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## TWO PROPERTIES OF PIE $*h_3$

**Abstract.** Some new examples of posttonic voicing/lenition by  $*h_3$  are discussed, together with the usefulness of this property in accounting for set roots in Vedic with unaspirated root finals. Along the way, a possibly new example of aspiration of a voiced stop by  $*h_1$  is indicated. The second property of  $*h_3$  is as anlaut consonant in PIE reconstructions currently having syllabic  $*u$  as anlaut.

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### 1. *αὐδή* ‘voice, sound, speech’ and posttonic voicing/lenition by $*h_3$ in Vedic, Greek, Latin, Slavic and Anatolian

The difficulty of relating Gk. *αὐδή* to Ved. *vádati*, ppp. *uditá-* ‘speak, say, utter, tell, report’, OCS *vaditi* ‘accuse’ is noted by Beekes (2010: s.v.), who rejects Derksen’s (2008: s.v. *vaditi*) solution  $*h_2uedh_2-$  for the Slavic and Vedic words because it implies aspiration of the Vedic root final. Kümmel (LIV<sub>2</sub>: 286), reconstructing  $*h_2uedH-$ , also points out that *H* is unlikely to be  $h_2$  for the same reason.

It is also unlikely to be  $h_1$  since the latter is probably also an aspirator of Vedic voiced stops if we can accept Kuipers’ derivation of Ved. *sadhás-(tha-)* <  $*sedh_1e-s-$  beside Lat. *sēdēs* <  $*sed-eh_1-s-$ , as reported by Lindeman (1987: 93) and, with particular enthusiasm, by Schrijver (1991: 376) – which we probably can, despite the lukewarm reception accorded it in some quarters, such as de Vaan (2008: s.v. *sēdēs*) and especially Mayrhofer (EWAia 2: s.v. *sadhástha-*), who invokes only  $h_2$  while at the same time mentioning the (therefore somewhat bizarre) comparison with Lat. *sēdēs*. However, it is well known that Mayrhofer did not believe in aspiration by  $h_1$ . I find convincing (i) Schrijver’s (1991: 376) analysis of Lat. *sēdēs* as partly deriving from a  $h_1$ -stem, as also his table of the prehistoric  $h_1$ -stem declension showing a substantial proportion of forms in which the laryngeal is in contact with the root final consonant (ibid. p. 371) and thus also (ii) the proposition of aspiration by  $*h_1$  in *sadhás-(tha-)*.

Further, a second example of aspiration of a voiced consonant by  $h_1$  emerges from the rejection by Martirosyan of Arm. *cnawt* ‘jawbone’ from his 2010 etymological dictionary and thus also of the traditional connection of the Armenian word with Gk. γένυς ‘jaw’, YAv. du. <sup>+</sup>*zanuua*, Lat. *gena* ‘cheek’, OIr. *giun*, *gin* ‘mouth’, MWel. *gen* ‘cheek, chin’, Goth *kinnus* ‘cheek’, Toch. A du. *śanw-e-m* ‘cheeks’, Ved. *hānu-* ‘jawbone’, still cited by Beekes (2010: s.v.), which can now all be derived from PIE  $*g_1h_1énu-$ .<sup>1,2</sup>

Although Beekes (1995: 126) claims that any laryngeal following any stop yields an aspirated stop in Sanskrit with [± voice] according to the voicing of the original stop (doubts are expressed about the participation of  $p > ph$ ), I think the traditional interpretation of  $*h_3$  as a voicer of stops, not an aspirator, is correct, doctrinaire positions on the absence of voicing in PIE notwithstanding. Indeed I have managed to assemble a small number of examples in which (only) posttonic  $*h_3$  changes an immediately preceding PIE tenuis into the corresponding PIE media (preglottalized voiced stop) in Vedic, Greek, Latin, Celtic and Slavic. The examples, aside from (1) the well known Ved. pres. *píbati* ‘drink’ : perf. participles *papivám̐s-*, *pītá-* ( $*ph_3i-$ ) : Lat. *bibō* (with analogical initial), Gaul. *ibeti-s*, are (2) Gk. ὄγδοος ‘8<sup>th</sup>’ : ὀκτώ ‘8’ (perhaps  $*h_2ók_1th_3-uh_2o-$  :  $*h_2ok_1th_3-éh_1$ ); (3) Gk. κύρβ(ε)ις ‘rotatable inscribed pyramid’ : καρπός ‘wrist’ : ( $*k_2órph_3is$  with  $*o > u$  by Cowgill’s law followed by delabialization :  $*k_2rph_3ós$ ) : Lat. *corbis* ‘basket’, Ml. *corb* ‘car’, Russ. dial. *korób* ‘belly’ (with acute), whence Russ. *koróbit*<sup>3</sup> ‘bend, warp’, ( $*k_2erph_3-$  ‘turn’, cf. LIV<sub>2</sub>: 392), (4) Gk. κτύπος ‘loud noise’ : ἐργύδουπος ‘loudsounding, thundering’ also, with originally accented augment, aor. ἐγδούπησαν ( $*-kth_3(e/o)up-$ ). For this reason also I reconstruct Gk. κότος ‘grudge, hatred’, Ved. *śátru-* ‘enemy’, Russ. dial. *kotorá* ‘quarrel, strife’, OIr. *cath* ‘battle’ with anlaut (i.e. pretonic)  $*k_1h_3-$ , where it neither voices nor aspirates the stop but depalatalizes it in the manner of a resonant in the Slavic  $o$ -grade while having no effect on the palatal feature of the stop in the Vedic  $e$ -grade (see Kortlandt 1978) and of course yielding  $-a-$  in the Celtic zero grade (Woodhouse 2008: 21f.; 2011: 156f., 164 n.15, 179; 2012: 160162).

Given the semantic parallel of a common origin for words signalling such divergent disabilities as Ved. (ŚBr.) *kaḍá-* ‘mute, hoarse’ and Goth. *halts* ‘lame’,

<sup>1</sup> On PIE  $Ch_1é-$  > Toch. *Ca* see Beekes 1988a: 85, 87 (PIE  $*é$  > Toch. *a* and PIE “ $CHV >$  [Toch.] *CV*. No special developments.”).

<sup>2</sup> My PIE contains two series of tectals: prevelars = palatovelars  $k_1, g_1, g_1^h$ , subject to environmentally conditioned loss of the palatal feature, and backvelars  $k_2, g_2, g_2^h$  with environmentally conditioned labialization (Woodhouse 1998; 2005); a factual demonstration of this latter peculiarity will, I hope, shortly become available.

<sup>3</sup> A better derivation, as I now see, is directly from the PIE singular  $*kórph_3-ei$  having the same structure as  $*h_{1/3}ók-ei$  (:  $*h_{1/3}k-énti$ ) deduced for the singular stem of Hitt.  $\bar{a}k-^i/akk-$  ‘die, be killed’ by Kloekhorst (2008: s.v.), a structure we shall meet again very soon in this paper (p. 253).

which seem to be related to Gk. *κλαδαρός* ‘infirm, invalid’ etc. (cf. Woodhouse 2009: 89), I think it is possible to obtain a fifth example of conditioned voicing by  $*h_3$  by deriving Slavic  $*slēp-$  ‘blind’ and Sl.  $*slāb-$  ‘weak’ from the splitting of an ablauting paradigm  $*slōph_3$  ‘infirm’ with a similar pattern to the one Beekes (1995: 190) proposes for PIE  $*sóm$  ‘one’ and on the assumption that the lengthened grade inhibits acuting by Winter’s law by eliminating the preglottalization just like any other laryngeal (see Kortlandt 1985: 115 on the loss of laryngeals in contact with a preceding lengthened grade vowel), thus:

nom.	$*slōph_3$	>	$*slō?b$	>	$*slāb$	}	>> $*slāb$ ‘weak’
acc.	$*slēph_{3,m}$	>	$*slē?b$	>	$*slēb$		
dat.	$*slph_{3-}éi$	>	$*slp-$	>	$*silp-$	}	>> $*slēp-$ ‘blind’
loc.	$*slēph_{3(i)}$	>	$*slē?b$	>	$*slēb-$		

The locative was taken into Germanic in the sense  $*‘time/state of weakness/sightlessness’$  hence, e.g., OE *slēpan* ‘lie numb/motionless; sleep; die’ eventually replacing OE *swefan* ‘sleep; rest; sleep in death’ (cf. Boutkan/Siebinga 2005: s.v. *slēpa*).

Consequently, a reconstruction with medial  $h_3$  should provide for the set nature of Ved. *vádati* without incurring the penalty of aspiration. Evidently the auslaut of Gk. *αὐδή* is not against this reconstruction otherwise Kümmel (l.c.) might have felt constrained to opt for medial  $h_1$  rather than the more inclusive  $H$ . But perhaps we can do better than this: Eichner (1988: 131) has examples of  $*h_2eh_3 > \bar{o}$  but none of  $*h_3eh_2$  so, on the principle that of the two colouring laryngeals the one that lengthens the vowel also colours it, the outcome of  $*h_3eh_2$  could conceivably be  $*\bar{a} > \text{Gk. } \eta$ .<sup>4</sup>

But that is not the end of the story. It is far from clear that Derksen’s (2008: s.v. *vaditi*) complete separation of Russ. *váditi* ‘slander, deceive, lure, spend time’ from OCS *vaditi* ‘accuse’ and other Slavic words meaning ‘accuse’, ‘quarrel’, ‘hamper’, ‘report’ and the like is justified. Instead, the Russian word probably represents a conflation of two different etyma, the meaning ‘slander’ belonging with the ‘accuse’ set under discussion while ‘lure’ and ‘spend time’ correspond to the form derived from Slavic *voditi* ‘lead, conduct’, the meaning ‘deceive’ being reconcilable with both. Sln. *váditi* ‘anzeigen, verklagen’ (i.e. ‘denounce, accuse’) (Pleteršnik 1894–1895: s.v. *váditi/2*) and the Russian word seem to point to an

<sup>4</sup> In view of my suggestion that anlaut  $*h_3eh_2l-/*h_3h_2l- >$  non-Anatolian, non-Indo-Iranian  $*\bar{o}l-/*ol-$  (Woodhouse 2011: 163) it may be that  $*h_3eh_2 > \bar{a}$  only in auslaut and/or inlaut. Alternatively there may be no connection between Hitt. *hahhal* ‘palm of hand’ and Lat. *ulna* ‘elbow’.

acute (thus too Kortlandt 1975: 65, although SCr. *vàditi* ‘take out’ does not seem to belong here) by Winter’s law, as Derksen (l.c.) also recognized. Thus, Slavic *vàditi* can reflect a singular *\*h<sub>2</sub>uód-ei* with medial preglottalized *\*d*, i.e. the same structure as I now prefer for Russ. *koróbit’* (see n. 3 above).

We then see that Ved. *vádati*, the first syllable of *avódhī* < *\*h<sub>2</sub>eu-*<sup>5</sup> and Sl. *vàditi* provisionally < *\*h<sub>2</sub>uód-ei* can all point to original accent on the root, consequently a reconstruction with *h<sub>3</sub>* also allows us to posit an etymon with medial posttonic *\*th<sub>3</sub>* > preglottalized *d*. This will of course entail that any pretonic *d* in the paradigm of Ved. *vádati*, e.g. pf. *ūdimá*, ppp. *uditá-*, prec. *udyāsam*, caus. *vādáyati* will be analogical, just as the aspirates in Ved. *grbhñāti*, *mathnāmi*,<sup>6</sup> (Br.) *grathnāti* all < *\*C(R=C)RC-néH-* are analogical to forms like the respective ppp. *grbhītá-*, *mathitá-*, *grathitá-*, i.e. in each case a change from plain to voiced or plain to aspirated.

It has been proposed that the semantics of Lat. *vetō* ‘forbid’ may derive from *\*‘say (not)’* (Rix apud de Vaan 2008: 672 s.v. *ve/otō*), or perhaps better *\*‘sternly or threateningly say (not)’* (= *\*‘hamper?’*). Further, de Vaan (l.c.) finds there is a good chance that Lat. *vetō* is a later form of Nonius’ *votō votāre* which requires reconstruction as *\*uotH-éi-e/o* with closed first syllable to take care of preservation of the rounded vowel. De Vaan (l.c.) sets *\*H* = *\*h<sub>2</sub>* apparently so *\*uoth<sub>2</sub>-éi/e/o-* can

<sup>5</sup> Beekes (2010: s.v. *avódhī*) adduces the zero grade form *vódéω*, proving that anlaut *avód* represents the *e*-grade. It is extraordinary that LIV<sub>2</sub> is not alone in generally (i.e. inconsistently) preferring the two counterfactual developments *HRC-* and *RHC-* (which infringe the principle that PIE words begin with nonsyllabic sounds) to factual *HRC-* and *RHC-*, the latter being Beekes’ (1988b) law, a law I was recently criticized by an anonymous reviewer for employing. Beekes’ only mistake was not to realize that his new law, as applied properly to Latin, disproved Lehmann’s idea that anlaut *\*r-* was impossible in PIE (Woodhouse 2011: 158–162) in favour of Clackson’s (1994: 33, see also p. 200) conclusion that Anatolian, Armenian and Greek may have shared “an areal tendency to avoid initial *r-*”. In fact I think these three language systems, plus Phrygian, also shared a tendency to keep the three PIE laryngeals in something approaching their original condition for far longer than other IE languages, i.e. as three distinct resonants/vowels in Greek and Phrygian and as obstruents (fricatives, with audible turbulent airflow) in Hittite (presumably) and Armenian. It is not particularly remarkable that PIE *\*HRV-* yielded for the most part a cluster *\*HR-* in Greek in which *\*R* remained nonsyllabic so that *\*H* was vocalized in Greek.

<sup>6</sup> From the limited list of believable cognates cited for *MATH<sup>1</sup>* ‘rob, wrest away’ and *MANTH<sup>1</sup>* ‘stir, disturb’ in EWAia (s.vv.), viz. Toch. AB *mānt-* ‘injure, separate’ for the former and Lith. *męsti* ‘stir’, *mentė* ‘trowel, shovel, mixing paddle’, OCS *mętetъ* (l. *mętetъ*) ‘stirs up; (refl.) is afraid’, it is evident that we have two homonymous roots in PIE, as Mayrhofer (ll.cc.) essentially suggests, with, in IndoIranian, the zero grade form *math-* levelled in derivatives of the first and *manth-* tending to predominate in those of the second. Whether both go back to a single root meaning something like ‘pull about, tease’ is a matter for speculation: certainly ‘injure, separate’ and ‘stir up; is afraid’ seem to form a relatively seamless progression.

yield PItal. *uot-ā(je)* (thus, too, Kümmel LIV<sub>2</sub>: 694), but since de Vaan also posits (l.c. s.vv.)  $*h_3rog_1-o-$  > *rogō*, *-āre* and  $*h_3mh_3-$  > *amō*, *-āre*, the presence or absence or nature of the laryngeal is not pertinent to the infinitive suffix, so we need have no qualms about setting  $*H = *h_3$  here as well. After all, if posttonic voicing by  $h_3$  is also the rule for Latin – which seems reasonable since the anlaut of *bibō* ‘drink’ is universally regarded as a natural adjustment to correct an apparently aberrant reduplication *\*pib-* – then no voicing of the pretonic medial cluster  $*th_3$  can occur in the reconstruction  $*uoth_3-éie/o-$ ,<sup>7</sup> which for Latin can also be written  $*h_2uoth_3-éie/o-$ .<sup>8</sup> In other words Lat. *votō* (> *vetō*) is a splendid candidate, both semantically and phonologically, for membership of the group of Ved. *vad<sup>i</sup>-*, Gk. *αὐδή* under discussion.

Derksen (2008: s.v. *vaditi*) also mentions a likely connection with Hittite *wātarnahh-<sup>i</sup>* ‘order, instruct’ (< *\*‘say sternly’?*), and so does Kümmel (LIV<sub>2</sub>: 286), who does not recognize the long vowel in the first syllable. Yet this long vowel is important because it must reflect an accented *o*-grade, which means that, as Eichner (apud Kloekhorst 2008: 932) saw in his attempt to connect Gk. *αὐδή*, Ved. *vādati* with Hitt. *uttar/uddan-* ‘word, case, story, reason’ (meanings suggesting *\*‘stern or serious word’*), the disappearance of the initial  $*h_2$  in the Hittite reflex of the proto-anlaut  $*h_2u-$  can be explained by the Saussure effect with subsequent analogical spread.

In fact *wātarnahh-<sup>i</sup>* is a factitive in *-ahh-* (Kloekhorst 2008: 149f.) and must be based on a nominal form *wātarn-*, perhaps a conflation of nom.sg.  $*wātar$  and a weak stem like *uddan-*. But  $*wātar$  has a lenited stop like the CLuvian cognate *utar/utn-* ‘word(?), spell(?)’, whereas *uttar/uddan* does not; and on this basis Kloekhorst (2008: 932f., 988f.), like Kümmel (LIV<sub>2</sub>: 286), refuses to accept Eichner’s (and others’, e.g. Mayrhofer’s EWAia 2: 496 s.v. *VAD<sup>i</sup>*) connection of *wātarnahh-<sup>i</sup>* with Hitt. *uttar/uddan-* and suspects CLuv. *utar/utn-* of belonging elsewhere. Part of the reason for this unfortunate state of affairs is Kloekhorst’s (2008: s.v.) reconstruction of Hitt. *uttar/uddan* as  $*uéth_2-r$ ,  $*uth_2-én-s$ , the  $*h_2$  of which completely rules out lenition of the stop (Kloekhorst 2008: 65f., 79) and is only there to facilitate connection with Kümmel’s (LIV<sub>2</sub>: 694) and de Vaan’s (l.c.) reconstruction of Lat. *veto* with medial  $*h_2$ . The whole family can in fact be saved by adopting, apart from our medial  $*h_3$ , the twin paradigms – singular and

<sup>7</sup> Eichner (1988: 132 n. 30) points out restoration of *e* after  $h_3$  in  $*piph_3eti$  in OIr. *ibid* ‘drinks’.

<sup>8</sup> It is noteworthy that in LIV<sub>2</sub> (see p. 706) all roots ending in  $*h_3$  have either a vowel or a resonant before the laryngeal with the exception of  $*h_2ekh_3-$  ‘eat’, in which the laryngeals are chosen solely in order to afford an accommodation with Gk. *ἄκολος* ‘morsel’ (which bears an uncanny resemblance to Arabic *‘akl* ‘eating’, *‘uk(u)l* ‘food’), yet this, according to Beekes (2010: s.v.), leads nowhere (see, however, §1.1 below). Apparently root final  $*h_3$  is currently identifiable only on the basis of its vocalic effects.

collective – presented by Meier-Brügger (2003: 204) for the PIE ‘water’ word. These make it clear that Hitt. *uttar/uddan-* has more in common with a similar collective paradigm, while Hitt. *wātarnahh-*<sup>i</sup> and CLuv. *utar/utn-* are best derived from a singular one. This latter we may write, with insertion of our laryngeals: nom. sg. *\*h<sub>2</sub>uóth<sub>3</sub>-r*, gen. sg. *\*h<sub>2</sub>uéth<sub>3</sub>-n-s*, loc. sg. *\*h<sub>2</sub>uth<sub>3</sub>-éni* which, assuming lenition in the posttonic cluster *th<sub>3</sub>* (Kloekhorst seemingly having no examples to the contrary<sup>9</sup>), yields Hitt. *\*wātar*, *\*huwetans* > *\*wetans*, *\*huttēni* > *\*wittēni*,<sup>10</sup> which takes care of our verbal root and the (levelled) lenition of the CLuvian cognate, though the latter might also be taken care of by the collective system with *\*h<sub>3</sub>*, viz. nom. sg. *\*h<sub>2</sub>uéth<sub>3</sub>-(ō?)r*, gen. sg. *\*h<sub>2</sub>uth<sub>3</sub>-nós*, loc. sg. *\*h<sub>2</sub>uth<sub>3</sub>-éni* > (assuming analogical loss of *\*h<sub>2</sub>-*) CLuv. *\*wetar* > *utar*, *\*uttnos* > *utn-*.

There might also be some vocalic change. The accented syllable of our weak stem *\*h<sub>2</sub>uth<sub>3</sub>én-* contains *\*h<sub>3</sub>é* > *\*ó* > PANat. *ō* > Hitt. *ā*, which is contrary to Kloekhorst’s (2008: 932) reconstruction but seems to fit some of the attestations he cites, e.g. dat. / loc. sg. (Old Hittite/New script) *ud-da-a-ni-i* (which is actually the same as the collective form).<sup>11</sup>

In this way the distribution of lenited and nonlenited stops in the Hittite words is explained and their connection with the above Greek, Vedic, Slavic and Latin words is made probable.

And we have acquired a sixth example of posttonic voicing/lenition by *\*h<sub>3</sub>*.

### 1.1. Further application of the above principle

From Beekes’ notion that all three laryngeals cause aspiration in Sanskrit we would have to conclude that no inherited *seṭ* root with unaspirated medial stop adjacent to the laryngeal was possible in that language. But such is not the case, even if the counterexamples are not plentiful. And if the *seṭ* nature of such roots is not secondary it would seem that nonaspiration plus conditioned voicing by *\*h<sub>3</sub>* might supply a solution for some of these “counterexamples”. From EWAia it appears that beside the Ved. *vad<sup>i</sup>-* just dealt with, and its nasalized partner *vand<sup>i</sup>-*, there are only *aś<sup>i</sup>-* ‘eat’, *krap<sup>i</sup>-* ‘lament’ (*seṭ* character in doubt) and *rod<sup>i</sup>-* ‘weep,

<sup>9</sup> Kloekhorst’s (2008: 79) sole example for this clustering rule with *h<sub>3</sub>* has the cluster *\*dh<sub>3</sub>* in anlaut, where (i) we do not expect lenition by *\*h<sub>3</sub>* and (ii) Hittite orthography makes no such distinction.

<sup>10</sup> See Kloekhorst (2008: 987f.) on the need for some reshuffling to eliminate any Hittite alternation of anlaut *w* and *u*.

<sup>11</sup> Something similar is found among the specifically collective forms, e.g. gen. sg. *\*h<sub>2</sub>uth<sub>3</sub>-n-ós* > Hitt. *uttnās* found in Old/Middle Hittite (Middle script) gen. sg. *ud-da-na-a-aš*. Kloekhorst should perhaps examine whether he has not confounded two distinct paradigms here, though it is probable that the task is made more difficult by the complete absence of nominal derivatives with accented initial syllable.

bewail'. LIV<sub>2</sub> has some more, the additional ones with representation in Vedic being:  $*lambH-$  'hang slack',  $*h_2et(H)-$  'wander',  $*peth_1-$  'fall' :  $*peth_2$  'spread (wings), fly'.

For  $as^i$  'eat' we can assume, for a reason quite different from Kümmel's in LIV<sub>2</sub>: 261, that the root final laryngeal is  $*h_3$ , which is unobjectionable for the nasal infixing present (class 9) system where the laryngeal is always separated from the medial prevelar and for the ppp. and gerund where the  $*k_1h_3$  cluster is pretonic. In the perfect, the oxytone of the nonsingular forms will inhibit voicing by  $*h_3$ . In the remaining forms of the perfect, voicing by  $*h_3$  would result in forms that might be mistaken for a perfect of  $aj-$  'drive', a set of forms that seems generally unknown in PIE,<sup>12</sup> perhaps for this reason, though similar scruples have admittedly not prevented the homonymy of Ved.  $\acute{a}śa$ , reckoned to be a perfect of both  $as^i-$  'eat' and  $amś-/naś-$  'attain'. Similar remarks apply to the aorist, though the hypothetical aorist forms of anī  $aj-$  should have remained distinct from those of  $set\ as^i-$ .

There appears to be no satisfactory etymology for  $as^i-$  'eat', though I think one can be found in Hittite  $\bar{a}k-i/akk-$  'die, be killed; be eclipsed'<sup>13</sup> because the idea that a heavenly body undergoing an eclipse is 'being eaten or devoured' is an appropriate metaphor, particularly for lunar eclipses at night when a biteshaped "missing piece" can be seen gradually changing and increasing in size over the lunar surface. Another semantic link is that being 'killed' and 'eaten' by a carnivore in the wild are two things that tend to go hand in hand. All of what we eat cooked is in fact dead. On the formal side: as already mentioned (n. 3 above), Kloekhorst (2008: 168) reconstructs  $*h_{1/3}ók-ei$ ,  $*h_{1/3}k-énti$  which takes care of the lenition in the singular stem of the Hittite verb and its absence in the plural, just as the changing position of the accent would do if  $*h_3$  were present after the tectal. Any differences of vocalism can be overcome by restorative analogy (Eichner, see n. 7 above). Thus a root  $*h_{1/3}ek_1h_3-$  suits both the Vedic and the Hittite words.

Ved.  $krap^i-$  'lament' (if it is  $set$ ) might be expected to have aspirated or voiced labial in RV aor.  $akrapishta$ , which, if accented, would have accent on the first syllable (the augment): the absence of both voicing and aspiration, as also in the case of  $*-peH$  in Ved.  $-pipāná-$ ,  $-pīpīte$  (in which, according to the view put forward here  $*H$  is unlikely to be  $*h_3$ ), is covered by Beekes' (1995: 126) doubt about  $*p$  being aspirated by laryngeals.

<sup>12</sup> But cf. the Neubildung ON  $ók$  'drove' <  $*h_2e-h_2(o)g_1-$  (Kümmel LIV<sub>2</sub>: 256).

<sup>13</sup> The etymologies recorded for this by Kloekhorst (2008: s.v.) are not particularly convincing: Kloekhorst himself rejects Eichner's connection with Ved.  $\acute{a}śú-$  'swift', while his own proposed connection with Ved.  $\acute{a}ka-$  'pain' would normally require  $*k_2$ , i.e. a labiovelar, though this might be subject to delabialization perhaps by dissimilation against an anlaut  $*h_3$  except that Mayrhofer (EWAia: s.vv.) finds worthy of consideration only Schwyzer's connection of Ved.  $\acute{a}ka-$  with Ved.  $añc-$  'bend', which has a sound etymology believably reconstructed with anlaut  $*h_2-$ .

Ved. *rod<sup>i</sup>*- can have original *\*d* followed by *\*h<sub>3</sub>*.

For Ved. *ramb*- ‘hang slack’, the reconstruction *\*lembH-* by Kümmel (LIV<sub>2</sub>: s.v.) is said to be required by Tocharian, yet when reconstructing *\*ieug<sub>1</sub>H-* (not found in Indo-Aryan unless as *yodh-*) with laryngeal for the same reason, the same Kümmel (l.c., s.v.) says the Tocharian evidence is not binding because of the significant oversupply of *seṭ* forms in that language.

The medial laryngeal proposed in *\*h<sub>2</sub>et(H)-* ‘wander’ is admittedly only required if the verb belongs with Ved. *átithi-* ‘guest’, a connection that is very uncertain both with respect to its very existence and in the matter of the direction of derivation. From the individual suggestions of other scholars recorded in EWAia (s.v. *átithi-*) it is possible to formulate the single idea that Grassmann’s law eliminated the aspiration that would have been induced by the medial aspirating laryngeal (since *\*h<sub>3</sub>* is clearly impossible on the view being supported here) in Ved. *átithi-* = OAv. *asti-* and the lack of aspiration then spread to the verb.

Both laryngeals proposed on the basis of Greek material in *\*peth<sub>1</sub>-* ‘fall’ and *\*peth<sub>2</sub>-* ‘spread (wings), fly’ in LIV<sub>2</sub> are rejected by EWAia (s.v. *PAT/1*). Beekes (2010: 1181f.) allows one in *\*peth<sub>2</sub>* only, but finds confusion between the two roots in Greek anyway; none of the extra-Greek cognates cited by Beekes for either root seems to require specifically *\*h<sub>2</sub>*. So much for the putative *seṭ* status of either root in Vedic.

Thus our hypothesis of posttonic voicing/leniting by *\*h<sub>3</sub>* is useful for the purpose of explaining the lack of aspiration in *seṭ* roots in Vedic in the cases of *vad<sup>i</sup>-*, *vand<sup>i</sup>-*, *aś<sup>i</sup>-*, and *rod<sup>i</sup>-*.

## 2. *\*h<sub>3</sub>uV-* in Greek

There are a small number of Vedic *va*-onset verbs having zero grade forms with anlaut *u-* and sometimes other forms with vocalic onset. They include *vac-* ‘speak’ : passive *ucyáte*; *vaś-* ‘wish’ : pres. *uśmási*; and *vah-* ‘carry’ : passive *uhyáte*, *o*-stem *aughá-* ‘flood, stream’ (connected, e.g., by Narten 1986: 219–221). These roots are traditionally reconstructed without anlaut laryngeal, whether in LIV<sub>2</sub>, EWAia or Beekes (2010: s.vv. *ἔπος*, *ἔκων*, *ἔχω/2*), yet if the vocalic onset forms go back to PIE – and note that Narten (1986: 221 n. 84), with her parallel between *\*uagž<sup>h</sup>-* : *\*aug<sup>h</sup>-* and *\*uakš-* : *\*aug-* ‘grow, increase’ suggests that the ‘carry’ root usually reconstructed *\*ueg<sub>1</sub><sup>h</sup>-* is a backformation from *\*ueg<sub>1</sub><sup>h</sup>-s* < *\*eug<sub>1</sub><sup>h</sup>-s* with schwebeablaut due to suffixed *\*s* (cf. LIV<sub>2</sub>: 641 s.v. *\*teuk-/2* n. 3) – then it seems to me these reconstructions should be supplied with a consonantal, i.e. laryngeal, anlaut. On the other hand the addition of such a laryngeal would seemingly clash with the absence of any “prothetic” vowel which might be expected in the respective Greek cognates, such as *ἔπος* ‘word, speech’, 1.sg. aor. *εἶπον* ‘say, speak’ <

$*h_1e + *ueik_2$ -<sup>14</sup> <  $*ueuk_2$ - by dissimilation (recorded, e.g., by Beekes 2010: s.v.  $\epsilon\tilde{\iota}\pi\omicron\nu$ );  $\epsilon\kappa\acute{\omicron}\nu$ , dial.  $\phi\epsilon\kappa\acute{\omicron}\nu$  ‘deliberate(ly)’; and  $\delta\chi\omicron\varsigma$  ‘cart, chariot’,  $\epsilon\tilde{\chi}\omega$  ‘transport’, Pamph. 3.sg. imperat.  $\phi\epsilon\chi\epsilon\tau\omega$ , Cypr. aor.  $\epsilon\phi\epsilon\chi\epsilon$ ; respectively.

But perhaps such an expectation is unsoundly based. For whereas Beekes (2010: s.vv.) has ample examples of  $*h_1uV$ - > Gk.  $\acute{\epsilon}V$ - (e.g. Hom.  $\acute{\epsilon}\acute{\epsilon}\lambda\delta\omicron\mu\alpha\iota$ ,  $\acute{\epsilon}\acute{\epsilon}\delta\nu\alpha = \acute{\epsilon}\delta\nu\alpha$ ) and of  $*h_2uV$ - > Gk.  $\acute{\alpha}V$ - (e.g.  $\acute{\alpha}\eta\mu\iota$ , less securely  $\acute{\alpha}\epsilon\lambda\lambda\alpha$ ,  $\acute{\alpha}\epsilon\acute{\iota}\delta\omega$ ), a careful search for entries likely to reflect  $*h_3uV$ - in Beekes 2010 (viz. under  $oa$ -,  $*oe$ -,  $*oh$ -,  $oi$ -,  $*oo$ -,  $ov$ -,  $*ow$ -,  $*\omega a$ -,  $\acute{\phi}a$ (-),  $\acute{\phi}o$ (-)) raises only the possibility that  $*h_3u(e/o)iC$ - may yield Gk.  $*\acute{o}\phi(\epsilon/o)iC$ - >  $\acute{o}(\epsilon/o)iC$ - in  $\acute{o}\tilde{\gamma}\nu\nu\mu\iota/\acute{o}\epsilon\acute{\iota}\gamma\eta\nu$  ‘open’ and  $\acute{o}\tilde{\iota}\omicron\mu\alpha\iota$  ‘deem’, both derivations being very uncertain. LIV<sub>2</sub> does not strongly support the first (s.v.  $*h_3ueig$ -) nor mention the second at all, and for this latter Beekes (2010: s.v.) prefers to reconstruct  $*h_2e/ouis$  (NB  $*h_2$ -!).<sup>15</sup>

For  $\acute{o}\tilde{\gamma}\nu\nu\mu\iota$ , no worse than Beekes’ (2010: s.v.) tentative acceptance of Forssman’s connection with Ved.  $vij$ - ‘tremble; start back’,  $v\acute{e}ga$ - ‘violent movement’ (<  $*h_3eig_2$ - ‘give way’) (and OHG  $w\tilde{i}hhan$ , OE  $w\tilde{i}can$  ‘yield’ – EWAia 2: 578) is a new connection I here propose with OE  $sw\tilde{i}can$ , ‘yield, deceive etc.’, ON  $svikva$ ,  $svikja$  ‘betray’ etc. (see Pokorny 1959: 1042 s.v.  $sueig$ ) for which purpose we may reconstruct  $*h_3su(e)ig_2$ -<sup>16</sup> > preMyc.<sup>17</sup>  $*ohw(e)ig$ -<sup>18</sup> >  $\acute{o}\tilde{\gamma}\nu\nu\mu\iota$  /  $\acute{o}\epsilon\acute{\iota}\gamma\eta\nu$  instead. Beekes (l.c.) cross-references  $\acute{o}\tilde{\gamma}\nu\nu\mu\iota$  with  $\acute{\epsilon}\pi\acute{\omega}\chi\alpha\tau\omicron$  ‘were closed’,<sup>19</sup> a connection that may, via Grassmann’s law, provide a rationale, if any is needed, for the psilosis of  $\acute{o}\tilde{\gamma}\nu\nu\mu\iota$ , as well as shoring up the semantic progression of ‘open/close’ – ‘(un)cover’ – ‘deceive’ required by this comparison (cf. Russian  $kryt$  ‘cover’ –  $zakryt$  ‘close’ –  $otkryt$  ‘open’ –  $skryt$  ‘conceal’).

The only other  $*h_3u$ -onset root in LIV<sub>2</sub> apart from  $*h_3ueig$ - is  $*h_3uath_2$ -. Beekes (2010: s.vv.) regards this as a non-PIE reconstruction, though recently I have attempted (2014: 200) to give it some respectability by pointing out that the medial  $*a$  represents merely a failure to recognize that  $*u\bar{o}$  and  $*u\bar{a}$  fall together in Baltic, while the tones of the Baltic cognates, Latv.  $v\acute{a}ts$  and older Lith.  $v\acute{o}tis$ ,

<sup>14</sup> Interestingly enough, this form preserved the labiality of the labiovelar which might otherwise have been lost after  $*u$  in the original reduplicated form.

<sup>15</sup> Native anglophones will I think agree that by “depart from” Beekes here means not ‘reject’, ‘avoid’ or ‘eschew’ but ‘start with, take as our point of departure’.

<sup>16</sup> Orel’s (2003: s.v.  $*sw\tilde{i}k(w)anan$ ) connection with Lith.  $sva\tilde{i}gti$ ,  $sva\tilde{i}gi\ddot{u}$  (=  $sva\tilde{i}gst\ddot{u}$ ?),  $sva\tilde{i}gai\ddot{u}$  conflicts with Winter’s law: Smoczyński (2007: s.v.  $svaj\acute{o}ti$ ), no doubt correctly, holds the voiced stop to be an intra-Lithuanian voicing after nonsyllabic  $i$ .

<sup>17</sup> I.e. pre-Mycenaean, referring to a linguistic stage between PIE and Mycenaean or Proto-Greek, since Beekes (2009: passim; 2010: passim) following Furnée has – I think it not too severe to say – hijacked “Pre-Greek” (“Vorgriechisch”) to refer to sub- and/or adstrate material recorded in Greek.

<sup>18</sup> Labialization of  $*g_2$  perhaps lost by dissimilation against  $*h_3 + *u$  in Greek.

<sup>19</sup> Here Beekes’ putative PIE  $*h_3ueig$ - conveniently changes its meaning from ‘give way’ to ‘open’.

require, not Kümmel's (LIV<sub>2</sub>: l.c.) lengthened grade, but an internal laryngeal sited so as to inhibit stress retraction to the first syllable by Hirt's law in order to account for the Latvian broken tone, i.e. *\*h<sub>3</sub>uh<sub>1</sub>oth<sub>2</sub>-*. For laryngeal imposing acute when before the vocalic nucleus in Baltic rather than after it, cf. Lith. *būti*, Latv. *būt* < PIE *\*b<sup>h</sup>Hu-*, Lith. *výti*, Latv. *vīt* < PIE *\*uh<sub>1</sub>i-* (Derksen 2008: s.vv. *\*b<sub>3</sub>yti*, *\*viti* – error for *\*viti?*; Kortlandt 1975: 3, 65; note that these supporting examples all have the stress retraction described by Kortlandt 1994=2002: §4.4). Further, as we have seen above, Beekes (e.g., 2010: 168 s.v. αὐδή) has shown that Kümmel's (l.c.) anlaut zero grade will not yield the desired result because *\*HuC-* > Gk. *úC-*, which would include also *\*h<sub>3</sub>uh<sub>1</sub>e/oth<sub>2</sub>-* > Gk. *úe/o-*, consequently the precise protoform of Hom. *οὔτα* requires a vowel either immediately before or immediately after *\*u*.<sup>20</sup>

With vowel immediately after *\*u*, i.e. *\*h<sub>3</sub>ue/oh<sub>1</sub>th<sub>2</sub>*, we would get in Greek, according to the received wisdom, *\*\*ὄφῆ/ωτα* which is obviously wide of the mark. With vowel immediately before *\*u*, i.e. *\*h<sub>3</sub>e/ouh<sub>1</sub>th<sub>2</sub>*, we get, with vocalization of the medial and final laryngeals, *\*ὄφετα* > *\*όετα* > Gk. *οὔτα* by contraction. Now although isolated examples of this kind of contraction are found in the epic, e.g. Z 508 *λόεσθαι* for *λοέεσθαι*, it is generally not expected to be characteristic of a given etymon throughout, cf. Beekes' (2010: s.v. *οὔς*) misgivings about etymologies that require contracted *οὔς* 'ear' at Λ 109 and Y 473. So even with *\*h<sub>3</sub>e/ouh<sub>1</sub>th<sub>2</sub>* we do not have a particularly secure etymology of *οὔτα*.

The main point here, however, is that none of these modifications of alleged *\*h<sub>3</sub>uath<sub>2</sub>-* (nor the original quirky form itself) provides any evidence to support any convention that *\*h<sub>3</sub>uV-* > Gk. *\*οFV-*.

Thus we have no secure items demonstrating the proposition that PIE *\*h<sub>3</sub>uV-* > Gk. *ό(F)V-*. Further, there appears to be no evidence to the contrary in Hittite (see Kloekhorst 2008: 75f.) and the question of *\*h<sub>3</sub>u-* in Armenian remains completely uncertain (see Martirosyan 2010: 712f. et s.v. *hum*; see also Woodhouse 2011: 163 for a preference to reconstruct this Armenian word with anlaut *\*h<sub>2</sub>-*).

All this leaves the way open for my new proposal that in the PIE segment *\*h<sub>3</sub>u*, certainly in anlaut, and, judging by the derivation of Gk. *εἶπον* quoted above, medially as well, the laryngeal vanishes in all languages<sup>21</sup> (with the possible exception

<sup>20</sup> This is a common error in LIV<sub>2</sub>, e.g. 286f. s.vv. *\*h<sub>2</sub>uedH-* and *\*h<sub>2</sub>ueǵ<sup>h</sup>* and wherever else a type lq present (LIV<sub>2</sub>: 19) has been incorrectly reconstructed instead of a type l<sub>r</sub> for Greek reflexes of *\*Hu-* onset roots.

<sup>21</sup> An obvious parallel to this is the gradual merger of PGmc. *\*hw* and *\*w* in attested Germanic, early in German (during the OHG period) and in Dutch (already in the Old Low Franconian documents – e.g. *uuanda* 'because'), completed in current Swedish, mostly complete, despite the standard orthography, in current Danish, Norwegian and English, still to come in current Icelandic and the English spoken in, e.g., Scotland.

of Armenian), and this property enables  $*h_3u-$  to be regarded as a believable anlaut for reconstructions that have hitherto relied on a probably incorrect syllabic anlaut  $**u-$ .

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## References

- Bammesberger, Alfred (ed.), 1988, *Die Laryngaltheorie und die Rekonstruktion des indogermanischen Laut und Formensystems*. Heidelberg: Carl Winter.
- Beekes, Robert Stephen Paul, 1988a, Laryngeal developments: a survey, in Bammesberger (ed.): 57–105.
- , 1988b, PIE. *RHC* in Greek and other languages, *IF* 93: 22–45.
- , 1995, *Comparative Indo-European linguistics: an introduction*, tr. UvA Vertalers/Paul Gabriner. Amsterdam/Philadelphia: John Benjamins.
- , 2009, Pre-Greek names, *JIES* 37/1&2: 191–197.
- , 2010, *Etymological dictionary of Greek* (Leiden Indo-European etymological dictionary series 10). Leiden/Boston: Brill.
- Boutkan, Dirk and Siebinga, Sjoerd Michiel, 2005, *Old Frisian etymological dictionary* (Leiden Indo-European etymological dictionary series 1). Leiden/Boston: Brill.
- Clackson, James, 1994, *The linguistic relationship between Armenian and Greek* (Publications of the Philological Society 30). Oxford UK / Cambridge USA: Blackwell.
- Derksen, Rick, 2008, *Etymological dictionary of of the Slavic inherited lexicon* (Leiden Indo-European etymological dictionary series 4). Leiden/Boston: Brill.
- Eichner, Heiner, 1988, Anatolisch und Trilaryngalismus, in Bammesberger (ed.): 123–151.
- EWAia = Mayrhofer, Manfred, 1992–2001.
- Kloekhorst, Alwin, 2008, *Etymological dictionary of of the Hittite inherited lexicon* (Leiden Indo-European etymological dictionary series 5). Leiden/Boston: Brill.
- Kortlandt, Frederik, 1975, *Slavic accentuation: a study in relative chronology*. Lisse, Netherlands: Peter de Ridder.
- , 1978, I.E. palatovelars before resonant in BaltoSlavic, in *Recent developments in historical phonology* (Trends in linguistics, Studies and monographs 4). The Hague/Paris/New York: Mouton. Pp. 237–243.
- , 1985, Long vowels in Balto-Slavic, *Baltistica* 21/2: 112–124.

- Kortlandt, Frederik, 1994, From Proto-Indo-European to Slavic, *JIES* 22: 91–112.
- , 2002, From Proto-Indo-European to Slavic, [www.kortlandt.nl].
- Kümmel, Martin, see LIV<sub>2</sub>.
- Lindeman, Fredrik Otto, 1987, *Introduction to the 'Laryngeal Theory'*. Oslo: Norwegian University Press / Institute for Comparative Research in Human Culture.
- LIV<sub>2</sub> = 2001, *Lexikon der indogermanischen Verben*, ed. Helmut Rix assisted by Martin Kümmel, Thomas Zehnder, Reiner Lipp, Brigitte Schirmer, 2nd rev. ed. by Martin Kümmel and Helmut Rix. Wiesbaden: Dr. Ludwig Reichert.
- Martirosyan, Hrach K., 2010, *Etymological dictionary of the Armenian inherited lexicon* (Leiden Indo-European etymological dictionary series 8). Leiden/Boston: Brill.
- Mayrhofer, Manfred, 1992/2001, *Etymologisches Wörterbuch des Altindoarischen*, 3 vols. Heidelberg: Carl Winter.
- Meier-Brügger, Michael, 2003, *Indo-European linguistics*, in cooperation with Matthias Fritz and Manfred Mayrhofer, tr. Charles Gertmenian. Berlin / New York: Walter de Gruyter.
- Narten, Joanna, 1986, *Der Yasna Haptaṅhāiti*. Wiesbaden: Dr. Ludwig Reichert.
- Orel, Vladimir, 2003, *A handbook of Germanic etymology*. Leiden/Boston: Brill.
- Pleteršnik, Maks, 1894–1895, *Slovensko-nemski slovar*, 2 vols. Ljubljana: Knezoškofijstvo.
- Pokorny, Julius, 1959, *Indogermanisches etymologisches Wörterbuch*, 1, Munich/Berne: A. Franck.
- Schrijver, Peter, 1991, *The reflexes of the Proto-Indo-European laryngeals in Latin* (Leiden Studies in Indo-European 2). Amsterdam / Atlanta, GA: Rodopi.
- Smoczyński, Wojciech, 2007, *Słownik etymologiczny języka litewskiego*. Vilnius: Philological Faculty, Vilnius University.
- Vaan, Michiel de, 2008, *Etymological dictionary of Latin and the other Italic languages* (Leiden Indo-European etymological dictionary series 7). Leiden/Boston: Brill.
- Woodhouse, Robert, 1998, On PIE. tectals, *IF* 103: 40–60.
- , 2005, Assibilative palatalization of tectals in Phrygian, *IF* 110: 205–234.
- , 2008, Some more etymologies not requiring Proto-Indo-European \*b, in *Problemy zahal'noho, herman'skoho ta slov'jan'skoho movoznavstva: do 70-rič'ja profesora V.V. Levyc'koho / Problems of general, Germanic and Slavic linguistics: papers for the 70th anniversary of Professor V. Levickij*. Černivci/Černovcy: Knyhy-XXI. Pp. 18–26.
- , 2009, The Sindhi implosives: archaism or innovation?, *IF* 114: 79–117.
- , 2011, Lubotsky's and Beekes' laws, PIE \*(H)r, \*(H)i(V), \*a, and some other laryngeal matters, *SEC* 16: 151–187.
- , 2012, Slavic \*edīn 'one' and Winter's law, *SEC* 17: 151–178.
- , 2014, Some Greek etymologies, *SEC* 19: 189–204.