

## INDO-HITTITE LARYNGEALS IN ANATOLIAN AND INDO-EUROPEAN

In 1927 Jerzy Kuryłowicz // FsRozwadowski, I (1927): 95—104 dusted off de Saussure's *coefficients sonantiques* and connected these precocious structuralist constructs, modified by Møller, VISWb (1911), with the evidence of Hittite, matched against the reconstruction of Proto-Indo-European as codified in the 2nd edition of Brugmann's *Grundriss*. The view that the *coefficients* posited by de Saussure corresponded to the Hittite *h*-sounds started gaining an acceptance that was quite disproportionate to the facts. In some instances the *coefficients* relabeled by Kuryłowicz *éléments consonantiques* (de Saussure's *A* and *O* rewritten as  $\partial_2$  and  $\partial_3$  and Møller's *E* rewritten as  $\partial_1$ ), did correspond to Hittite *h*/*hh*, but in many other instances they did not. Whereas it is true that Lat. *pāscō* 'pasture' (pf. *pāvī*), with the projected  $*e\partial_2$  in lieu of the Brugmannian  $*\bar{a}$ , corresponds to Hitt. *pahhaš-* / *pahš-*, and Lat. *ante*, Gk. *ἀντί* from the projected  $*\partial_2ent-$  corresponds to Hitt. *hanz(a)* 'front' and *hantezziš* 'first', and Lat. *os*, Gk. *ὀστέον* 'bone' from the projected  $*\partial_3est-$  corresponds to Hitt. *haštai* n. 'bone', it is also true that Gk. *δί-δω-σι*, *δο-τό-ς* from the projected  $*de\partial_3-$  'give' corresponds to Hitt. *daai* (3 sg. prs., *hhi*-conj.) 'take', *daaš* (3 sg. prt.), with no trace of *h* or *hh*; Gk. *πῶ-θι* 'drink!', O.Ind. *a-pā-t* 'drank', projected from  $*pe\partial_3-$ , corresponds to Hitt. *pa(a)š-i* (3 sg. prs., *hhi*-conj.) 'swallow', with no trace of any *h*/*hh*. O.Ind. *stāyāt* 'furtively', *tāyá-h* 'thief', O.Ir. *táid*, OCS. *татѣ* 'thief', projected from  $*(s)te\partial_2-$ , corresponds to Hitt. *taiuzzi* (3 sg. prs., *mi*-conj.) 'steal' and not to an expected  $**tahhiuzzi$ . Gk. *τί-θη-σι*, Lat. *fē-c-ī*, projected from  $*dhe\partial_1-$ , corresponds to Hitt. *daai*, prt. *da(a)iš*, without any trace of *h*/*hh*. Greek *ἐστί* 'is' / *εἰστί* 'are', Lat. *est*, *sunt*, etc. from the projected  $*\partial_1es-ti$  /  $*\partial_1sénti$ , correspond to Hitt. *eš-zi*, *aš-anzi*. Lat. *ōs* 'mouth', etc., from the projected  $*\partial_3é\partial_1s-$  or  $*\partial_3ó\partial_1s-$  or  $*\partial_1o\partial_1s-$  or  $*\partial_1é\partial_3s-$ , depending on whom one believes, corresponds to Hitt. *aiiš* 'mouth', Luw. *aašš* id., with no trace of either  $\partial_3$  or  $\partial_1$ .

Moreover, none of the "disyllabic" verbs, which, according to W. Cowgill's well-known assessment of the evidence for the laryngeals, as the *éléments consonantiques* are widely known, "furnish the most powerful evidence for the laryngeal theory,—evidence that (...) would be sufficient to establish the theory

without help from Hittite *h*'s or any other sound effects that with more or less plausibility have been attributed to the laryngeals" (Cowgill // Evidence for Laryngeals (1965): 144)—none of these momentous disyllabic verb stems are in fact attested in Anatolian with laryngeals in the second syllable.<sup>1</sup> The only example which may have Greek and Anatolian cognates—Hitt. *hullizzi* 'strikes' vs. Gk. ὀλλῦσι 'destroys' (aorist root ὀλε-), both projected from *\*a<sub>3</sub>l-néa<sub>1</sub>-ti* (the pre-laryngealist disyllabic root *\*olē-*, the laryngealist one *\*a<sub>3</sub>léa<sub>1</sub>-*), fails to show any *h/hh* in the second syllable of the Hittite stem. Besides, no cognates of Hitt. *hullizzi*, etc., have so far been found in other Anatolian languages.

Few post-saussureans and post-bloomfieldians, however, could be daunted by absences or null correspondences. The values of systematicity, symmetry, and simplicity of structure, forcefully reasserted by Chomsky and his followers, further enhance the practice of positing laryngeals wherever the mental comforts inherent in these values make it opportune. For the Young Grammarians, *Systemzwang* (system pressure) was an unconscious force that drove speakers of a language to level, back-form, and create through analogy. In an ironic conceptual switch, it is the symmetry-seeking linguists who level, back-form, and analogically remake the unruly, asymmetrical, and uneconomical facts of linguistic reality when it suits their explanatory needs. Reconstruction suffers from this practice particularly since, resulting from inference (almost as distrusted as introspection), it may be made to bear anything. While officially structuralism has long been out of favor, its methodological nuts and bolts, mass-produced by the Chomskyan industry, have become standard equipment in the linguist's tool kit.

Linguists still focus their attention on the phoneme, at the expense of the sound (the mere "allophone"), and on the morpheme, at the expense of that ill-defined item, the lexical item or the word. While accusing the Young Grammarians of "atomism," mainstream linguists are content to reconstruct bits and pieces of words, combining them virtually at will. In one of his studies, H. Craig Melchert points out: "I stress that I attribute no great significance to [etymologies of whole verbs]. My emphasis will be on reconstructing stem types, not individual lexical items, and my account of the verbal endings stands or falls on the plausibility of the former [i.e., stem types], not the latter [i.e., words]" (IF 97 (1992): 33). The epistemological status of the results of this approach is acknowledged a few pages later: "[t]he dearth of solid root etymologies (the result of our imprecise grasp of synchronic meanings), leads to a greater degree of arbitrariness in our historical analysis than we would like. Nevertheless, starting with historical phonological rules most of which are independently motivated, we have arrived at {...} pre[-]forms whose phonological shapes suggest, although they do not prove [emphasis mine.—A. L.], derivation from well-established PIE and CA morphological types." These "virtual" shapes or "virtual reconstructions" (in Melchert's ubiquitous phrase) do indeed allow a great

<sup>1</sup> See, e.g., Oettinger, Stamm.

freedom of manipulation. And why not? The linguistic sign is arbitrary anyway—which, in practical terms, means that we may assemble and disassemble reconstructed morphemes in any way that seems expedient, coming up with “law” upon “law” to build up our “air-tight” relative chronologies of rules and individual changes as needed, aided by Occam’s razor as needed, aided by typological considerations as needed—just as long as these changes are “internally consistent.” In this post-modern “virtual reality,” we may float and splice together disjointed bits and pieces of words as eristically needed and with no commitment to historical accuracy of reconstruction.

Heiner Eichner provides a classic example of this methodology in his well-known paper on Hittite *mehur* ‘time’ (MSS 31 (1973): 53–107). Through his ingenious use of structuralist machinery with its separate abstract phonological and morphological components, Eichner triumphs over the uncomfortably irregular-looking Hittite word—and all other unruly facts like it—by regularizing it with what is now known as “Eichner’s Law.” According to this *dura lex*, the laryngeal fails to change the timbre of the preceding vowel, as it would be expected to do, when the vowel is lengthened by a morphological rule that, by a loop of reasoning, precedes the laryngeal coloring of the vowel in Eichner’s abstract list of derivation rules: thus Hittite *mehur*, *meehunaš* ‘time’, with its troublesome, from the classic laryngeal theory’s point of view, sequence of uncolored *e* plus *h*, is explained away as *\*mēh<sub>2</sub>-uṛ* (the root of Lat. *mā-tūrus*, etc.): first, the root *\*meh<sub>2</sub>-* is lengthened through the morphological process allegedly at work in, e.g., Gk. *ῥῆπαρ* < *\*iēkw-ṛ*; second, the long vowel so produced fails to turn into *\*ā*.

This “explanation,” with its obvious *petitio principii*, has become a fashionable pattern. The fact that the word *mehur* ‘time’ is attested only in Hittite (it has no Luwian or other Anatolian cognates and no word cognates in non-Anatolian Indo-European) and the possibility of alternate explanations are ignored.<sup>2</sup> In the bygone days of the traditional historical methodology, Eichner’s explanations and the Hitt. *mehur* with them would have been simply left alone for the want of reliable evidence, in expectant waiting for the time when a Luwian cognate or some other piece of new evidence might finally illuminate its origin. But waiting is not a modern virtue, and even less a post-modern one. Eichner is undaunted by the “single” *-h-*, attested in *mehur* instead of the expected *-hh-* corresponding to the PIE *\*h<sub>2</sub>*. Why, this is a good opportunity for making yet another “law,” this one intended to take care of this instance—and all other instances, when convenient—of the apparent violation of “Sturtevant’s law” (this one well established, at least for Hittite): the “lenition” law which affects intervocalic obstruents following a long vowel.

<sup>2</sup> Cf. the explanation with *\*h<sub>1</sub>* instead of *\*h<sub>2</sub>* and the one that points to the possibility of the single *-h-* being a Hiatusilger (see Cowgill // HuI (1979): 27 f.; according to Cowgill, the etymon is *\*meh<sub>1</sub>-uṛ*, and he compares it to *e-hu* ‘come here!’ < *\*e<sub>1</sub>-au*, where *-h-* is, according to him, also a non-etymologic hiatus filler).

Jay Jasanoff // *Laryngaltheorie* (1988): 227—239 uses the same methodology to tackle the irksome Hittite *ga-ne-eš-zi*, etc., 'recognizes', which has bothered the laryngealists for decades. Jasanoff uses *lex Eichneri* to explain away the Hittite *\*e-e°* attested instead of the expected *\*\*a-a° < \*eh<sub>3</sub>-*, then gets into difficulties, unbeknownst to himself, positing a PIE *\*-s-present* "with processual meaning" for which there is no convincing evidence either in Anatolian or in Indo-European.<sup>3</sup>

Craig Melchert's attempt to explain the absence of the expected laryngeal in the Hittite verb stem *damašš-* / *damešš-* 'to (op)press' and the related noun *dammišhaa-* 'violence, harm' further exemplifies the difficulties of the virtualist pattern of prediction (AHP: 70 f.). Not even an acrostatic paradigm like *\*ġnēh<sub>3</sub>-s-* producing *ganeš-* as per Jasanoff can "directly explain *damašš-* / *damešš-*," Melchert concludes, because the result, as per Eichner's Law, would be *\*\*damehš-* (not *\*\*damahšzi*, as per Melchert, if the *lex Eichneri* is to be obeyed: the laryngeal would have to fail to color the preceding *e*). The attempt leads nowhere.<sup>4</sup> The more obvious solution—taking the facts at face value and positing something like PA *\*Tama-s-*, which accounts for the Anatolian facts, to match the PIE "disyllabic" *\*dmā-* / *\*demā-* attested in Gk. (Hom.) prs. δάμ-νῃ-σι, etc., O.Ir. *damnaid*, Ved. *damitā* 'tamer', etc.—is unlikely to be accepted by the virtualist mindset.

I am fully cognizant that any attempt to break through the thick crust of consensus is unlikely to succeed. Yet I shall make such an attempt by taking a closer look at what evidence for the "laryngeals" there is in Anatolian, and what reconstructive inferences may actually be drawn, based on this evidence.

The evidence points to four "laryngeals" (probably, velar fricatives) in Proto-Anatolian. I will use the current labels "fortis" and "lenis" to describe the

<sup>3</sup> I discuss this at length in IF 102 (1997): 151—155. My proposal is simple: if there is no evidence for *\*h<sub>3</sub>* in Hittite, abandon the laryngeal and go with the original long vowel *\*ē* in ablaut with *\*ō*; this will get you PIE *\*ġnē-*, the cognate of which is seen in *ganeš-*, and PIE *\*ġnō-* seen in, e.g., Gk. ἔ-γνω.

<sup>4</sup> Melchert writes: "If we are permitted to assume an early secondary *\*dmēh<sub>2</sub>sti* / *\*dmēh<sub>2</sub>s-ēnti*, I believe this paradigm will lead to the attested Hittite ⟨...⟩" (AHP: 71). The derivative *dammišha-* doesn't fare much better. Melchert quotes van den Hout (GsSchwarz (1988): 310) for what he sees as the "most likely" prototype—*\*dmēh<sub>2</sub>s-sh<sub>2</sub>ó-*—and "assume[s] *\*damsH<sub>3</sub>Hó-* and then *\*damsHó-* with regular loss of [the phonemic] *\*h<sub>2</sub>/* in a cluster with three consonants ⟨...⟩ We would expect loss of [the phonemic] *\*/m/* before */sC/*. ⟨...⟩ I can only invoke influence of the base verb for maintenance of the *\*/m/*. If maintained, the *\*/m/* would be geminated before a consonant ⟨...⟩, whence *\*dammsHó-*. Anaptyxis would finally lead to *\*dammišhā-* ⟨...⟩ Obviously, the long string of hypotheses makes this entire derivation no more than a possibility," Melchert concludes his argument (ibid.). The argument is perfectly circular: a virtual IE protoform (complete with the accented suffix *\*-sh<sub>2</sub>ó-*) is designed and then inevitably reached in a succession of *ad-hoc* steps leading right up to it. Melchert does not take into consideration the C.Luw. *damašti* 'presses', but it wouldn't help anyway: the longed-for laryngeal isn't there, either.

contrast indicated by "Sturtevant's law." I find in Anatolian a plain lenis \**ɣ*, a plain fortis \**x*, a labialized lenis \**ɣ<sup>w</sup>*, and a labialized fortis \**x<sup>w</sup>*. The labiovelar fricatives \**ɣ<sup>w</sup>* and \**x<sup>w</sup>* pattern in a way similar to the labialized velar stops written in cuneiform as *ku*, *uk*, (*k*)*ku*, e.g., *hu-e-ik-k°* / *hu-uk-k°* 'slay', *hu-ni-in-k°* 'injure', *hu-wa-ar-t°* / *hurt* 'curse', *hu-wa-(a-)i°* / *hu-(i-)i°* 'run', *iš-hu-wa-* / *iš-hu-* 'spill', *ta-ru-uh-h°* / *tar-uh-* / *tar-hu-* 'overcome, vanquish', *la-a-hu-* / *le-il-hu-wa-* / *le-il-hu-* 'pour', etc. Note also the two sets of signs, very similar yet distinct in shape and function, and formerly confused by scholars, that were used in Hieroglyphic Luwian: one set for *hwi/a* (also known as REL) and the other for *hwī/a*.<sup>5</sup> This shows that the native speakers of Luwian, when devising what seems to be the autochthonous writing system for their language—the only writing system designed for an Anatolian language, as far as I know—clearly intuited a close parallelism of the two sets of sounds. These labiovelar fricatives have little to do with the so-called "third laryngeal" of the standard three-laryngeal Proto-IE. which colors the phonemic \**e* to \**o* (with the exception of Cowgill's \**x<sup>w</sup>* which included some Hittite examples, such as *hullizzi* from Cowgill's \**x<sup>w</sup>l-né-x-ti*, *hulana-* 'wool' from Cowgill's \**x<sup>w</sup>l-xnex*, and *dalukis* from Cowgill's \**dlx<sup>w</sup>gh-*, where the labial element left *-u-* next to the syllabic \**l*).

In the initial position, with the exception of \**xanT-* which occurs in Hitt. *menahhanda* 'opposite' with the "geminate" *-hh-*, and with the possible exception of the Hittite compound *huhhahanna-* which points to a "single" *-h-* in *hanna-*, I cannot be sure of the fortis or lenis quality of the laryngeal, and write it with the capital *H*. This is the problem with all obstruents in Hittite and Cuneiform Luwian: word-initially their quality remains unclear, unless disambiguated by word-internal spellings. (In Hieroglyphic Luwian there seems to be no way to discern the quality of an obstruent, except by comparison with the cognate words of other Anatolian languages where those are attested.) Thus, based on the clear evidence described above, the lenis laryngeal (PA \**ɣ-*, \**ɣ-*) appears in PA \**ɣanna-* 'grandmother' (Hitt. *hanna-*, C.Luw. *hanna-* and Lyc. *xāna-*) corresponding to PIE \**ano-* in Lat. *anus* 'old woman', OHG *ana* 'grandmother'; word-internally perhaps in PA \**piya-* 'fear, awe'<sup>6</sup> (but this is uncertain because attested only in Luwian, including Luwian loans, such as proper names and divine epithets, in Hittite, e.g., C.Luw. *pihai-* 'to revere' and H.Luw. *piha-* in, e.g., the participle *pihami-* 'revered' and possibly in the Lycian proper names *Pigesere*, *Pixesere*).

The fortis "laryngeal" appears word-initially in PA \**xanT-* 'front' (Hitt. *hanza*, C.Luw. *hantiš*, and derivatives such as Hitt. *hantezzi(ja)š* 'first', C.Luw. *hanteleš* id., Lyc. *xāta-wata-* 'ruler', etc.), cf. PIE \**ant-i* in Gk. *ἀντί*, Lat. *ante*, etc.

Word-internally it occurs in PA 1. sg. active ending \**-xa* (Hitt. *-hhé* 1 sg. *hhi*-conj. present probably from PA \**-hha* + \**-i* borrowed from the *mi*-conj.;

<sup>5</sup> See Hawkins—Morpurgo-Davies // *Kadmos* 32 (1993): 50—60, and Hawkins, *StBoT Beih.* 3 (1995): 75.

<sup>6</sup> On the meaning and derivation of Luwian *pihai-* see my *IHRedux* (1998): 161, with lit.

C.Luw. 1 sg. pret. *-(h)ha*, H.Luw. *-ha*, Lyc. *-xā*, *-gā*) corresponding to PIE 1 sg. pf. *\*-a* in, e.g., Gk. *οἶδα*, etc.; PA *\*Hauxa-* 'grandfather' attested in Hitt. *huhha*-C.Luw. *huuha-*, Lyc. *xuga-*, cf. PIE *\*auo-* in Lat. *avu-s*; PA *\*lax-* 'military campaign, troop' (in Hitt. *lahha*- id., the verb *lahhiia-* 'to campaign', C.Luw. *lahhi*- id.) whose correspondence to Gk. *λαός* is sometimes disputed but seems likely, even if from PIE *\*lā-uo-s* with a suffix; PA *\*nax-* 'fear, worry' in Hitt. *nah-mi* 'I am afraid', participle *nahh-anza*, noun *nah-šaratt-* 'fear', C.Luw. 3 sg. pres. *nahhuwai* 'is afraid' (acc. to Melchert, a denominative from a noun *nahhuwa-* 'fear'), compared with O.Ir. *nár* 'timid, diffident' < *\*nā-sr-o-*, O.Ir. *náire* 'diffidence' < *\*nā-sr-iā*.

The lenis labialized "laryngeal" occurs word-initially in PA *\*γwai-* / *\*γwi-* 'to run', if we take seriously the C.Luwian reduplicated stem *hu(u)u/i/ehu(u)ia-* 'run, march'; the non-reduplicated stem is attested in Hitt. *hhi*-conj. verb *huwaa* 3 sg. pres. act., *huehhun* 1 sg. pret. from an earlier *\*hwaj-hhun*, 3 sg. pret. *huwaaš* from *\*hwaj-s* and 3 pl. pret. *huwaa* from *\*hwajer*, in all of which the root appears in the *a* grade, 3 pl. pres. *huianzi* [hwianzi], pple *huian*, causative *huinu-*, etc.; C.Luw. *huuia-*, caus. 1 sg. pret. *huinuwahha*; H.Luw. *hwi/a-i(a)-* id., and the reduplicated suffixed *i*-conj. stem (PES)-*hwi-hwi-sà-* 'run, march'; these without a secure PIE cognate (the IE protoform of Hom. *ἄησι* '(wind) blows', Ved. *vāti* id., etc., probably a cognate of Hitt. *huwant-* 'wind', need not be related to PA *\*hwi-* 'run'). The word-medial lenis *\*γw* is illustrated by PA *\*layw-* alternating with *\*lyw-* 'pour', attested in Hitt. *la(a)hu(wa)-* (*hhi*-conj.) 'pour' (imperative *laauh* with the sign *VH* probably to be read [uh]), redupl. *lelhuwa-* id., C.Luw. *lahunniha* 1 sg. pret. a denominative stem (it is not clear whether the pple *laaúnaimiš* belongs to the same stem), corresponding to PIE *\*leu-* reflected in Myc. *re-wo-to-ro-ko-wo* [lewotrokhōwoi], cf. Hom. *λοετροχόοι* reflecting the *o*-grade *\*low-*, Gk. *λοέω* from *\*lou-éi-ō*, with the suff. *\*-eje-* and the *o*-grade of the root. (The Mycenaean form is perfectly viable without assuming any metathesis, if we drop the notion of vowel coloring.)

The fortis labialized "laryngeal" *\*xw* is shown by PA *\*Paxw-r* 'fire', attested in Hitt. *pahhur* / *pahhuwar*, gen. sg. *pahhuenas*, and C.Luw. *paahuur* (with the "lenited" *-hw-* or just omitting the sign *VH*, we won't know until more attestations are found); this *r*-stem neuter (cf. *waatar* / *úitenas* for a parallel declension) is matched in IE by Gk. *πῦρ* and its cognates. Another example of the fortis labialized *\*xw* in the medial position may be furnished by PA *\*T(a)rxw-* 'to overcome', if the Middle Hittite writings 1 sg. pret. act. *taruhhun* and the supine *taruhhuwan* be accepted at face value (which they should be). In Hittite, this is a *mi*-conj. root present (1 sg. act. OH *tar-uh-mi*, 2 *tar-uh-ši*, 3 *ta-ru-uh-zi*, 1 pret. *tar-hu-un* (MH *ta-ru-uh-hu-un*), imper. act. *tar-hu-id-du*, pple. *tar-hu-an*, etc.; *tarhueešš-* 'become victorious'); the Hittite name of the god *Tarhunt-* and the matching epithet *tarhuili-* 'victorious' also belong here, as do the H.Luw. theonym *Tarhuzasa*, surely to be pronounced [Tarhhunts], and Lyc. nom. sg. *Trq(q)as*, oblique stem *Trqqāt-*; this PA root corresponds to PIE prototype of Ved. *á-tārīt*, etc., *tūrvasi*, *turule*, etc.



In a vast majority of Anatolian words with the "laryngeals" in them it is impossible to discern the quality of the laryngeal, but it is at least possible to tell whether they are labialized or plain. Here is a representative sampling: (plain) PA *\*erHa-* / *\*rHa-* 'border, outside' (Hitt. *irhaš* / *arha*, H.Luw. *arha*), PA *\*ésHr-* / *\*sH(a)n-ás* 'blood', fact. *\*sHr-nū-* 'to bloody' (Hitt. *eeshar*, gen. *išhanaas*, fact. *išharnu(w)-*, C.Luw. *aashar(ša)* n. 'blood', fact. *aasharnu-*) compared with Ved. *asṛ-k* (V) / gen. sg. *asnás* (AV) (note the absence of any trace of a laryngeal), Toch. B *jasar*, A *ysār*, Lat. *san-guin-is*, wherever the *-guin-* is from; PA *\*-Ha* enclitic 'and' in C.Luw. *-ha* '-que', cf. Luw. *kuišha* 'quisque' and Hitt. *kuišša* id., *kuišta* 'quidque', *uugga* 'and I'; PA *\*Hab-a-* 'river / water' (Hitt. *hapaa* 'to the river', C.Luw. *haapis* 'water') matched by O.Ir. *aub*, Cymr. *afon* 'river' < PIE *\*abh-*; PA *\*Haran-* 'eagle' (Hitt. *haraš* 'eagle', gen. *haaranaš*; Luw. <sup>MUSEN</sup>*harraniš* a bird), corresponding to the prototype of Gk. *ὄρνις*, *ὄρνεον* 'bird', OHG. *aro* 'eagle'; PA *\*Hassa-* 'hearth' (Hitt. *hašša-* 'hearth', C.Luw. *haššanitti-*, Lyc. *xahati* abl/instr. 'altar') comparable to Osk. *aasa-*, Lat. *āra* 'altar'; PA *\*Hast-aṣ-* 'bone' (Hitt. *haštai* 'bone', C.Luw. *haašša* id.) matching PIE *\*ost-*, the prototype of Gk. *ὀστέον*, Lat. *os*, Arm. *oskr*; PA *\*Hatt-* 'cut' (Hitt. *hatt-* / *hadd-* 'hit with a sharp object, cut' with the fortis *-tt-* / *-dd-* affricated to *-zz-* before the suffix *\*-je-* in *hazzi(e)i-* / *hazzia-* 'strike repeatedly, play a musical instrument', C.Luw. *ḡiṣhat-tara-* 'hoe' from the same root, H.Luw. *ha-ti-* / *haraṣi-i-* 'strike, write', *ha-zi-* 'write' < *\*-ske-*, and other derivatives); PA *\*Hau-* 'sheep, ewe' (C.Luw. *haauiiṣ*, Lyc. *xawā* acc.; no Hittite attestation as yet!) cognate with Gk. *ὄvis*, Lat. *ovis*, etc.; PA *\*Hila-* 'courtyard, temple yard' (Hitt. *hila-*, Lyc. *qla-* 'courtyard, sacred precinct'); PA *\*sHai-* / *\*sHi-* 'bind' (*α*-grade *\*sHai-* / zero-grade *\*sHi-*) (Hitt. *hhi-* conj. *išhaai* 3 sg. pres. act., pl. *išhianzi*, C.Luw. redupl. *hišhiia-* id., Hier.Luw. VINCIRE *hi-s(ā)-hi-mi-n(a)* participle rather than 1 pl.?) compared with Ved. *syāti*, *si-nā-ti* id.; (labialized) PA *\*H<sup>w</sup>lana-* 'wool' (Hitt. *hulana-*, C.Luw. *šīG-laniš* id.) cognate with the prototype of Ved. *ūrmā*, Lat. *lāna*, Lith. *vilnos*, etc.

Some words are attested only in Hittite, and reconstructing the PA shape is technically an impossible procedure. In spite of that, these words have been used in comparative studies, and attempts to find comparanda for them have been made. Such is the already mentioned Hittite *hullizzi* directly compared with Gk. *ὄλλυσι* and derived from the laryngitis-stricken PIE *\*h<sub>3</sub>l-né-h<sub>1</sub>-ti* (note, however, the obvious lack of any trace of *\*h<sub>1</sub>* in Hittite). Such is Hittite *walh-* (*mi*-conj.) 'strike', compared directly with Gk. aor. *ἐάλω* (pres. *ἀλίσκομαι* 'be captured, vanquished, slain') and remanded to PIE *\*uelh<sub>3</sub>-* with the "3rd laryngeal" owed to Gk. *-ω* in *ἐάλω*. Such is the Hittite hapax *hašterza*, which was compared with Gk. *ἀσθή*, etc., even if the final *-za* is not easy to explain. Such is Hitt. *pahhaš-mi*, etc., 'protect' (with no certain cognates anywhere else in Anatolian, the meaning of C.Luw. *páttu*, *páddu* a mere guess), corresponding to Lat. *pāscō* / *pāvi*, Ved. pres. *pā-ti*, RV. aorist subj. *pāsati*, OCS. *паша*, etc. Others include the Hittite suffix *-ahh-* (of the *hhi*-conjugation) used to form factitive verbs from thematic adjectives only, e.g., Hitt. *newahhun* 'I renewed', compared with Lat. *-ā-* in *nov-ā-re*, OHG. *-ō-* in *niuwōn*, etc.; Hitt. *harkiš* 'white', related to

Gk. ἀργός 'bright', ἄργυρος 'silver', Lat. *argentum* 'silver', Ved. *árjuna-* 'shining', Toch. B *ārkwī* 'white'; *palhiš* 'wide' and derivatives *palhašti-* 'width', *palhanu-* 'factive 'to widen', etc., compared with Gk. πλατύς, Lith. *plónas* 'thin', etc., Hitt. *šanh-* / *šanah-* 'look for, try, claim' compared with Ved. *sanóti*, aor. *asāniṣam*, ppp. *sātá-* 'gain', OHG. *sinnan* 'strive for', Hitt. *išhamihhi* / *išhamai* (3 sg. prs.) / *išhamianzi* (possibly from PA *\*sHm-a-i-* [a-grade] / *\*sHm-i-* [zero grade]), compared with Ved. *sáman-* 'song', Hitt. *happin-ant-* 'rich', etc. *happin-ahh-* 'make rich' (suggesting a thematic *happina-* \* 'rich'), *happinešš-* 'become rich', compared by some with Lat. *op-s* 'riches' (Laroche) and by others with Gk. ἄφειος 'riches', ἀφνειός 'rich' (Benveniste), with different conclusions. Hitt. *hartagga-* 'wolf' or 'bear' has been accepted as a relative of Gk. ἄρκτος 'bear', Ved. *ṛkṣa-*, etc., helping solve the problem of PIE *\*p*. Hitt. *hueš-* / *huiš-* / *huš-* 'live', also without other Anatolian cognates, has been derived from the laryngealist *\*\*h<sub>2</sub>ues-* (as in Hom. aor. ἄεσα, Ved. *vásati*, Go. *wisip*, etc.); Hitt. *huek-* / *hukk-* 'slay' and its nasal-infixing derivate *hunenk-* 'injure, harm' (with its word-initial labiovelar fricative *h<sup>w</sup>-*) has been obtained from PIE laryngealist *\*\*h<sub>2</sub>uik-* as in Lat. *uic-i-t* and its nasal-infixing counterpart *\*\*h<sub>2</sub>ui-n-k-* in Lat. *vincit* (thematized). Perennial problems are caused by such Hittite-only cognates as the previously mentioned *mehur*, *hékur* 'peak, summit' or 'mountain temple' (yet another object of Eichner's theoretical exercises) which is likely to be a loan eventually going back to Sumerian É.KUR, as per Jaan Puhvel, Hitt. *pehutezzi* 'carries away' which has suffered through many explanation attempts, *héeuš*, *héiawaš* 'rain' of no credible pedigree, *huitti-* (a-med.) / *huez-* (tta-med.) 'pull, draw'. In the case of *huitti-*, at least, it is clear that it has an initial labiovelar fricative, but the absence of affrication before the suffix *\*-ie-* has generated some controversies, releasing the spectre of a laryngeal obligingly blocking the affrication ("< *\*h<sub>2</sub>uedh<sub>2</sub>-ie/o-* via *\*H<sub>2</sub>étie/o-*").<sup>7</sup> Hitt. *henk-* (1) — a *mi*-conjugation active meaning 'to mete out, apportion' with its derivative *henkan* '(ill) fate, death', has been connected with Gk. ἀνάγκη 'necessity', M.Cymric *anghen* id., O.Ir. *écht* 'deadly blow' from something like PIE *\*\*h<sub>2</sub>(e)nk-tu-*, while *henk-* (2), a *tta*-medium tantum meaning 'to bend, bow', has been compared with Gk. ἄγκών 'elbow', Lat. *uncus*, etc. The Hittite verb with its sequence of *h* + *e-* has also required an explanation through lengthening due to both root presents being acrostatic, the lengthening blocking the coloring.<sup>8</sup>

Then there are the Anatolian examples which lend no support whatever for the laryngeals posited by the fact-blind "theory." The famous ones, beside the already mentioned Hitt. *ganeš-* 'recognize', *tamašš-* 'oppress', *daai* / *daaš* 'take', *daai* / *da(a)iš* 'place, put', *paš-* 'swallow', Hitt. *aiiš*, Luw. *aašš-* 'mouth', are Hitt. *laaman* 'name' (from PA *\*ná-m<sub>2</sub>*, cf. PIE *\*nō-m<sub>2</sub>*), H.Luw. *a-la<sub>5/4</sub>-ma-za* (from PA

<sup>7</sup> See Melchert, AHP: 69.

<sup>8</sup> See Oettinger, Stamm.: 177 for the virtual acrostatic root prs. *\*\*h<sub>2</sub>énk-ti* : *\*h<sub>2</sub>énk-nti*, was lautgesetzlich zu heth. [hēkzi] : *\*hānkanzi* und dann infolge der Alternation *θ/n* normiert als [hēkzi] : [hēnkanzi]."



\**n̥-mán-s*, cf. PIE \**n̥-mén-s*), with nothing but the virtualist algebra to justify the protoform \*\**h<sub>1</sub>néh<sub>3</sub>m̥n̥*); Hitt. *taii-* 'steal', allegedly from \*\**(s)téh<sub>2</sub>-ie-*, Hitt. *ti(i)e-* 'step', allegedly from \*\**sth<sub>2</sub>-ie-*; H.Luw. *ta-* 'put up' and Lyc. *stta-* id. allegedly from \*\**steh<sub>2</sub>-*; PA \**an-je-* 'to work' (Hitt. *anie-* / *aniia-*, Palaic *ani-* / *aniia-*, C.Luw. *anni-* / *ani(e)ia-* id.) allegedly from \*\**h<sub>3</sub>n̥-je-* (cf. \*\**h<sub>3</sub>én-os* > Lat. *onus* 'burden'); Hitt. *aa-* 'be hot', fact. *inu-* 'heat up', allegedly from \*\**h<sub>2</sub>ei-* seen in Gk. *αἶθω* 'kindle', Lat. *aedēs* 'home, hearth', Ved. *édhas* 'fire wood', etc.; Hitt. *ariia-* 'to ascertain through an oracle' remanded to \*\**h<sub>2</sub>r̥-je-* from the root seen in Gk. *ἀρ[ρ]ᾶ* 'prayer' < \*\**h<sub>2</sub>r̥uéh<sub>2</sub>*, Lat. *ōrō* from \*\**h<sub>2</sub>r̥-eh<sub>2</sub>-yo-h<sub>2</sub>*; Hitt. *arnu-* 'set in motion', allegedly from \*\**h<sub>3</sub>r̥-néu-* as in Ved. *r̥-nó-ti*, Gk. *ὄρ-υυ-ται* 'is stirred up'; PA \**iē-* / \**i-* 'do' (Hitt. *i(e)i-* / *ia-* 'do', C.Luw. *a(a)-* id., H.Luw. *a-* id.) allegedly from \**ieh<sub>1</sub>-* / *ih<sub>1</sub>-* (the complete "disappearance," or, to be precise, the absolute *no-show* of the "first laryngeal" in Anatolian is now recognized nearly by all); Hitt. *išpaai* 'eats her/his fill' (3 sg. pres.), pl. pret. *išpiier*, alleged from \**speh<sub>1</sub>-* 'thrive' found in Ved. *sphāti*, Lat. *spē-s*, OCS *ѣѣ-ти*; Proto-Luwian \**Thuwatar-* 'daughter' (H.Luw. *tu-wa/i-tara/i-* id., Lyc. *kbatra-*) from the "virtual" \*\**dhugh<sub>2</sub>ér-* allegedly reflected in Gk. *θυγάτηρ*, Ved. *duhitár-*,—these are among the best-known examples of null evidence for the posited laryngeal.

What is striking about this fact-blind approach is its circularity: the IE. protoform, one or more elements of which have been set up in conformity with aprioristic structural requirements, is projected from PIE, where no such elements are found, and then every bit of ingenuity and casuistry is used to justify the advance projection. In the Introduction to his "Anatolian Historical Phonology" (p. 1), Melchert writes: "[T]he starting point for our account is not directly attested but merely reconstructed. Furthermore, part of the basis for this reconstructed stage is the very set of languages whose attested form we are trying to explain. (...) [The] records are at best incomplete, and at worst fragmentary. (...) We must *deduce* the synchronic phonologies of these languages from the texts, and in doing so we are unavoidably influenced by (...) our expectations based on the initial reconstructed stage from which we assume these languages are derived. The dangers of near-circularity in such a procedure are evident, but we do have some controls available. One may judge [one's own] proposals (and competing ones) first of all on the basis of the typological plausibility of both the synchronic systems and the diachronic changes assumed. One may also evaluate the overall scheme in terms of its internal consistency and coherence."

The circularity here is not "near-circularity": as is obvious from the sample arguments by Eichner, Jasanoff, and Melchert himself, the circularity is complete, and no amount of typological cross-checking can undo the circle. The same may be said of internal consistency and coherence: starting out with what we expect to find and finding it exactly where we said we would find it shows perfect consistency and cohesion. The whole enterprise, however, is reminiscent of H. C. Andersen's tale "Keiserens nye Klæder" ("The Emperor's New Clothes"): the two entrepreneurs, who had promised to make the most

beautiful clothes for the Emperor, did keep their promise, after their fashion. They were perfectly consistent. But, as the child said, pointing at the newly outfitted Emperor strutting forth in the solemn procession—"He has nothing on!" There is no laryngeal in Luw. *tuwatar-* or Lyc. *kbatr-*, none in Gk. *θυγάτηρ* or *μήτηρ* or *πατήρ* or anywhere at all in non-Anatolian Indo-European, none in Hitt. *eš-zi* 'is' / *aš-anzi* 'are', none in the suffix of *hullizi*, none in Hitt. *arnuzzi* 'sets in motion', none in Hitt. *damašš-* '(op)press', none in Hitt. *ganešzi*, none in *laaman*, and so on, and so on. The hidden logic of virtualist "discovery"—"I put it there; therefore it is there"—is roundly circular.

To break this vicious circle, we need continuously to re-examine our working assumptions, most of which we hold unconsciously. We need to loosen the grip of aprioristic structuralist notions on our minds. This will free us from the ridiculous enterprise of the structure-imposed positing of unattested elements whose absence we are then forced cleverly to justify. It will rid us of our present orientation toward considering the phonemic status of the sounds we reconstruct, for we shall recall that it is not the phonemes that change but only allophones, the actual sounds as they exist in their contexts, while the phonemes are linguistic abstractions which exist—if they can be said to exist at all—outside of time and outside of change. Thus, the consideration of whether the protolanguage had only the vowel phoneme *\*/e/* or also the phonemes *\*/a/* and *\*/o/* will fall away as irrelevant. We shall be freed from the necessity of explaining away virtually every instance of *\*a* and many instances of non-ablauting *\*o* in PIE as due to the presence of a chimerical *\*h<sub>2</sub>* or *\*h<sub>3</sub>*, and we shall cease to be greatly bothered by the fact that the sound *h* in, e.g., Hitt. *henk-* (mi-conj. act.) 'to apportion', *henk-* (med. tantum) 'to bow', *hénkan* 'fate' fails to "color" the adjacent *e* to *a* while a majority of the vowels neighboring on *h* seems to be *a*. So what, we shall say. There are also lots of *a*'s not adjacent to any *h*'s at all. We shall blame the timbre of the vowel on the "laryngeal" no more than we ascribe vowel-coloring powers to the English [θ] just because the vowel [ɛ] does not appear after [θ] (except in one English word only, viz. *theft*) while *thick* and *thin* and *thistle* and *thimble* all have [ɪ]. We shall not suspect virtually every long vowel of PIE of being compensatorily lengthened by a once-present "laryngeal." What does it matter if Lat. *pāscō* and Ved. *pā-ti* correspond to Hitt. *pahh(a)š-*. The fact is, Ved. *a-pā-t*, Gk. *πῶ-θι* corresponds to Hitt. *paš-* with no laryngeal at all. Why could the vowel of *pahh(a)š-* preceding *hh* have not been long to begin with? On the other hand, we know that consonants other than *h/hh* disappeared, resulting in compensatory lengthening of the vowels preceding them, and we also know that vowels were lengthened by processes other than the disappearance of consonants, take all those Narten presents, for example. As a result, we shall pay more attention to each individual case, without having to squeeze it into the Procrustean bed of some algebraistic formula.

Second, we shall take care to reconstruct whole words instead of disjointed roots and suffixes sliced apart and spliced together at will. We shall recall that

roots, suffixes, and endings are the linguist's abstractions and that speakers operate with words—including those surges of creativity, whether unconscious or conscious, when they come up with new analogical forms. If we take care to reconstruct whole words we shall have more real reality and less virtual reality in our reconstructions.

Third, we shall be meticulous in our subgrouping practices and recognize that Proto-Anatolian and Proto-Indo-European have enough innovations shared among the two respective subfamilies separately from each other to ensure that their respective protolanguages are reconstructed as siblings that derive from a common parent, long known as Proto-Indo-Hittite. On the one hand, we shall reconstruct Proto-Indo-European much as Karl Brugmann did, without any laryngeals whatsoever. On the other hand, we shall reconstruct Proto-Anatolian with the laryngeals where they do indeed appear, and leave blanks where they do not. These realistic reconstructions will in turn enable us to reconstruct Proto-Indo-Hittite properly and at last see its external affinities, hitherto concealed by false reconstructions.<sup>9</sup>

<sup>9</sup> Proto-Uralic is the nearest relative, see Chapter 8 of my forthcoming book «Introduction to Indo-Hittite», with lit.