : gsg *kezen*). Therefore I think that the Permic stems can rather be related with the PF stem **kosja-*, cf. Estonian *kosja/d* 'wooing' than with **kesü*.

Item (7) seems to be the single PU stem on that list; this circumstance makes its IE origin very problematic. Interestingly enough, this PU stem has been connected also with an Altaic (actually: Turkic) stem by Illič-Svityč (Иллич-Свитыч 1971, no. 183). For item (8) JK has postulated a PIE/Pre-B derivative with no attested reflexes in IE: still this stem may really be a borrowing that has come together with the skill of weaving.

1.2. List (2) includes the following items: (9) Fi. *nainen* 'woman'; *naida* 'to marry' < PU (Janhunen 1981 : 245—6; Sammallahti 1988 : 599 **näxi*; UEW 305 **niŋä*) from PIE **$g^{w}neh_2$-* > **$g^{w}nah_2$-* 'woman'; (10) MdE *pije-* 'to boil', MdM *pijə-*, Hu. *fő-* < PU (UEW 368 **peje-*; Janhunen 1981 : 245 *pexi*) from PIE **$b^{h}eh_1$-(ye/o-)* 'to warm, roast (iV/tV)'; (11) Fi. *puu* 'tree' < PU (UEW 410 **puwe*; Janhunen 1981 : 262 **pəxɨ*; Sammallahti 1988 : 539 **puxi*) from PIE **$b^{h}uH$-/*$b^{h}owH$* with the root **$b^{h}ewH$-/$b^{h}owH$-/*$b^{h}uH$-* 'to grow'; (12) Fi. *soutaa* 'to row', LpN *sukkâ-* < PU (UEW 449 **suγe-*; Janhunen 1981 : 245 **suxɨ*) from PIE **suH-e/o-* 'to start, propel'; (13) Fi. *tuoda* 'to bring', LpS **duokkâ-* 'to buy' < PU (UEW 529 **toγe-*; Sammallahti 1988 : 550 **toxi-*) from **doh_3-* < **deh_3-* 'to give' (cf. Sköld 1960 : 27—33); (14) Fi. *tuuli* 'wind' < PU (UEW 800 PEP **tule*; Janhunen 1981 : 241 **tuxlɨ*; Sammallahti 1988 : 554 PFP **tūli*) from PIE **$d^{h}uH$-li-*, a derivative of **$d^{h}ewH$-* 'to fly about, esp. about dust, smoke, steam; blow, breath, breeze'.

Both for (9) and (10) I find the postulation of **x* in Janhunen's reconstructions unfounded. Moreover, as the PIE **e* of laryngealistic reconstructions can have any reflexes in Uralic, one must conclude that the single shared consonant **n* makes an insufficient argument for the identity of the PU and PIE stems connected in (9). For (10) one can also argue for the PU protoform **püje-* instead of **peje-*. Illič-Svityč has connected **püje-* with similar Altaic (Tungusic and Mongolian) and Khartvelič stems and with the PIE stem **speu̯(i̯)-* (Иллич-Свитыч 1968, 10.3) where **u̯*, probably, is identical with **h_1*. Hence there are several

competitive hypotheses about the origin of the Uralic stem. For (11) the identity of the PU and PIE stems was proposed already by Illič-Svityč (Иллич-Свитыч 1971, no. 19) in the framework of the Nostratic hypothesis. For (12) it is hard to see a semantic link between the PU and the PIE verbs. Similarly, I have been unable to find a reasonable way to explain the rise from the PU sequence **uxi̯* (a) of the diphthong **ou* in most Finnic dialects and (b) of the diphthong *õi* [*ɐi̯*] in its Livonian counterpart, cf. *sõidõ* 'to row'. Therefore I suppose that the reconstruction of the Uralic stem is probably incorrect. Moreover, if **-t-* in the Finnic stem really belongs to the derivational suffix **-ta-*, and probably it does, we are unable both to reconstruct the root morpheme and to explain the reason of derivation (interestingly enough, the related stem occurs only as a derived one also in all Hanti dialects).

1.3. List (3) includes (15) Fi. *kulke-* 'to go, walk, move, wander', lpN *gol'gâ-* 'run, flow', Komi *kị̈lal-* 'to drift', Hanti *kɔ̄ɣəl-* 'step, run', Hu. *halad-* 'to advance; go by' < PFU (UEW 198 **kulke-*; Sammallahti 1988 : 544 **kulki-*) from PIE **kʷelH-e/o-:* Old Indic *cárati* 'moves, wanders' with the root **kʷel(H)-* 'to move, stir, wander'; (16) Fi. *suke-utu-* 'to become, originate', *suku* 'kin', lpN *sokkâ* < from PIE **suH-*: Old Indic *sū́te* 'gives birth, procreates', *(pra-)sūyate* 'to be born', *sū́-* 'birth' with the root **sewH-/*su*H- 'to give birth'; (17) *tehdä* 'to do, make', lpN *dâkkâ-*, Hu. *tëv-* < PFU (UEW 519 **teke-*; Sammallahti 1988 : 550 **teki*) from PIE **dʰeh*$_1$- (cf. Sköld 1960 : 33—37), Old Indic *dá-dhāti* 'puts, sets', Gr. *τί-θημι* 'I put, I set'; Lith. *dė́ti* : *dedù*.

In spite of a certain formal similarity of the stems traditionally believed to be the reflexes **kulke* (15), I doubt that the Komi and Hungarian verbs are related with those of Finnic, Lapp and Hanti. Concerning item (16) one must wonder how a stem with the special meaning 'to give birth' has received in the recipient language a very broad and almost the opposite meaning 'to originate'; curiously enough, the Finnic verb **suke-* has very rarely, if ever, the meaning 'to be born'.

1.4. List (4) includes (18) Fi. *ehkä* 'maybe, possibly' < Early PFU **ješkä* from Pre-B **jeh*$_1$*gā* > PB **jēgā* 'strength', Lith. *jė́gà* 'strength, power', La. *jẽga* 'sense' (< PIE **(H)yeh*$_1$*g*$_w$*eh*$_2$); (19) Fi. *ehtiä* 'to have enough time to do something' from Pre-B **jeh*$_1$*g-i̯e/o-* > PB **jēgi̯a-*, Lith. *jẽgti* 'to be able, have the power to accomplish' : *jė́giù*, La. *jẽgt* : *jẽdzu* 'to understand, to be versed'; (20) Fi. *ihminen* 'human being', *inhimillinen* 'human (adj.)'; MdE *inže* 'guest', MdM *inži* either from PIE/Pre-G/Pre-Aryan **ǵn̥h*$_1$*-e/o* (PGm. **kuna-*, Old Nordic *kun-r* 'son, noble man') or from **ǵn̥h*$_1$*-ye/o* (Gm. **kunja-*, Old Nordic *kyn* 'kin, family, kind') that both share the root **ǵn̥h*$_1$-; (21) Fi. *kehtaa-* 'not to shame oneself, not to be afraid (of doing something)' < (Pre-)Balto-Slavic/(Pre-)B **geh*$_1$*d-* (PB **gēd-*, Lith. *gė́da* 'shame') with the PIE root **g*^{w}*eh*$_1$[*u*]*d*^{h}-; (22) Lp. *bâsse-* 'to fry, roast', Hanti *pā̈l-* 'to fry in grease, boil' (UEW 385 **pišä,* Sammallahti 1988 : 547 **pišä/*pešä*; Koivulehto 1991 : 85 **pešä-/*püšä-*) from **b*^{h}*eh*$_1$*-ye/o-:* PGm. **bē-je/ja-*, OHG *bā(j)en* 'to foment, poultice; toast (bread)', with the PIE root **b*^{h}*eh*$_1$; (23) Ud. *puž* 'sieve', *pužnị̈nị̈* 'to sift', Komi *pož* 'sieve', *požn-al-nị̈* 'to sift' from PIE/PRE-Aryan **pewH-eno*, Old Indic *pávana-* 'sieve, strainer'; (24) Fi. *pohtaa* 'to

separate chaff from grain by fanning', from PIE/Pre-Gm. **powH-eye/o-*: PGm. **fauja-*, MHG *vōuwwen* 'to sift (grain), clear', with the PIE root **pewH-* 'to clear, clarify, sift'; (25) Fi. *puhdas* 'clean, clear, pure' from PIE **puH-tos*: Old Indic *pūtá-ḥ* 'clear' (a participle formed from the root **pewH-* 'to clear, clarify, refine, sift' (cf. Sköld 1960 : 37—41); (26) Fi. *vihdoin* 'at last', (arch.) 'once' from PIE **wiH/tah₂/*wiH-to-* 'walk, turn, sequence, order' with the PIE root **weyH-* 'to walk; take the direct course; way, sequence'; (27) MdE *užo* 'corner', MdM *užă*; MariH *waž* 'branching, ramification; branch', *wož*; KomiZ *vož* 'upstream tributaries; fork; branching, branch' from PIE/Pre-A/ Pre-Sl. **woyHā* (< **woy-Hah₂*): Old Indic *vayā́* 'branching, branch'; Church Slavonic *вꙗ*, Slovene *vêja* from the root **weyH-* 'to turn, bend'.

It is hard, if possible at all, to follow JK's argumentation of his etymology (18); nevertheless I suppose that his idea of the semantic shift of the stem roughly coincides with the distance of meanings of certain derivations of the Finnic verb **voi-* 'can; be able; be possible', from each other, cf. Estonian *võim* 'power' and Fi. *voima* 'power, strength', on the one hand, and Est. *võimalik* 'possible' and *võimalikult* 'possibly', on the other. JK's etymology (19) rests on the hypothesis that in Finno-Ugric the borrowed stem has added the suffix **-ta-/-tă-*; I am unable to see what for. The same is true for (24).

For JK's etymology (20) one must wonder, firstly, how can the PIE initial **ǵ* or its PB reflex **ž* be lost in Finnic and Mordvinian. The similar derivation of Finnish *ihme* 'wonder' (p. 80—81) from Pre-B or Pre-Gm. **ǵn̥(h₃)-m-*, of PB **žin-m-* > **žim-*, Lith. *žymẽ* 'mark, feature', La. *zîme*, does not solve the mystery. As there are no traces of **-h-* in the Estonian and Livonian cognates, cf. Est. *ime*, Li. *i'm*, in contrast to the ordinary cases of the PF **-hm-*, cf. Fi. *vihma* 'rain', Est. *vihm*, Li. *vi'mõ*, the Finnic 'wonder' probably comes from PF **imeh* whose **h* has been metathesized in Finnish just as that of **pereh* 'family' and **veneh* 'boat', except that the metathesizing **h* has not «stopped» after the sonorant consonant as it has done for dental sonorants. One cannot suppose even that **imeh* comes from **ihmeh* via the haplological loss of **h*: Estonian *pehme* 'soft' (: gsg *pehme*) < **pehmeh*, and *ahne* 'greedy' (< **ahneh*, cf. Karelian *ahneh*) exclude such a possibility. Secondly, JK avoids the question where the element *-m-* in the Finnic forms comes from. Thirdly, it is noteworthy that Finnish *ihminen* has no vowel before *-m-* but Estonian *inimene* 'human being', and Finnish *inhimillinen* 'human' have the vowel *i* in the 2nd syllable; hence, instead of accepting the exceptional loss of **-n-* in the first syllable and the exceptional syncopation of the vowel of the 2nd syllable in this Finnish stem, one should rather suppose that *inhi-* and *ihmine*n are stems of different origin. In that case one can suppose that *ihminen* was borrowed from Baltic, cf. Old Lithuanian *žmuõ* 'human being' (: accsg *žmuni*) that comes from **ǵhm-ōn* (cf. also Latin *hŏmo* < **hemo*, gsg *hŏminis*); in addition, *ihminen* can also be analyzed as containing the suffix **-inen* that is preceded by the root **ihm*V (< **išm*V) from IE **ǵhm-*. The initial **i* in *ihminen* can be prothetic to avoid an initial consonant cluster. Moreover, Karelian *inehmine* and Veps *ińehmoi* lead to the question whether these forms represent a former compound made of **inhe-* and **ihm*V- where the loss of *h* after the nasal can be explained by haplology. In any case, the interrelation of the Finnic nouns is too complicated to accept JK's etymology as granted.

For (25), i.e. PF **puhtas*, even JK's correction of Sköld's etymology

raises difficulties just as any other attempt to explain a Finnic nominal ending in **-as/*-äs* to be borrowed from Indo-European on the basis of an Aryan form which is a non-**as*-nominal. Concerning etymology (26) it should be noted that in those languages which expose a reflex of PIE **wiH-* JK has obviously found no derivatives with the meaning 'time case' that an IE original should have had.

The etymology (27) inspires the questions (a) why JK prefers **woyHā-* and not **woy Hah₂* as the candidate for the source form of the FU stems and (b) whether he considers the Mordvinian stem vowels to be the correspondences of the PIE/Pre-Aryan/Pre-Slavic **ā*. Moreover, contrary to UEW 810 (*wajз-šз* 'Zwischenraum, Abstand') and UEW 825 (*wošа* 'Verzweigung (eines Flusses, eines Weges') I think that Y. H. Toivonen was probably at least partially right in connecting these two stems. Firstly, Finnic **vajeh* < **vaješ* 'gap, interval' must be an incorrect reconstruction. Note that both Estonian *vahe* : psg *vahet* and Finnish *vaihe* : psg *vaihetta* behave in partitive like a normal former **eh*-nominal. Although on the analogy of the Finnish metathetic *perhe* 'family' < **pereh* one can really claim that a similar metathesis has occurred in *vaihe*, note that there are no traces of such a metathesis in North Estonian, and clearly has such a metathesis occurred in South Estonian (cf. *pereh* : gsg *`perre* : psg *pereht*). The intervocalic *h* in North Estonian *vahe* results from the regular North Estonian metathesis of **Vih* > **Vhj* (and **Vuh* > **Vhv*) and from the subsequent loss of **j* before **e*. Similarly, stød (i.e. the laryngealized tone) in Livonian *wa'it* : psg *va'itõ*, comes from **h* in **VihV*, where V is a non-open vowel); the stem-final *t* in the nominative form results from a restructuration of the partitive singular form where the stop *t* [*tt*] comes from the cluster **ht* that has undergone the regular assimilation to **tt*, which took place after the vowel of a non-initial syllable. Hence, there have been two **h*-s in the Livonian partitive form. In short, the correct reconstruction of the Finnic stem must be **vaiheh* < **vajšeš*. Secondly, Li. *va'it*, Est. *vahe*, Fi. *vaihe* can be related at least with the Mordvinian items: there are other cases with the correspondence PF **ai* < Pre-Finnic **aj* : Md. **u*, cf. Fi. *aitta* : MdE *utomo* (UEW 605—6 sub *ajta*) and both 'gap' or 'interval' and 'corner' refer to something that is primarily between two objects (cf. also Li. *va'izõ*, Est. *vahele* '(to enter) between', Li. *va'isõ*, Est. *vahel* '(to be) between'. Thirdly, the Mari and Permic meaning 'branching' clearly refers to a case when between two objects (sides) there is an angle, and a corner is a specific kind of angle. Maybe even Estonian *vahe* 'sharp' : gsg *vaheda* is a derivative of the same Finnic stem: given the developments German *Ecke* 'corner' → English *edge* (of a knife) and Finnic **terä* 'edge' → **terä|vä* 'sharp', it is simple to see that if the Finnic stem **vaiheh* once had the meaning 'corner' then it could well have a derivative with the meaning 'sharp'. In any case the inclusion of the Finnic stems rather supports JK's etymology and one can even claim that the corresponding PIE stem was **woyh₁eh₂-*.

1.5. In the third and concluding chapter «Abschliessende Betrachtung der Ergebnisse» JK first concludes that most of the 27 proposed cases of the Uralic/Finno-Ugric reflexes of the PIE laryngeals cannot be coincidents. Then he checks up the cases of proposed old borrowing where the IE laryngeals have no reflexes in Uralic, viz. (1) PFU **aja-* 'to drive (tV)' from PIE **ag̑-e/o-*, (2) Finno-Permic **ertä(s)* 'side' from PIE **erdʰo-s*, (3) PFU **orpa(s)* 'orphan' from PIE **orbʰo-s*, (4) Finno-Volgaic **ońća* 'part, share' from PIE/Pre-Aryan **onk̑o-/*onćo-*, (5) Finno-Mordvinian **uni* (UEW 804 **une*) 'sleep; dream' from PIE **on-en/er-*,

(6) PFU **ūči* (UEW 541 **uče*) 'ewe' < **uwi-č(i)* (JK's reconstruction) from PIE **owi-*.

The last two stems (5) and (6) had not been considered borrowings from Proto-Indo-European before. JK explains the rise of the vowels **u* and **ū* in **une* and **ūhi* instead of **o* as resulting from the absence of the sequence **oCi* long after the change of PU **oCi* > **uCi* in PFU (this change was first postulated by Janhunen 1981 : 231, 248). I think that one must be more careful when trying to connect with each other different Finno-Ugric or even Finnic stems denoting a ewe, lamb, or she-goat. E.g., Estonian *utt* (gsg *ute*), *utu* and Finnish *uuhi*, West-Estonian dial. *uhi(lammas)* etc., despite of certain similarity, cannot come from the same protoform; on the other hand, their similarity has obviously caused the appearance of several contaminational stems in Finnish, cf. *uuhti*, *uutti*, *uuttu*. The (rare) Finnish meaning 'she-goat' (cf. SKES 1559) and the similarity of *uuhi* and Finnish *vuohi* 'goat' (< PF **vōhi* from Baltic, cf. Lithuanian *ožỹs* 'he-goat' *ožkà* 'she-goat', Old Prussian *wosee* 'she-goat' (Kalima 1936 : 181) suggests rather that **ūhi* and **vōhi* result from a homonymic split. Note that ancient sheep breeders have often used a he-goat as the leader of a sheep-herd. An additional argument for such a split is the name of flag (*Iris pseudacorus* or *Iris sibirica*) in Estonian, cf. *võhu|mõõk*, Coastal Estonian *vohu|mieka* 'goat's sword' (cf. Votic *voho* 'goat') and West Estonian *uha|mõõk*, *uhemõõk* 'ewe's sword'. Similarly, it is far from evident that the Mordvinian, Mari, Permic and Ob-Ugric stems come from a common protoform. They have rather been borrowed separately from some related languages or dialects; maybe only the Mari and Permic stems are more intimately connected with each other.

2. JK's explanation of the circumstance that one part of ancient borrowings from Indo-European have no reflexes of the PIE laryngeals whereas another part do have rests on the idea that the borrowings with no reflexes come from the innovative central or eastern IE dialects that had lost the initial laryngeals relatively early. The northwestern marginal dialects, which later developed into Germanic, Baltic and Slavic, have preserved the laryngeals for a longer time. According to JK, these dialects belonged to bearers of the cordceramic cultures of battle axes (*die schnurkeramischen Streitaxtkulturen*) in the Baltics, Scandinavia and South-West Finland of 2500—2000 BC. Interesting enough, JK says nothing about the location of Uralians or Finno-Ugrians at that time. Note that Harri Moora (1956 : 52—60) and Paul Ariste (1956 : 10—11), identified the culture of battle axes in the Baltics and South-West Finland with that of the ancestors of Balts and the somewhat earlier culture of comb-ceramics with that of the Finno-Ugric ancestors of the Lapp and Finnic people. JK's position is, in a way, a somewhat more careful or, actually, a looser version of that theory.

2.1. The most essential linguistic conclusions of JK are (a) that because of substantial differences of the Uralic/Finno-Ugric and IE consonant systems, the borrowings cannot reveal much about the phonetic value of the IE laryngeals (p. 115) and (b) that the recoloring of the PIE **e* under the influence of laryngeals was not yet completed at the time of the oldest contacts of Indo-European and Uralic (116).

JK's first conclusion agrees in a way with Table 1 above, which, however, may well serve as an argument against the correctness of the trilaryngealistic theory. The latter conclusion, however, rests on item (9), i. e. PU **näxi* 'woman' ?? < PIE **$g^{w}neh_2$*. Even if this etymology is correct, one can hardly make such far-reaching conclusions from so narrow a basis.

Table 3

		*k, *k^w, *g, *g^w/ — {e, i}			
		k, g	c, ʒ	č, ǯ	č, ž
*ḱ, *ǵ	θ, {δ, d}	Albanian		Old Persian	
	c, ʒ			Nuristhānī	
	ś, ǯ			Sanskrit	
	s, {c, z}	Old Prussian	Khwarezmi Latvian	Armenian Avestan	Church Slavonic
	š, ž	Lithuanian			

3. The Uralic counterparts *x (or *γ), *k, *$š$ of the PIE internal laryngeals, especially the last two of them, are interesting in raising doubts concerning the age of borrowing of items in lists (1), (3) and (4).

No matter how many laryngeals there were in Proto-Indo-European (cf. the discussion concerning Table 1), *k and *$š$ as reflexes of PIE laryngeals reveal that the PIE laryngeals have behaved in Uralic almost in the same way as did the PIE palatalized velar stops *$ḱ$, *$ǵ$, *$ǵ^h$: the latter have become unpalatalized in one part of IE languages and have satemized (i.e. have become affricates or sibilants) in another part. Among the oldest IE borrowings in Uralic, actually in Finno-Ugric, there is one case of PIE *$ǵ^h$ being represented as PFU *γ and another case being represented as *j, cf. PFU *$wiγe$- 'to carry; take' from Pre-Aryan *$weǵ^h$- (Rédei 1988 : 658) and PFU *aja- 'to drive, chase' from Pre-Aryan *$aǵ$- (Rédei 1988 : 654); in such cases a kind of Aryan (Indo-Iranic) has been proposed for the donor because of geographical considerations. There are, however, no known cases of the PU or PFU *k as the representative of the PIE *$ḱ$, *$ǵ$ or $ǵ^h$. In other oldest borrowings the PIE palatalized velar stops are represented as *$ć$ or *$ś$; in those cases the Aryan (including Iranic) donorship of borrowings is relatively well founded, cf. also Table 3 where (a) the reflexes of the PIE palatalized velar stops as well (b) the somewhat similar palatalization of the PIE unpalatalized velars and labiovelars in different IE languages are presented. The range of languages where a palatalized velar stop has become *$š$* or *$ž$* is restricted to one single language, namely to Lithuanian, cf. Table 3. Although one can speculate that the Lithuanian sibilant qualities reflect the oldest stage of satemization (this is true at least in the framework of Baltic language group), Baltic languages still remain the single known donor of the IE borrowing having in some Finno-Ugric languages *$š$ (> *h in Finnic) for a PIE palatalized velar stop.[1] The bulk of IE borrowings having *k as the substitute for the PIE *$ḱ$, *$ǵ$ or $ǵ^h$ have come to Finnic and Lapp from Germanic where *h, *k and *g are the normal reflexes of the PIE stops.

In the light of these circumstances the number of IE borrowings in Proto-Uralic or Proto-Finno-Ugric exhibiting *γ (Janhunen's *x) or *k for a PIE laryngeal must be restricted, i. e. JK's etymologies with cog-

nates in Mordvinian, Mari and Permic must be treated as tentative.[1] Similarly, any etymologies proposing the substitute *š for a PIE laryngeal outside the Finnic, Lapp and Mordvinian languages need an explanation. At least the case of **vajšeš* seems to confirm that there must be one. Maybe at a certain period the PIE $*h_1$ has behaved in a particular way, i. e. differently from other laryngeals, just as the PIE $*ǵ^h$ has behaved differently from other palatalized velar stops. In that case all the etymologies having the substitute *x or *k for the PIE $*h_1$ must be considered false. On the other hand, in that case one may conclude that the Uralic languages bear a certain evidence for the existence of at least two laryngeals in Proto-Indo-European.

[1] Note, however, that there may still exist some borrowings from some later IE *satem*-dialect of the pre-satemizational period exhibiting the substitute *k for a PIE palatalized velar stop. Thus the following somewhat aberrant forms, viz. South Estonian *kiben, kipen* 'particle, crumb'; North Estonian *kibe* : *kibeme, kübe* : *kübeme*; Finnish *kipinä, kipuna* 'spark; crumb', *kyven* 'spark, glowing coal'; North Karelian *kipeneh* 'particle, grain'; Aunus Karelian *kibun* seem to have been borrowed from Baltic before the palatalized velar stops were satemized, cf. Lith. *žibė́ti* 'to sparkle, radiate; shine', *žiburỹs* 'light (n)'; La. *zibens* 'lightning', *zibēt* 'to flash; glitter'.

Abbreviations

g — genitive, n — nominative, p — partitive, sg — singular. Abbreviations form compounds, e.g., gsg — genitive singular.

LITERATURE

Ariste, P. 1956, Läänemere keelte kujunemine ja vanem arenemisjärk. — Eesti rahva etnilisest ajaloost, Tallinn, 5—23.

Beekes, R. S. P. 1988, Laryngeal developments: A survey. — Die Laryngaltheorie und die Rekonstruktion des indogermanischen Laut- und Formensystems, hrsg. von Alfred Bammesberger, Heidelberg, Carl Winter / Universitätsverlag, 59—105.

Hamp, E. 1965, Evidence in Albanian. — Evidence for Laryngeals, ed. by Werner Winter, The Hague, Mouton, 123—141.

—— 1989, The Indo-European obstruent features and phonotactic constraints. — The New Sound of Indo-European: Essays in Phonological Reconstruction, ed. by Theo Vennemann, Berlin — New York, Mouton de Gruyter (Trends in Linguistics. Studies and Monographs 41), 209—214.

Janhunen, J. 1977, Samojedischer Wortschatz. Gemeinsamojedische Etymologien, Helsinki (Castrenianumin toimitteita 17).

—— 1981, Uralilaisen kantakielen sanastosta. — JSFOu 77, 219—274.

Kalima, J. 1936, Itämerensuomalaisten kielten balttilaiset lainasanat, Helsinki (SKST 202).

Koivulehto, J. 1991, Uralische Evidenz für die Laryngaltheorie, Wien, Verlag der österreichischen Akademie der Wissenschaften (Österreichische Akademie der Wissenschaften. Philosophisch-Historische Klasse. Sitzungsberichte, 566. Band. Veröffentlichungen der Komission für Linguistic und Kommunikationsforschung, Nr. 24.).

Mayrhofer, M. 1981, Indogermanische Grammatik, Band I, 2. Halbband. Lautlehre, Segmentale Phonologie des Indogermanischen, Heidelberg.

Moora, H. 1956, Eesti rahva ja naaberrahvaste kujunemisest arheoloogia andmeil. — Eesti rahva etnilisest ajaloost, Tallinn, 41—119.

Rédei, K. 1986, Uralisches etymologisches Wörterbuch I. Unter Mitarbeit von Marianne Bakró-Nagy, Sándor Csúcs, István Erdélyi, László Honti, Éva Korenchy, Éva K. Sal und Edit Vértes, Budapest.

—— 1988, Die ältesten indogermanischen Lehnwörter der uralischen Sprachen. — The Uralic Languages. Description, History, and Foreign Influences, ed. by Denis Sinor, Leiden — New York — København — Köln, 638—664.

Sammallahti, P. 1988, Historical phonology of the Uralic languages, with special reference to Samoyed, Ugric, and Permic. — The Uralic Languages. Description, History, and Foreign Influences, ed. by Denis Sinor, Leiden — New York — København — Köln, 478—554.

Schmalstieg, W. R. 1989, Monophthongizations. More plausible than laryngeals! — The New Sound of Indo-European. Essays in Phonological Reconstruction, ed. by Theo Vennemann, Berlin — New York, Mouton de Gruyter (Trends in Linguistics. Studies and Monographs 41), 67—73.

Szemerényi, O. 1970, Einführung in die vergleichende Sprachwissenchaft, Darmstadt.

Иллич-Свитыч В. М. 1968, Соответствия смычных в ностратических языках. — Этимология 1966. Проблемы лингвогеографии и межъязыковых контактов, Москва, 304—355.

—— 1971, Опыт сравнения ностратических языков (семитохамитский, картвельский, уральский, дравидийский, алтайский). Введение. Сравнительный словарь (b — K), Москва.

ТИЙТ-РЕЙН ВИЙТСО (Тарту)

ПРАИНДОЕВРОПЕЙСКИЕ ЛАРИНГАЛЬНЫЕ В УРАЛЬСКИХ ЯЗЫКАХ

Йорма Койвулехто в своей книге (Koivulehto 1991) суммировал достижения в области этимологизации индоевропейских заимствований в уральских языках, праформы которых в праиндоевропейском имели ларингальные $*h_1$, $*h_2$, $*h_3$ или $*H$ (из представленных в книге 27 этимологий 23 принадлежат ее автору). Согласно Койвулехто, ларингальные, независимо от качества, имеют в уральских языках следующие соответствия: (1) **k-*, (2) **-χ-*, (3) **-k-*, (4) **-š-*; кроме того, в некоторых случаях они не имеют никакого соответствия. Не все этимологии можно считать безупречными.

Так как соответствия ларингальных в уральских языках в большой степени аналогичны соответствиям праиндоевропейских палатализованных заднеязычных смычных **ḱ*, **ǵ* и **ǵʰ*, выдвинута гипотеза, по которой ларингальному $*h_1$ в уральских языках соответствует **š*.