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## TIJMEN PRONK

# Eichner's law: a critical survey of the evidence<sup>1</sup>

**Abstract:** In a 1973 article on the etymology of Hitt.  $m\bar{e}hur$  'time, period', Eichner argued that Proto-Indo-European  $*h_2$  did not colour  $*\bar{e}$ . This rule, which is commonly referred to as *Eichner's law*, was later extended to also apply to  $*h_3$ . This article reassesses the evidence that would show that  $*\bar{e}$  is not coloured by an adjacent laryngeal. It also analyzes some potential counterevidence to *Eichner's law*. This leads to the conclusion that PIE  $*\bar{e}$  was coloured by an adjacent laryngeal in at least Greek, Baltic and Italo-Celtic and that there is insufficient evidence for non-colouration of  $*\bar{e}$  in any of the other branches of Indo-European.

#### Introduction

In 1973, Eichner wrote a well-argued and influential article on the etymology of Hitt.  $m\bar{e}hur$  'time, period', in which he derived this word from the root reflected in Lat.  $m\bar{a}t\bar{u}rus$  'ripe, mature', PIE \**meh*<sub>2</sub>-. In order for this etymology to work, Eichner assumed that a) the root contained a lengthened grade vowel \* $\bar{e}$  and that b) this \* $\bar{e}$  was not coloured by the adjacent *a*-colouring laryngeal (\* $h_2$ ). Eichner produced a number of examples to back up both the reconstructed lengthened grade and the non-colouring of \* $\bar{e}$  by \* $h_2$ . It was later

<sup>1</sup> This paper started life as a handout during a course on the lengthened grade in Proto-Indo-European, which Alexander Lubotsky and I taught at the 2013 Leiden Summer School in Linguistics. I also presented it at the *Arbeitstagung der indogermanischen Gesellschaft* at Leiden University that directly followed the Summer School. The paper was greatly improved by the many useful comments and suggestions by participants of both the course and the conference as well as an anonymous reviewer. Any errors or infelicities naturally remain my responsibility.

argued that the rule that the timbre of long  $*\bar{e}$  remained unaffected by a neighbouring laryngeal also applied when the laryngeal was *o*colouring (\* $h_3$ , Mayrhofer 1986: 141, Jasanoff 1988, Rasmussen 1999: 408). The rule is often referred to as *Eichner's law*.

Eichner's law is nowadays accepted by most Indo-Europeanists, see, e.g., Mayrhofer (1986: 133, 141; 2004: 27f., 30), Melchert (1994: 68), Collinge (1995: 40f.), Meier-Brügger (2002: 120). Nevertheless, the validity of Eichner's law has occasionally been challenged. The law was criticized by Lindeman (esp. 1994, 1997: 80ff.), Schrijver (1991: 129ff.), Kortlandt (2003-2004 = 2010: 367f, 2012: 252) and by Kloekhorst in various entries in his Hittite etymological dictionary (2008). The law was defended, especially against the objections raised by Lindeman, and supported with further evidence by Rasmussen (1999: 394-412) and Vine (2006). Because the body of evidence for and against Eichner's law has grown substantially since Eichner's 1973 article, and because a growing number of etymologies depend on Eichner's law, a reassessment of all relevant data is in order. It will be argued that, on the basis of these data, Eichner's law cannot be shown to have operated in Proto-Indo-European. Below, the etyma in which Eichner's law has been argued to have taken place will be discussed, but first we will briefly address the question whether Eichner's law, if accepted in any form, should be considered a phonological rule of Proto-Indo-European.

#### Laryngeal colouring

The assumption underlying Eichner's law in its original and later formulations is that the colouring of \*e by an adjacent laryngeal  $*h_2$  or  $*h_3$  took place within the proto-language already, if not at at a phonemic level, then at least at a phonetic level. If the colouring of short \*e cannot be dated to Proto-Indo-European, then neither can Eichner's law. Although it is difficult to determine when exactly laryngeal colouring became phonemic, some facts point to a date *after* the disintegration of Proto-Indo-European. Strong evidence is presented by Greek and Phrygian, where vocalized laryngeals have the same timbre as \*e preceded by the same laryngeal. The argument runs as follows: the vocalization of the laryngeals can be dated after the disintegration of Proto-Indo-European, because the positions in the word in which laryngeals are vocalized are branch-specific. Cf. the following well-known examples:

- Gr. ἀστήρ, Arm. astl 'star' < \* $h_2$ ster- vs. ToB ścirye, Goth. stairno, Av. star- < \* $h_2$ ster-;
- Gr. θυγάτηρ, Skt. *duhitár*-, ToB *tkācer* 'daughter'  $< *d^hugh_2t\bar{e}r$  vs. Lith. *duktě*, Arm. *dustr*, Goth. *dauhtar*  $< *d^hugh_2t\bar{e}r$ ;
- Gr. ὄσσε 'eyes' <  $h_3 e k^w i h_1$  vs. OCS  $o \check{c} i < h_3 e k^w i h_1$ ;
- Gr. πότνια 'mistress' < \*potnih<sub>2</sub> vs. Skt. pátnī- < \*potnih<sub>2</sub>;
- Gr.  $\pi \tilde{v} \rho$ , U pir, ON fúrr 'fire' < \* $p \mu h_2 r$  vs. ToB puwar < \* $p \mu h_2 r$ ;
- ToB snai 'without' < \*snHi vs. Lat. sine, OIr. sain- < \*snHi;
- Gr. övoµa, OPhryg. onoman 'name'  $< *h_3nh_3mn$  vs. Goth. namō  $< *h_3nh_3men$  vs. OPr. enmens, OCS imę  $< *h_3nh_3men$  vs. Skt. nāman-  $< *h_3nh_3men$ -;
- Gr. γιγνώσκω 'I come to know'  $< *gn^{2}h_{3}ske/o$  vs. Arm. čanač 'em 'I know'  $< *gnh_{3}ske/o$ -;
- Lat.  $pl\bar{e}nus$  'full' <  $pl^{p}h_{1}no$  vs. Skt.  $p\bar{u}rn\dot{a}$ -, Lith. pilnas <  $plh_{1}no$ -.

Although various rules and analogies and in some cases different reconstructions for the individual forms have been proposed in the literature to explain most of these and similar examples away, it is far more straightforward to take the examples at face value and conclude that the vocalization of the laryngeals is a post-PIE process with branch-specific rules. This has consequences for the dating of the colouring of \*e by  $*h_2$  and  $*h_3$ . In Greek, Phrygian and Armenian, in word-initial position before a consonant, a svarabhakti vowel developed after a "syllabic" laryngeal (something like  $*h_{10}$ ,  $*h_{20}$  and  $*h_{30}$ ), which was subsequently coloured by the laryngeal in the same way as \*e was, at least in Greek and Phrygian and arguably also in Armenian.<sup>2</sup> This suggests that laryngeal colouring of adjacent vowels

<sup>2</sup> The Greek and Phrygian reflexes may reflect a common development (cf. de Lamberterie 2013: 30-34 with refs.). For Armenian the colouring is controversial, see the discussion in Clackson (1993: 33-36), but *inn* 'nine'

was at that time still automatic. In other words: it had not yet become phonemic.

We know not only that the phonemic stage of laryngeal colouring was post-Proto-Indo-European, we are also able to say something about the dating of the *phonetic* stage of laryngeal colouring. It is clear that  $*h_{3e}$  merged with \*Ho but not with  $*h_{2e}$  in Greek and Italo-Celtic.<sup>3</sup> Although this may lead one to believe that the merger of \*e and \*onext to  $*h_3$  can be dated to the proto-language, other branches provide counterevidence (Beekes 1991: 238, Kortlandt 2010: 52): in Anatolian, Indo-Iranian and Armenian,  $*h_{3e}$  remained distinct from \*Ho in stressed syllables (Kloekhorst 2006, 2014a: 583ff.), open syllables (Lubotsky 1990) and initial position (Kortlandt 2003: 42ff., 54ff.) respectively. Cf. the following examples:

- Skt. *ánas* 'load' <  $*h_3enes$  vs. *áyu* 'lifetime' <  $*h_2oiu$ -, with a long vowel due to Brugmann's law;
- CLuw.  $t\bar{a}ru$  'wood' < \* $d\acute{o}ru$  vs. harran(i)- 'oracle-bird' < \* $h_3\acute{e}ron$ -, with a geminate due to Čop's law;
- Hitt.  $h\bar{a}ppar$  'business' < \* $h_3epr$  vs.  $s\bar{a}ku\mu a$  'eye' < \* $s\delta k^w o$ -, with lenition after accented \*o;
- Arm. *orb* 'orphan' < \**Horb*<sup>*h*</sup>-, *oskr* 'bone' < \**h*<sub>3</sub>*st* vs. *hot* 'odour' < \**h*<sub>3</sub>*ed*-, with h- < \*h<sub>3</sub> /#\_*e*.

In the proto-language,  $*h_{3}e$  must therefore have been distinct from \*Ho, too, even if all branches point to a realization of \*e next to  $*h_3$  that was closer to the realization of \*o than to that of \*e in other positions. The relatively common practice of writing  $*h_{3}o$  and  $*oh_3$  for PIE  $*h_{3}e$  and  $*eh_3$  is thus misleading.

<sup>&</sup>lt;  $*h_1$  neun- and erek 'evening' <  $*h_1$  reg<sup>w</sup>- remain solid arguments in favour of a reflex of  $*h_1$ - that is distinct from  $a - < *h_2$ -.

<sup>3</sup> Perhaps also in Baltic, if Lith. *úodžia* 'smells' reflects PIE \*h<sub>3</sub>ed-ie/o- (= Gr. ὄζω), which, on morphological grounds, seems more likely than a reconstruction \*h<sub>3</sub>od-ie/o-. The long reflex in the Lithuanian verb is due to Winter's law. It contrasts with -o- from lengthened \*h<sub>2</sub>e, e.g. in *obuolỹs* 'apple' < \*h<sub>2</sub>ebōl.

The status of  $*h_2e$  and  $*eh_2$  is also relevant. As in the case of  $*h_3e$  and  $*eh_3$ , it seems likely that some phonetic colouring took place in the proto-language already. The question is, however, whether there is any compelling evidence in favour of phonemicization of this colouring before the disintegration of PIE. In other words: did PIE have phonemic \*a or \* $\bar{a}$ ? The most promising examples for \*a and \* $\bar{a}$ were discussed and dismissed by Lubotsky (1989). I have taken another look at the data in a recent article (Pronk 2019). There can be no doubt about the conclusion: there is not a single conceivable Proto-Indo-European etymology that depends exclusively on the reconstruction of a phoneme a or  $\bar{a}$ . The introduction of a third vowel next to \*e and \*o (or a fifth if one includes the semivowels \*iand \*u) happened after the dissolution of (late) Proto-Indo-European. Because there was thus no phoneme \*a or  $*\bar{a}$ , colouring of \*e and  $*\bar{e}$ by  $h_2$  must have been sub-phonemic in the proto-language. For Eichner's law, it is especially relevant that late-PIE did not have a long vowel  $*\bar{a}$ .

### A critical survey of the evidence for Eichner's law

On the basis of the above, we can only agree with Peyrot (2013: 442) that our current understanding of the relative chronology of laryngeal colouring makes it impossible for Eichner's law to be a phonological rule within Proto-Indo-European. Long  $*\bar{e}$  may not have been realized with the same timbre as short \*e in the position next to  $*h_2$  and  $*h_3$ , but whether it eventually merged with PIE  $*\bar{e}$  in other positions can only have been a matter of the individual branches.

A sound law must be based on a set of examples, perhaps in some cases as few as two, which have a solid etymology and of which the phonological and morphological reconstruction is certain. Whenever the probability of the etymology is in doubt on phonological, morphological or semantic grounds, the etymon cannot be used to support or refute a sound law. We are thus trying to establish a body of etymologies that are uncontroversial, except for the fact that they require the operation of Eichner's law. With this in mind, we will now proceed to discuss the relevant material. The basic assumption will be that the etymology of a word is unknown until positive evidence for borrowing, Proto-Indo-European herritage or a language-internal innovation can be provided.

1. Hitt. nom.acc. mehur, obl. mehun- (n.) 'period, time'. The word it all started with. Eichner connected mehur with Lat. mature', mānus 'good', OIr. maith 'good'. The semantics of this etymology are of course fine, cf. Cr. doba 'period', dobar 'good'. Eichner reconstructed nom.acc.sg.  $*m \not\in h_2$ -ur, gen.sg.  $*m \not\in h_2$ -un-(o)s with leveling of the long vowel to account for the Hittite static paradigm and the vocalism. A parallel would be found in Gr.  $\tilde{h}\pi\alpha\rho$  'liver', if the Greek word goes back to PIE nom.acc.sg. \*iekw-r (1973: 69).4 Kloekhorst objected to Eichner's etymology in his etymological dictionary of Hittite. Departing from the observation that the sequence -eh- reflects \*-eih2- or \*-oih2- in other etyma, e.g. tehhi 'I take' <  $*d^{h}h_{l}$ -oi- $h_{2}ei$ , pēhhi 'I give' <  $*h_{l}p$ -oi- $h_{2}ei$ , he derived mēhur from \*mo/eih2-ur, a ur/un-stem derivative of the root \*meiH- found in Skt. mināti, Lat. minuō 'to diminish'. This alternative etymology for mēhur is formally uncontroversial and semantically equally acceptable as Eichner's etymology ('passing (time)' > 'period'). Because there are two more or less equally acceptable etymologies, one of which does not require Eichner's law, the word cannot be used as evidence for Eichner's law.

2. Hitt. nom.acc.  $\bar{sehur}$ , obl.  $\bar{sehun}$ - (n.) 'urine', reconstructed as  $s\bar{seh_2}$ -ur by Eichner (1973: 69-70). Rasmussen (1999: 395, followed by Oettinger 2015) turned the word into a serious example in favour of Eichner's law by providing it with an Indo-European etymology. He connected  $\bar{sehur}$  to ON  $s\bar{u}rr$  'sour', Lith.  $s\bar{u}ras$  (3) 'salty', Latv.  $s\bar{u}rs$  'salty, bitter', OCS syrb 'damp; cheese', cf. also ON saurr 'damp earth', OCS surovb 'harsh'. The Germanic and Balto-Slavic forms would continue a thematic adjective derived from the strong stem  $sh_2ur$ -, with regular laryngeal metathesis to  $suh_2r$ -. The formation is not entirely without parallels, cf. Av. zaurura- 'decrepit, senile' from

<sup>4</sup> The antiquity of the long vowel of the Greek word remains controversial, see e.g. Kloekhorst 2014b.

an Indo-Iranian heteroclitic stem  $*\acute{zr}H$ -ur/n-  $< *\acute{grh}_2$ -ur/n- (Lubotsky 1998). Le Feuvre (2007) proposed that there is also a cognate in Gr. εὐρώεις 'dank, mouldy', εὐρώς 'mould, mouldiness' which would in that case derive from a neuter noun \*εὖρον. Regardless of whether the Greek word belongs here – it is not accepted by Oettinger (2015: 259) - the European words point to an original meaning 'damp, mouldy, unpleasant (of taste)' or similar. Rasmussen's etymology is not impossible, but the semantic connection is not directly obvious (for a possible semantic scenario see Oettinger 2015: 259). The door remains open to other interpretations, like Kortlandt's suggestion (2010: 367) that the word may be a borrowing from a Semitic descendant of Proto-Semitic \*sah- 'bile, urine'. A further complication is the fact that Hitt. šēhur, šēhun- can hardly be separated from CLuw. abl.ins.sg. dūnati 'urine', which was also borrowed into Hittite, where the nom.acc.sg.  $d\bar{u}r$  is attested.<sup>5</sup> There are two more cases in which Hittite *š*- corresponds to a dental in the other Anatolian languages, viz. Hitt. šākuua-, CLuw. tāua/i- 'eye' and Hitt. šākan, šakn-, CLuw. tāin- 'oil'. There is no consensus whether this correspondence can go back to PIE \*s-. Olsen (2006), e.g., derives it from initial  $h_3$ - and connects the Anatolian words for urine with Gr. οὐρέω 'to urinate'. Melchert (2007/2008: 187, fn. 14) reconstructs \* $s\bar{e}h_2ur$ , \* $sh_2un$ , with \*sH- > Luw. d-. Kümmel (2014) reconstructs  $*sh_3 \dot{e}_{u-r}$ ,  $*sh_3 \dot{o}_{u-n-}$ , under the assumption that Hitt.  $\dot{s}$ - corresponding to Luw. d- reflects PIE  $*sh_3$ -. His reconstruction also requires the operation of Eichner's law.

Kloekhorst (2008: 741) has an alternative but more elaborate etymology for Hitt.  $\bar{s}\bar{e}hur$ . He proposed that the word was borrowed into Hittite from another Anatolian language (Palaic?) in which PIE \**séik*<sup>w</sup>-*r* would regularly have become  $\bar{s}\bar{e}hur$ . The root would then be that of OHG *seihhen* 'to urinate', SCS *sbcati* 'to piss'. As long as the

<sup>5</sup> CLuw. *ši-e-hu-wa-en-zi še-e-wa* (KBo XIII 260, r11), both often translated as 'sour' or 'bitter' (since Starke 1987: 250, fn. 12) should be left out of the discussion (*pace* Melchert 2007/2008: 187, fn. 14, Oettinger 2015: 259), because the meaning of these words is unclear, other than that they denote something negative.

exact source of the loanword cannot be established (there are no other known Hittite borrowings from Palaic), this scenario seems unlikely to me. We may conclude that the vocalism of *šēhur*, *šēhun*- could be due to (an inner-Anatolian variant of) Eichner's law if Rasmussen's etymology is correct, but that the uncertainty of this etymology forces us to look for more solid evidence for such a law.

3. Hitt. <sup>NA4</sup>*hekur* (c.) 'rock-sanctuary' has been argued to reflect  $*h_2\bar{e}\dot{k}$ -ur, a lengthened grade derivative from the root found in Skt. *ásman*- 'stone' <  $*h_2e\dot{k}$ -men- (Eichner 1973: 71). Puhvel (1991: 287) convincingly argued that the word is in fact a loanword, ultimately from Sumerian É.KUR 'mountain house'.

4. Hitt. <sup>É</sup>*hištā*, <sup>É</sup>*hištī* 'building associated with death-rituals and ancestor cult' has been connected with *haštāi* 'bone', cf. *ha-aš-ti-ja-aš* É-*er* 'house of bones'. <sup>É</sup>*hištā*, <sup>É</sup>*hištī* would reflect \**h*<sub>2</sub>*ēstojó*- (Eichner 1973: 72).<sup>6</sup> The etymology is semantically fine. Kammenhuber (1972: 300f.) nevertheless argued that the word is a borrowing from Hattic, which, according to Kloekhorst (2008: 346), is actually supported by the fact that the word is hardly ever inflected and that buildings associated with cults often have non-Indo-European names. The word cannot be plausibly shown to have been present in Proto-Anatolian or Proto-Indo-European and therefore cannot serve as evidence for Eichner's law.

5. Hitt. <sup>LÚ</sup>*hippara*- c. 'serf' would be connected to *hāppar*-, *hāppir*-'trade, business', in which case it may reflect  $*h_2\bar{e}p(o)r\dot{o}$ - 'who was bought' (Eichner 1973: 72). Kloekhorst (2008: 345) objected to the etymology on semantic grounds. A <sup>LÚ</sup>*hippara*- was not a slave but a free man of very low status, because he could own fields or vineyards. In Kloekhorst's view, the etymology is further compromised by the fact that it was explicitly "forbidden to do business (*hāppar-/hāppir-*)

<sup>6</sup> An anonymous reviewer rightly points out to me that Puhvel's reconstruction  $h_3 stoio > Hitt. {}^{E}hista, {}^{E}hista$  with anaptyctic *e/i* between  $h_3$  and s is impossible in view of hasterza- 'star'  $< h_2 ster$ -.

with a <sup>LÚ</sup>*hippara-*". In any case, the word cannot be plausibly shown to have been present in Proto-Anatolian or Proto-Indo-European.

6. OIr. *do-icc* 'comes', *ro-icc* 'reaches' <  $*h_2\bar{e}n\dot{k}$ - (Peters 1975: 41, Rasmussen 1999: 395, 397; on the alleged parallel Hitt. *hinkzi* 'to bestow' see below). LIV<sup>2</sup> more plausibly reconstructs a reduplicated present  $*h_{2i}-h_{2n}(e)\dot{k}$ - for the Celtic verb, cf. Lat. *nancīscor* 'to obtain' <  $*h_{2n}-n-\dot{k}$ -, which may also be the origin of the Celtic forms (Schrijver 1993: 39-42). I agree with Zair (2012: 251f.) that the Old Irish verb cannot be used as evidence for Eichner's law. The Germanic word for 'near', Goth. *nelv*, OE *nēah*, OHG *nāh* 'near', for which Rasmussen (1999: 407) reconstructed  $*n\bar{e}h_2k^w$ -, can be derived from  $*h_2ne\dot{k}$ -uo- to the same PIE root  $*h_2ne\dot{k}$ - 'to reach' (Kroonen 2013: 387) and therefore is not an example of Eichner's law.

7. Hitt. *henkan*- (n.) 'death, doom, plague', a derivative from *hai(n)k*-<sup>*tta(ri)*</sup>, *hi(n)k*-<sup>*zi*</sup> 'to bestow (active), bow (middle)'. Oettinger (1979: 174ff.) suggested that the root was *henk*-  $< h_2\bar{e}nK$ -, perhaps cognate to Gr. ἀνάγκη 'fate' and OIr. *écht* 'killing'. Kloekhorst (2008: 268) has shown that the Hittite verbal root must have contained -*i*- (with *ai* > *e*). Therefore, the etymology cannot be upheld and the word is not an example of Eichner's law.

8. Hitt. *kane/išš-<sup>zi</sup>* 'to recognize, acknowledge'. It has been suggested that Hitt. *kane/išš-<sup>zi</sup>* finds an exact parallel in ToA *kñasäşt* 'du kennst dich aus' (Lindeman 1971, Jasanoff 1988). According to Jasanoff both reflect an *s*-present \* $gn\bar{e}h_3$ -*s*-. Hackstein (1993) has shown that this cannot be correct. Synchronically, the ToA form is an *s*-preterit (there is also 1sg.pret. *kñasu*, on which see Winter 2005: 435f.). It reflects an earlier *s*-aorist, which is an innovation of Tocharian replacing the root aorist found in Greek and Slavic and indirectly in the Latin preterit  $n\bar{o}v\bar{i}$  (Hackstein 1995: 324). Tocharian A active *s*-preterits with an *a*-grade normally have palatalization of the root-initial consonant. This palatalization was clearly productive, unlike in Tocharian B where *s*-preterits often do not show palatalization of the root-initial consonant. The verb  $kn\bar{a}$ - is irregular in having an *a*-grade in the preterit but an  $\bar{a}$ -grade elsewhere (Peyrot 2013: 63). Although *kñas*- may directly

continue an inner-Tocharian sigmatic aorist  $*\acute{g}n\bar{e}h_3$ -s- without colouring of the long root-vowel, it is more likely that the vocalism and palatalization in  $k\bar{n}as\ddot{a}st$  are analogical to other s-preterits, cf. especially 3sg.pret. *casäs* to pres.  $t\bar{a}(s)$ - 'to put' < aor.  $*d^h\bar{e}h_1$ -s-, pres.  $*d^hi/e-d^hh_1$ - (for the development of the paradigm of this verb see Hackstein 1995: 56ff.).<sup>7</sup>

Peters (1980: 314) reconstructed an Indo-European acrostatic rootaorist with lengthened grade in the present (3sg.  $*gneh_3-t$ ) and full grade in the plural (3sg.  $*gneh_3-nt$ ) in order to arrive at the attested forms. The stem of the singular would form the basis of the Hittite and Tocharian forms and Germanic \*knēan 'to know' (OHG bi-knāen), while the plural stem would be continued by Greek ἔγνω. However, there is no particular reason to assume that the vocalism of the aorist would be taken over by the derived s-present (Hitt.) or s-preterit (ToA), which both have their own ablaut rules (see above and below). Also, Greek tends to generalize the singular stem rather than the plural stem in the root-aorist (e.g. 1sg. ἔβην, 1pl. ἔβημεν for \*ἔβαμεν), which renders Peters' scenario unlikely (Beekes 1982: 115). For the Germanic forms, a plausible scenario is available according to which its vocalism would be of inner-Germanic origin (Rix 1969: 185, Kroonen 2013: 295): a preterit stem \* gnoH- from the PIE root aorist could easily have been reinterpreted as a perfect after the Germanic merger of aorist and perfect, on the basis of which a new present stem \**gneH*- could be produced on the basis of verbs like PGm. \**wean*- 'to blow' < PIE \* $h_2ueh_1$ -, PGm. \* $n\bar{e}an$ - 'to sew' < PIE \*(s) $neh_1$ - etc.<sup>8</sup>

Kloekhorst (2009) argued that the Hitt. 3pl.pres.act. *kane/iššanzi* is the regular reflex of PIE  $*gnh_3$ -s-énti. He set up a paradigm  $*gneh_3$ -s-ti,  $*gnh_3$ -s-enti on the basis of the archaic paradigm  $tam\bar{a}\bar{s}zi$  3pl.  $tame/i\bar{s}\bar{s}anzi$  'to oppress'  $< *dmeh_2$ -s-ti,  $*dmh_2$ -s-enti. The outcome

<sup>7</sup> The imperfect stem  $k\tilde{n}a\tilde{n}\tilde{n}$ - cannot continue a lengthened grade  $*gn\bar{e}h_3$ -. Its first - $\tilde{n}$ - is due to assimilation to the following - $\tilde{n}\tilde{n}$ - (Malzahn 2010: 610).

<sup>8</sup> A similar scenario might account for OE *blāwan*, OHG *blāen* 'to blow' < PGm. \**blēan*-, Goth. *blesan*, OHG *blāsan* 'to blow' < \**blēsan*- to PIE \**b*<sup>*h*</sup>*leh*<sub>2</sub>-, cf. Lat. *flāre* 'to blow'.

\*\* $k(a)n\bar{a}\bar{s}zi$ , kane/iššanzi was levelled to kane/išzi, kane/iššanzi, cf. also post-Old Hittite 3sg. tame/išzi. According to this analysis, the Hittite form did not contain \* $\bar{e}$ , which makes it irrelevant for Eichner's law.

The Armenian aorist *caneay* 'knew' also deserves mentioning in this context. According to Jasanoff (1988: 237), the Armenian form goes back to a 3sg. present  $*\acute{gn\bar{e}h_3}$ -s-t,<sup>9</sup> which would have produced  $*\acute{gn\bar{e}-} > *cani$ - with vocalisation of the nasal due to Lindeman's law. There is, however, no compelling evidence for Lindeman's law outside Indo-Iranian (cf. Beekes 2010: 139, Barber 2013: 137, 385f. and Pronk 2015: 211, fn. 33 on the Greek material). Therefore, initial *can*-must reflect a zero-grade  $*\acute{gnh_3}$ - plus an element -*i*- (Klingenschmitt 1982: 283f.).

Finally, we should briefly discuss Old Irish *ad-gnin* 'recognizes'. It continues the nasal present  $*gn-n(e)h_3$ - that is also reflected in Skt. *jānāti*, YAv. *paiti.zānaņti* and Lith. *žinóti*. The origin of the *-i-* is not directly obvious, which is why Pedersen (1913: 547) wondered whether the form should perhaps be reconstructed with PIE  $*-n\bar{e}$ -. In Proto-Indo-European terms, this is only possible with Eichner's law, i.e.  $*gn-n\bar{e}h_3$ -. This is, however, a very awkward reconstruction, and it turns out that the explanation of *ad-gnin* should be sought within Celtic itself. The outcome of nasal presents with initial \*CRn- is often \*CRin-, apparently especially when the corresponding aorist has the shape \*CReH- (at least within Celtic, McCone 1991: 20ff.): *do-lin* 'flows'  $< *pln(e)h_1$ - from  $*pleh_1$ -, *ar-a-chrin* 'decays'  $< *kgn(e)h_1$ -from  $*kreh_1$ -, *do-tlen* 'takes away'  $< *tln(e)h_2$ - from  $*tleh_2$ -, *ro-cluinethar* 'hears' < \*kluni- < \*klinu- < \*kln(e)u-, thus also *ad-gnin*  $< *gnn(e)h_3$ - from  $*gneh_3$ -. Whatever the exact cause of this

<sup>9</sup> In Jasanoff's scenario, the Armenian aorist eventually reflects a secondary imperfect to this present. Even if  $*\acute{gn}\vec{e}h_3$ -s-t would produce \*cani-, these additional assumptions render the whole scenario improbable. Klingenschmitt (1982: 284) already pointed out that *caneay* cannot be derived from an s-aorist  $*\acute{gn}\vec{e}h_3$ -s-t with Eichner's law.

vocalisation, contrasting with \*Carn < \*CRn in other forms, it cannot be attributed to a PIE form with a lengthened grade vowel.

In spite of the fact that forms from three or even four branches appear to continue a root-variant  $*gn\bar{e}$ -,<sup>10</sup> it turns out to be impossible to come up with a single Proto-Indo-European reconstruction involving a lengthened grade  $*gn\bar{e}h_3$ - that accounts for these forms. In each case, an explanation rooted in the individual branch turns out to be simpler.

9. ON ægir 'sea', Far. poet. á ægin blá 'on the blue sea' < PGm. \* $\bar{e}gja$ - < PIE \* $h_2\bar{e}k^w$ -ió- (Darms 1978: 28f., Rasmussen 1999: 398), cf. Goth. *ahva*, Lat. *aqua* 'water' < \* $h_2\acute{e}k^w$ - $h_2$ -. Lindeman's proposal to connect the word to Lith. *ẽzeras*, OCS *jezero* 'lake' < \* $h_1e\acute{g}^h$ - (1997: 85) is at least equally plausible. In any case, the awkward assumption of a lengthened grade vowel in a *io*-stem required for both etymologies remains a good reason to doubt them. We should also seriously consider the possibility that Goth. *ahva*, Lat. *aqua* reflect a European substrate word for water (cf. Beekes 1998). If the word derives from \* $h_2ek^w$ - 'water', it was probably created within Germanic. It is implausible, though not completely impossible, that Old Norse and Faeroer were the only Indo-European languages to preserve a PIE derivative \* $h_2\bar{e}k^w$ -*i*o- 'sea'.

10. Hitt.  $ueh^{-zi}$ ,  $uah^{-}$ ,  $ueh^{-a(ri)}$  'to turn (oneself), patrol', according to Oettinger (1979: 99, 2015: 258) from a Narten paradigm  $u\bar{e}h_2$ -/ $ueh_2$ -of an otherwise unknown Indo-European root.<sup>11</sup> Kloekhorst (2008: 993) argued that the lenited -h- of ueh-, uah- is difficult to account for in a Narten paradigm. PIE  $ueh^{2-ti}$ ,  $ueh^{2-ti}$  should have produced  $ue\bar{v}\bar{v}\bar{z}zi$ , uahhanzi. Lenited -h- would have to have been introduced analogically from the singular into the plural before it was lost before t, and after its loss in the singular it would have to be restored from the plural. This is an unlikely scenario. Note also that the evidence for

<sup>10</sup> Lindeman (1971, 1997: 78, 83) even considered \**gneh*<sub>1</sub>- to be the correct reconstruction of the PIE root, but Gr. γιγνώσκω strongly supports the traditional reconstruction \**gneh*<sub>3</sub>-.

<sup>11</sup> The connection with Church Slavic *vyja* 'neck' (Reinhart 1988) is most uncertain.

the existence of PIE Narten paradigms of the type  $u\bar{e}h_2$ -/ueh<sub>2</sub>- is scanty (de Vaan 2004).<sup>12</sup> At least part of the Indo-Iranian athematic presents with a long vowel that is not of laryngeal origin can be explained from earlier reduplicated presents (Lubotsky apud Kortlandt 2004, cf. already Rix apud Harðarson 1993: 29 on Skt. tāsti, táksati), which is in accordance with the durative/iterative meaning that Kümmel (1998) established for Narten type root presents that co-exist with root aorists. Oettinger's reconstruction leaves the Hittite verb without clear outer-Anatolian cognates, it does not actually produce the attested forms and it is not very plausible from a Proto-Indo-European perspective. There is an alternative etymology for Hitt. *ueh*-, uah- that is more promising. Eichner (1973: 76-7) compared Hitt. ueh-, uah- to Skt. véti 'to pursue, to strife after', Lith. výti 'to pursue' < PIE \**ueih*<sub>2</sub>-. The allomorph *uah*- would have to be analogical to verbs with e/o-ablaut like eš-/aš- 'to be' (Kloekhorst 2008: 993). This etymology does not require the operation of Eichner's law.

11. CLuw.  $\check{si}(h)\mu al$ , a copper instrument. Starke (1981, 1990: 342f.) translated the word as 'lamp' or 'torch' and derived it from PIE  $*s\bar{e}h_2u\bar{o}l$ , a *vgddhi*-derivative from the word for 'Sun'. Because the

<sup>12</sup> Melchert (2014) recently argued Hitt. *ēšzi* 'sits' and *ú-e-ek-zi* 'demands' reflect Narten presents. He maintains that *ēšzi* cannot reflect reduplicated \* $h_1e-h_1s-ti$  because only "lengthened-grade \* $h_1\dot{e}s$ - can explain HLuvian /i:snu(wa)-/ 'seat' and /i:starta-/ 'throne', since  $*eh_iC > Luvian \bar{a}C$ , as in \* $y\acute{e}h_1ro_- > \bar{a}ra/i_-$  'time' (Melchert 1994: 245 with further examples)." (2014: 254). Kloekhorst (2008: 250ff.) suggested that the Luwian cognates might reflect pretonic  $*h_les - > is$ . The idea that  $*eh_l > Luw$ .  $\bar{a}$  (Melchert 1989: 40f., 1994: 145) remained distinct from  $*\bar{e} > \bar{i}$  (Melchert 1994: 141) is not uncontroversial (cf. Morpurgo Davies 1987: 226, who assumes that  $*eh_1C > *\bar{i}C$ ). Note that Luw.  $\bar{a}ra/i$ - 'time' should perhaps be connected to Hitt. āra- 'right, proper(ly)' (cf. Croat. doba 'period', dobar 'good') instead of PIE \*Hie/oh1-r- 'year, season'. On balance, it seems that the analysis of Hitt. ēšzi as a Narten present offers no advantages over the alternative explanation of the long vowel from  $*h_1e-h_1s$ . The analysis of  $\dot{u}$ e-ek-zi is also debated. Kloekhorst (2008: 996f.) maintains that it must go back to \*uekti = Skt. vásti (which is criticized in Melchert 2014: 255, fn. 8).

 $\dot{si}(h)ual$  is used to blind someone (KUB XLIV 4+ Rs. 28), a translation 'dagger' is more likely (Beckman 1983: 178f.). Melchert (1994: 258) accepted this translation and derived the word from "pre-Luvian  $s\bar{e}hwa$ - 'sharp, bitter'". I assume that the root he had in mind is that of Hitt.  $s\bar{e}hur$  'urine', which was discussed above under (thus also Oettinger 2015: 259). This new etymology is no more than a guess because of the required semantic shift. The word cannot be used as evidence in the present discussion.

12. CLuw. \*pihaš, only in names and in the adjectival epithet pihaš(š)ašši- of the Weather God. The word allegedly reflects \* $b^h\bar{e}h_2$ os- 'shine, flash', an s-stem with a lengthened grade from PIE \* $b^heh_2$ -'to shine' (Starke *apud* Mayrhofer 1986: 133 and 1990: 103ff.). Melchert (1994: 230) reconstructs Proto-Anatolian \* $b\bar{e}ho$ - 'splendor, might'. The popular idea that the Greek mythological winged horse  $\Pi\eta\gamma\alpha\sigma\sigma\varsigma$  derives its name from Luwian  $pihaš(\bar{s})a\bar{s}\bar{s}i$ -, which is no more than a guess, hardly helps to specify the meaning of  $piha\bar{s}(\bar{s})a\bar{s}\bar{s}i$ - ('of the sky', 'swift', 'mighty', 'white', 'roaring, thundering'?). The reconstructed meaning 'shine, flash', and therefore the etymology, is extremely speculative.

13. Arm. *learn* 'mountain', OIr. *lie*, dat.pl. *lecaib* 'stone', Gr.  $\lambda \tilde{\alpha} \alpha_{\zeta}$  'stone', perhaps also  $\lambda \alpha_{1} \alpha_{\lambda} \tilde{\alpha}_{1} \alpha_{\lambda} \tilde{\alpha}_{1} \alpha_{\lambda} \tilde{\alpha}_{1} \tilde{\alpha}_{\lambda} \tilde{\alpha}_{1} \tilde{\alpha}_{\lambda} \tilde{$ 

cognate for Arm. *learn* is Alb. *lerë* 'rock-slide' < \**leur*-. The Albanian word has been connected to OIr. *lie* and Gr.  $\lambda \tilde{\alpha} \alpha \zeta$  as well (Demiraj 1997: 237f.), but neither the Greek nor the Irish word can go back to a form containing \**u*.

14. ON *ái* 'great-grandfather'  $< h_2\bar{e}uh_2\bar{e}n$  (Mayrhofer 1986: 133, Rasmussen 1999: 399f.), cf. Goth. *awo* 'grandmother'. However, ON *afi* 'man, grandfather' cannot reflect  $h_2euh_2$ -o-, as Rasmussen claims, and the long vowel of *ái* can be due to contraction (cf. ON *hrár*  $< hrawa- < krouh_2$ -, *pace* Rasmussen, o.c.), i.e. \*awan- > án- with restored nom. *ái* (similarly already Lindeman 1997: 85).

15. CLuw. nom.acc. hīrūn, obl. hīrūd- (n.) 'oath'. Watkins (1993) connected this word to Gr. apá f. 'prayer, curse', Arc. καταργος 'cursed', Hitt. aruuae-<sup>zi</sup> 'to prostrate, bow' <  $h_2(e)ru-h_2$ -, with a reconstruction  $*h_2\bar{e}ru$ - to account for the Luwian word. Oettinger (apud Mayrhofer 1986: 133) derived the word from PIE  $*h_2er$ - 'to join' instead, using the same reconstruction  $*h_2\bar{e}ru$ . The difficulty with both etymologies lies in the allomorphy between  $h\bar{i}r\bar{u}n$  and  $h\bar{i}r\bar{u}d$ -. Several attempts have been made to explain it, either within Luwian or from a Proto-Indo-European perspective, see Starke (1990: 572ff.) and Melchert (2004). Melchert departs from a *t*-stem  $*h_2\bar{e}ru$ -t-, which would regularly produce nom.acc.sg. \*hīru, obl. \*hīrud-. Subsequently, the thematic neuter ending -an was added to the nom.acc.sg. form. The resulting \*hīruan regularly produced hīrūn and the long vowel of the suffix was introduced analogically into the oblique stem  $h\bar{i}r\bar{u}d$ . This seems to me a rather elaborate scenario to save an etymology that has never been more than tentative proposal. The two analogies Melchert proposes are far from trivial. The Luwian word obviously cannot be used as evidence for Eichner's law.

16. OCS *jugъ* 'south', which is often connected to Gr. αὐγή 'light, beam', reflects \* $h_2\bar{e}ug$ - according to Rasmussen (1999: 400). This is partly based on the acute intonation of the root, which must, however, be explained as a result of Winter's law. The acute intonation of the root is, if anything, rather to be taken as evidence against an original lengthened grade (cf. Pronk 2012). The other argument for a lengthened grade  $*\bar{e}$  is the initial \*j- of *jugъ*. The Slavic reflexes of initial \*jou- and \*ou- present a problem, cf. OCS  $u\check{z}e$ , *juže* 'already' ~ Lith. *jaũ*, OCS *utro*, *jutro* 'morning' ~ Lith. *aušrà* 'dawn'. The reflexes are largely identical within the same language, cf. Ru. *uže*, *utro*, ORu. *ugъ* versus Sln. dial. *jur*, standard *jutro*, *jug*, Cz. *již*, *jitro*, *jih*. In many other items \*(o)u- is consistently reflected as *u*-, cf. Cz. *uho* 'ear', *usta* 'mouth', *uzda* 'bridle', *um* 'mind', *učiti* 'teach', *ulica* 'street', *ujec* 'uncle'. We are apparently dealing with prothetic *j*- (also found with other vowels, cf. OCS *agnьсь* and *jagnьсь* 'lamb' <  $*h_2eg^{w}$ -*n*-) which arose in sandhi after front vowels and was retained in some words but not in others (Meillet 1922). It follows that, if the connection with Gr. αὐγή is correct, the Slavic word reflects  $*h_2eugo$ -or  $*h_2ougo$ -.

17. Gr. κτάομαι 'to acquire' next to dat.pl. κτεάτεσσι 'possessions' <  $*kt\bar{e}\mu\eta t$ - <  $*tk\bar{e}h_2$ - (Rasmussen 1999: 401). The *a*-vocalism of the present is late and probably secondary, so the root can be reconstructed as  $*t\dot{k}eh_1$ - (Beekes 2010: 788). The present κτάομαι has alternatively been analyzed as a denominative  $*t\dot{k}(h_1)-eh_2-ie/o$ - (LIV<sup>2</sup>: 619).

18. Gr. λάτρον 'payment, hire', Goth. *unlēps* 'poor', ON *láð* 'land, possession', *lóð* 'yield' < \**lěh*<sub>2</sub>- (Rasmussen 1999: 401). If the etymology is correct, which is rather uncertain, this could be an example of Eichner's law. Note, however, that the Germanic words appear to reflect a *to*-participle, where a lengthened grade would be morphologically awkward. Other alleged cognates adduced by Pokorny (1959: 665) are certainly unrelated.

19. OHG goumo, giumo 'gum, palate'  $\langle *\dot{g}^{h}h_{2}\bar{e}u$ - from  $*\dot{g}^{h}eh_{2}$ - 'to yawn' (Rasmussen 1999: 401), but "[t]he variant OHG giumen is late and has umlaut from the plural" (Kroonen 2013: 185).

20. Skt.  $c\bar{a}ru$ - 'agreeable' <  $k\bar{e}h_2$ -ru-, cf. Lat.  $c\bar{a}rus$  'dear' (Rasmussen 1999: 403). Mayrhofer (1992: 540) has an alternative etymology: "Vielleicht knH-ru- >  $k\bar{a}ru$ -, mit analogischer Übernahme des palatalisierten Anlauts von  $can^\circ$  <  $KenH^\circ$ ". This is

semantically equally satisfactory (cf.  $kan^{i}$ - 'to be pleased'); one is faced with a choice between a secondary word-initial palatal or a morphologically unexpected lengthened grade.

21. Lith. otrùs (4), Latv. ãtrs 'quick, fiery', OHG ātar 'quick', OE *cedre* 'immediately'  $< *h_2 \bar{e} tro$ - (Rasmussen 1999: 403). The root must have contained a second laryngeal to explain the Baltic vocalism and the Latvian acute. The Baltic forms have been connected with the Indo-European root  $h_2eh_1$ - 'to burn' (Derksen 2015: 340, cf. YAv. ātar- 'fire'). The Germanic forms, if cognate, appear to reflect a vrddhi-derivative of the type PGm. \*swēra- 'heavy', \*wēta- 'wet' (OE swær 'difficult', wæt). These are inner-Germanic formations, and the same will be true of PGm. \*ēdra- 'soon, quick'. There is no indication that the laryngeal was still present when the formation arose and, as a consequence, the adjective does not prove Eichner's law in Germanic. Although I prefer the analysis described above, there are alternative explanations for the irregular correspondence between the Germanic and Baltic forms. Kroonen (2013: 115) is inclined to believe that the Baltic words are borrowings from Germanic. If Kortlandt (2009: 46) is right that unstressed  $*\bar{a}$  and  $*\bar{o}$  merge in Baltic (e.g. in Lith. dovanà 'gift' <  $*deh_3$ -), an alternative reconstruction could be  $*h_1oh_1t$ -ro-/\**h*<sub>1</sub>*eh*<sub>1</sub>*t*-*ro*- (with reduplication, cf. Gr. ἀκύς 'fast' < \**h*<sub>1</sub>*oh*<sub>1</sub>*k*-*u*-?). However, alternating *e*- and *o*-grades in a *ro*-adjective are unexpected from an Indo-European perspective, because ro-adjectives predominantly have zero-grade in the root.<sup>13</sup>

22. Lith. vókas 'eyelid, cover' (3, 1), Latv. vâks, OCS věko, Cz. víko, Sln. véko, Ru. véko 'eyelid' (Rasmussen 1999: 404). The Balto-Slavic acute points to a proto-form containing a laryngeal. The neuter gender points to earlier end-stress (*pace* Rasmussen, l.c.), cf. S, Cr. *jäto* 

<sup>13</sup> For some exceptions see Vine 2002. An anonymous reviewer drew my attention to pairs like Gr.  $\tilde{\omega}vo\varsigma < *uosno-$  versus Lat. *vēnum*, Arm. *gin* < *uesno-* 'price' and Lith. *var̃das* 'name' < \**uord<sup>h</sup>o-* versus Lat. *verbum* 'word' < \**uerd<sup>h</sup>o-*. I agree that these cases are not easily explained, but I would hesitate to assume that this type of ablaut was common in PIE *o*-stems.

'flock', corresponding to Skt.  $y\bar{a}t\dot{a}m$  'motion, course'. According to Rasmussen, the Balto-Slavic form reflects PIE  $u\bar{e}h_2ko$ -, with unusual ablaut for an *o*-stem. Kortlandt's (2011: 330) reconstruction of quasi-PIE  $ueh_1$ - $k\dot{o}$ -,  $uoh_1$ - $k\dot{o}$ - is hardly more compelling, because e/oablaut in an *o*-stem is unexpected as well and it is uncertain whether  $uoh_1$ - $k\dot{o}$ - would actually produce Lith.  $v\dot{o}kas$ . There are no outer-Balto-Slavic cognates, so any scenario that starts from a PIE formation is speculative.

23. G Mohn, OHG maho, mago 'poppy' has been interpreted as  $m\bar{e}h$ -versus  $m\bar{a}h$ - (Rasmussen 1999: 404f.), but this is impossible. G Mohn continues MHG mahen,  $m\bar{a}n < mahna$ -, the zero-grade to PGm.  $m\bar{o}h$ -n-  $PIE meh_2k$ -n- (Kroonen 2013: 371).

24. OHG *rāba*, *ruoba*, Lith. *rópė* (1), RuCS *rěpa*, S, Cr. *rěpa*, Lat. *rāpum*, Gr. ῥάφυς, ῥάπυς, W (pl.) *erfîn* 'turnip'. According to Rasmussen (1999: 405f.) from  $*r\bar{e}h_2/_3p$ -. This solves only one of the many irregularities (W *er*-, the absence of a Greek prothetic vowel, the Greek consonantism). It is clear that we are dealing with a post-PIE *Wanderwort* which cannot be used as evidence in the present discussion.

25. OHG *stiura* 'steering-oar, post', ON *styri* 'helm, rudder', ON *staurr* 'pole', Gr. σταυρός 'pole', Skt. *sthāvará-* 'standing, firm, thick' <  $*stěh_{2u}$ -r- (Rasmussen 1999: 395). PGm. \*steuro 'steering-oar' looks like an inner-Germanic *n*-stem derivative with productive *e*-grade, perhaps based on the zero-grade \*stūra- (MLG stūr 'big, crude'). Its meaning would then originally be 'the big one', i.e. bigger than the other oars. Kroonen (2013: 479), on the other hand, rejects the etymological connection between ON *styri* etc. and Indo-European  $*steh_2$ -*u*- altogether.

26. ToA *ñom*, ToB *ñem* 'name'  $< *h_3n\bar{e}h_3mn$ , cf. Skt. *náman*-, Gr. övoµ $\alpha$ , Arm. *anun*  $< *h_3n(e)h_3mn$  (Rasmussen 1999: 408, Neri 2005: 236). The reconstruction of a lengthened grade in the root of a *men*stem finds no parallels elsewhere in Indo-European and is therefore to be avoided (Stüber 1997: 78, fn. 7; 81). If one reconstructs a neuter *n*- stem \* $h_3nom$ -n-, \* $h_3n\bar{e}m$ -n- instead (thus, e.g., Matasović 2009: 38), the need for Eichner's law disappears, but the root-ablaut becomes even more exotic.<sup>14</sup> Moreover, a laryngeal between the \*n and the \*mis required for Lat.  $n\bar{o}men$ , Du. *noemen* 'to call' and the attractive connection with Hitt. *hanna*- 'to sue' (Kloekhorst 2008: 282). I cannot accept the idea that Lat.  $n\bar{o}men$  obtained its long vowel from (g) $n\bar{o}sc\bar{o}$ (Cowgill 1965: 113, Stüber, o.c.). The secondary -g- in cogn $\bar{o}men$  was introduced after the change \*gn- > \*n-, as a result of which  $n\bar{o}$ -men could be associated with  $n\bar{o}$ - $sc\bar{o}$  (Leumann et al. 1977: 371). An earlier analogical change of a hypothetical \*nomen to a hypothetical \* $gn\bar{o}men$  is unmotivated (Beekes 1987: 2) and contradicted by Osc. gen.sg. **numneís** (Neri 2005: 210). Pinault (2008: 194) explained the

Schindler (1994: 398) listed the following possible examples of *o/ē*-ablaut: 14 Arm. iž, Gr. ὄφις; Goth. jer, Gr. ὥρος; Gr. ἦπαρ, Lat. iocineris; OIr. fiu 'worthy', fo 'good'. Of these, only the word for 'liver' is likely to actually contain a lengthened grade vowel. On Arm. iž, which Rasmussen (1999: 408) adduced as an example of Eichner's law, see Martirosyan (2010: 299). Most Indo-European languages point to PIE  $h_2(e)ng^{wh}-i$ - 'snake, viper' (possibly including Skt. áhi-, Av. aži-). Eichner's law on its own does not explain the irregular vocalism of Arm. iž 'viper', Gr. ὄφις 'snake' and ἔχις 'viper'. The idea that Goth. *jer* reflects  $*(h_1)i\bar{e}h_2$ - is based on the rootetymology that derives it from  $*(h_1)ieh_2$ - 'to go' (cf. LIV<sup>2</sup>: 310) which is dubious. Alternatives are discussed by Nikolaev (2010: 19ff.). The antiquity of the long vowel of Gr.  $\tilde{h}\pi\alpha\rho$  is debated, cf. Kloekhorst (2014b: 142ff.). If it is old, it remains unclear where in the paradigm the lengthened grade vowel was originally found (cf. Wodtko et al. 2008: 393). In the paradigm for 'name', this is even more difficult because the zero-grade of the root reflected in, e.g., OIr. ainm, OPr. emnes will have to be incorporated as well. OIr. fiu and its British cognates can reflect either \*uesu- or \*uēsu- (Schrijver 1995: 386f.). Finally, Rasmussen (1989: 255) and Nussbaum (1998: 151f.) adduced Homeric yuc 'goodly' as reflecting \* $h_1\bar{e}su$ - with a lengthened grade alternating with an o-grade in Hitt.  $\bar{a}ssu$ -'good'. Hitt.  $\bar{a}ssu$ - cannot directly reflect an o-grade \* $h_1osu$ - (cf. the discussion in Kloekhorst 2008: 223, who reconstructs a reduplicated stem  $*h_1oh_1$ -u- for Hittite and  $*h_1eh_1$ -u- for Greek). I conclude, with Nikolaev (l.c.), that there is no credible evidence for PIE nominal paradigms with  $o/\bar{e}$ -ablaut in the root.

Tocharian forms as the result of contamination of the original ablauting paradigm  $*h_1neh_3mn$ ,  $*h_1nh_3men > *n\bar{a}m\ddot{a}(n)$ ,  $*\alpha\tilde{e}m\ddot{a}n > > *\tilde{n}\alpha m\ddot{a}n$ . Pinault's reconstruction requires the assumption that the second laryngeal of  $*h_1nh_3men$ - would be lost without a trace, which, considering that Tocharian has a tendency to vocalize interconsonantal laryngeals, seems unlikely. Pinault's analysis would work if one reconstructs the word as  $*h_1nom$ -n-,  $*h_1nm$ -en- (thus Lindeman 1997: 133, Stüber 1997: 81f.), but, as was pointed out above, a reconstruction without an internal laryngeal is impossible on other grounds. Kortlandt reconstructs  $*h_3neh_1$ -mn-  $< *h_3neh_3$ -mn- with dissimilation of the second  $*h_3$  (apud Beekes 1987: 5; initial  $*h_3$ - is secured by Gr.  $\check{o}vo\mu\alpha$ ,  $v\acute{o}vo\muvo\varsigma < *n-h_3nh_3-mn$ -os, Phryg. onoman, Arm. anun and confirmed by Hitt. hanna- 'to sue').<sup>15</sup> This is an ad hoc solution, but it seems to be the least problematic of the options discussed here.

27. Hitt. <sup>É</sup> $h\bar{\imath}la$ - (c.) 'courtyard; halo'. Connected with  $h\bar{a}li$ - 'pen, corral', assuming that  $h\bar{a}li$ -  $< *h_2ol$ -*i*- and  $h\bar{\imath}la$ -  $< *h_2\bar{e}l$ -*e* $h_2$ - (Rieken 1999: 226, 246). This scenario is based on an idea by Melchert that  $*h_2\bar{e} >$  Hitt.  $h\bar{\imath}$ , which he later withdrew (1994: 143). We are probably dealing with a non-IE loanword (cf. Kloekhorst 2008: 342 and the literature cited there).

28. Lat.  $\bar{e}g\bar{i}$ , the preterit to  $ag\bar{o}$  'to drive', according to Weiss (*apud* Antilla 2000: 129) an imperfect to an original Narten present. The strongest argument against tracing the long vowel back to PIE is the fact that for PIE we can reconstruct only a thematic present to the root  $*h_2eg'$ - (cf. the overview in LIV<sup>2</sup>: 255f.), no aorist forms with a long vowel, nor a Narten present. The idea that this Latin preterit goes back to an imperfect of a Narten present can only be entertained once it has been shown that Narten presents exist outside Vedic (which is unlikely to be the case, cf. de Vaan 2004 and fn. 12 above) and that Eichner's law operated in Latin. Even then, we would have to explain

<sup>15</sup> Beekes (1987), Schmitt (1988: 486). It follows that the Laconian name 'Ενυμακρατίδας does not contain word for 'name'. Using this personal name as evidence for PIE initial  $*h_1$  is methodologically unsound.

why the Narten present had been replaced by a thematic present already in Proto-Indo-European, while the derived imperfect was preserved to surface in Latin, and in Latin only. It seems more reasonable to look for an explanation for  $\bar{e}g\bar{i}$  within Latin, e.g. as analogical after *facio*, *feci* (De Vaan 2008: 31). Although *ago* has a different present paradigm, the subjunctive stems are identical, which may have caused the analogy. Some analogical pressure could also have come from *fregī*, *frāctum* 'to break', cf. *egī*, *āctum*.

29. Lith. *jėgà* 'strength' (4), Latv. *ję̃ga* 'sense',  $\eta\beta\eta$  'youth' < \**Hįčh<sub>2</sub>g<sup>w</sup>-eh<sub>2</sub>-* (Nikolaev 2004: 213f., Villanueva-Svensson 2011: 16). For  $\eta\beta\eta$ , there are two forms with  $\dot{\alpha}$ - in literary authors, but there is more reliable evidence for  $\dot{\eta}$ - in the dialects (van Beek 2013: 321f. with fn. 1258). The etymon therefore cannot have contained \**h*<sub>2</sub>. Note that, as a result, the alleged connection with Gr.  $\dot{\alpha}\beta\rho\dot{\varsigma}$  'graceful' is impossible.

30. ON án, ón, OHG ānu 'id.' < PGm. ēnu < PIE  $*h_2$ énu, Go. inu 'without' < PGm.  $*enu < *\bar{e}nu'$  < PIE  $*h_2\bar{e}nu'$ , cf. Gr. ǎvɛʋ 'id.' < nom.  $h_2$ énu, loc.  $h_2n\acute{e}u / h_2n\acute{e}ui$  (Nikolaev 2007: 165, Kroonen 2013: 118). Beekes (2010: 102) writes about Gr. ǎvɛʋ: "A better comparison is with Skt. sanutár 'away, off, aside' < \*sen(H)u-ter (or \*snHu-?), Lat. sine 'without' < \*seni < \*snH-i, and ToA sne, ToB snai < \*snH-i. Thus, the Greek form could be from  $*snh_1$ -eu > \*saneu. In this case, ǎvɛʋ must be a psilotic form." Because the Greek evidence that would show that the Germanic form goes back to a proto-form containing  $*h_2$  is clearly controversial, we cannot use these words as evidence for Eichner's law.

31. Gr. σφήν 'wedge', OHG *spān*, OE *spōn*, ON *spánn*, *spónn* 'chip' < \**spěh*<sub>2</sub>*n*- (Vine 2006). The Gm. words have also long been thought to be cognate to Skt. *sphyá*- 'shoulderblade', Gr. σπάθη 'blade, spade', OE *spade*, *spadu* 'spade' < \**speh*<sub>2</sub>-. Vine assumes a development \**sph*<sub>2</sub>- > \**sp*<sup>h</sup>- to combine the two etymologies, but this sound law is very controversial for Greek (cf. De Decker 2011b). In either case, the long \*-*ē*- of the Gm. forms is most easily explained from a lengthened grade, presumably a nom.sg. \**sph*<sub>2</sub>-*én*. The timbre of the Germanic

vowel need not be due to Eichner's law, because restoration of the nom.sg. suffix \*-*ēn* after it was coloured by the preceding laryngeal is a trivial development. Note that in Vine's scenario it is the vocalism of σφήν that must be analogical (Neri *apud* Vine 2006: 296). I prefer to reconstruct the root as  $*sb^heh_1$ -. Gr.  $\sigma\pi\alpha\theta\eta$  'blade, spade' can then only be cognate with σφήν if it reflects a derivative from the *n*-stem:  $*sb^hh_1$ -*n*-*d*<sup>h</sup>-*eh*<sub>2</sub>, cf. the similar MIr. *sond* 'stake, beam', Lat. *sponda* 'bed(-frame)' <  $*sb^hh_1$ -*on*-*d*<sup>h</sup>- (cf. Matasović 2009: 334).

32. ToB *yerpe* 'disc, sphere' <  $*h_3\bar{e}rb^h$ -o-, if cognate to Lat. *orbis* 'disc, circle' <  $*h_3erb^h$ - (Weiss 2006). Weiss connects these words with  $*h_3erb^h$ - 'to inherit' (< \*'what is turned over'), in which case the Tocharian word would contain an uncoloured long  $*\bar{e}$ . As is more often the case in the examples discussed here, the reconstruction of the lengthened grade raises a new question: why would an *o*-stem like *yerpe* have an  $\bar{e}$ -grade? If the connection with the verbal root  $*h_3erb^h$ -is incorrect, however, the Tocharo-Latin etymon could reflect reduplicated  $*h_1e-h_1rb^h$ -/\* $h_1o-h_1rb^h$ - (cf.  $*k^we-k^wl-o-/*k^w(o)-k^wl-o-$ 'wheel').

33. ToB spel 'mud', Gr.  $\pi\eta\lambda\delta\varsigma$ , Dor.  $\pi\bar{\alpha}\lambda\delta\varsigma$  'mud, clay, dung' <  $*(s)p\tilde{e}h_{2}l$ - (Adams 2013: 731). The Tocharian word may be an example of non-colouring of long  $*\bar{e}$ , but a complicated scenario involving an unattested *vrddhi*-adjective is required to obtain a long vowel in the root of this word (see Malzahn 2014: 260). In general, the existence of *vrddhi*-derivatives with a lengthened grade vowel in Tocharian is very doubtful. Malzahn (o.c.) lists all possible examples, none of which is particularly convincing. The best-looking example is *yerkanto* 'wheel' from the present participle to PIE  $*h_2uerg_2$  'to turn', but the corresponding ToA wärkänt may well be the original form, in which case yerkanto was influenced by yerter 'felloe', itself of debated origin. The difficulties surrounding the ablaut grades combined with the fact that the Tocharian form has an initial \*s that is missing in Greek indicate that this Graeco-Tocharian etymology should be given up. The Greek word has alternatively been connected with OCS *kal* $\mathfrak{b}$ , Sln. *kâl* 'mud' < \* $k^{w}eh_{2}l$ -o-, which in turn also has an

alternative etymology, viz. as a cognate of Gr.  $\kappa\eta\lambda\zeta$  'stain', Lat.  $c\bar{a}l\bar{s}g\bar{o}$  'darkness' <  $*k^{w}eh_{2}l$ -o- (Meillet 1905-1906). In both cases, the mobile accentuation of the Slavic noun is unexpected in view of Hirt's law, so these etymologies, too, are doubtful.

34. Lat. (Lucretius) māteriēs, gen.sg. māteriāī 'matter, wood' (Steinbauer apud Mayrhofer 1986: 133f.). According to Steinbauer, māteriēs and other nouns belonging to the Latin fifth declension (he explicitly mentions acies 'sharp edge' and plebes 'people') could be explained from a hysterodynamic paradigm with the endings nom.sg. \*- $\acute{e}h_2$ , acc.sg. \*- $\acute{e}h_2$ -m, gen.sg. \*- $h_2$ - $\acute{o}s$ , with Eichner's law responsible for suffixal  $-\bar{e}$ . This is a novel approach to a morphological category, the origin of which has traditionally been the subject of debate. Schrijver (1991: 368ff.) raised a number of objections to Steinbauer's proposal, the most important of which is that in Lucretius the acc.sg. is normally *materiem* (8x), not *materiam* (1x), which makes it unlikely that the oblique  $\bar{a}$ -stem forms are based on the accusative, as Steinbauer suggests. A more plausible scenario was advocated by Lindeman (1997: 86), following Sommer (1902: 394f.), who derived *māteriēs* from a PIE  $ih_2$ -stem. One may depart from a  $v_r k \bar{i} s$ -type paradigm (Schrijver 1991: 386, Klingenschmitt 1992: 134), in which the old nom.sg.  $*m\bar{a}ter\bar{i}(s)$  was replaced by  $m\bar{a}teri\bar{e}s$  after the accusative *māteriem* on the model of nouns like *aciēs*, *aciem* (5th declension) or vātēs, vātem (3rd declension).<sup>16</sup>

35. The secondary 2sg. middle ending Skt. *-thās*, OIr. ipv. *-the* < \*-*th*<sub>2</sub>*e* + \*-*es* (Rasmussen 1999: 402). The equation with Gr.  $-\theta\eta\varsigma$  (Schwyzer 1977: 762) would require non-colouring of the long vowel (Oettinger 2013-2014: 163). Quite apart from the problematic nature of the required change \**th*<sub>2</sub> > Greek  $\theta$  (cf. De Decker 2011b), the Old

<sup>16</sup> Note that the vrkis-type is usually derived from o-stems (Lommel 1912: 38ff.), while māteriēs is derived from an athematic noun (deadjectival nouns of the type mollitiēs, mollitia 'softness' probably also derive from an athematic form). It may therefore be preferable to start from a proterodynamic, devi-type paradigm, but cf. the counterargument given by Schrijver 1991: 386.

Irish form cannot continue  $*-t\bar{e}s$  (Watkins 1969: 188). The direct equation of the Old Irish and Sanskrit endings with the Greek ending is thus impossible and there is no need for a reconstruction that requires Eichner's law.

### Summary of the evidence

In 1988, Jasanoff observed that there is no single example that proves the correctness of Eichner's law, but "when the whole body of evidence is taken together [...] the case for Eichner's hypothesis [is] fairly strong". This is what we have done above, and it turns out that Jasanoff's cautious statement is still too optimistic. It is correct that there is not a single example that proves the correctness of Eichner's law, but combining all the evidence for it hardly strengthens its case. Most alleged examples cannot reflect Eichner's law, even if it is assumed that the law applied to the branch in question. In those examples in which a preform containing  $*h_2$  or  $*h_3$  is conceivable, the reconstructed lengthened grade vowel is often unexpected from a morphological point of view (exceptions are ToA kñasu, kñasäst, Lat.  $\bar{e}g\bar{i}$  and OE  $sp\bar{o}n$ ). In such cases (e.g. ToB  $\tilde{n}em$  and spel), reconstructing a lengthened grade and assuming that Eichner's law applied is an arbitrary solution for unexpected lack of colouring by \* $h_2$  or \* $h_3$ . Examples like Hitt. *mehur* and *šehur* face the same objection: the proposed etymologies that require Eichner's law also require the reconstruction of a lengthened grade vowel for which there is no comparative evidence. Finally, there is a small body of counterexamples to Eichner's law, which we will discuss next.

### Counterevidence to Eichner's law

The number of potential counterexamples to Eichner's law that can be found in the literature (mainly in Schrijver 1991: 129f., cf. also Kortlandt 2005) is much smaller than the number of forms in which Eichner's has been argued to have applied. There are five items to be discussed here:

1. Lat. sāl, Latv. sāls 'salt', which Schrijver (1991: 129f.), following Kortlandt (2009: 56), reconstructs as  $s\bar{e}h_2$ -l. This noun is better

analyzed as an ablauting *l*-stem than as an acrostatic root noun  $*s\bar{a}l$ -/*sal*- in view of its mobile accent in Greek and Slavic. Although the Latin form can in theory reflect a full grade  $*seh_2$ -*l*-, the Latvian form must have contained a long vowel because of its non-acute intonation. Other forms of the Indo-European paradigm can be reconstructed as acc.sg.  $*sh_2$ -*el*-*m*, gen.sg.  $*sh_2$ -*l*-*e*/*os* (Lubotsky 1989, Kortlandt, l.c.). Because the amphidynamic paradigm thus reconstructed was probably quite rare in Proto-Indo-European – Hitt. *keššar* 'hand' being the only surviving paradigm of this type (Kloekhorst 2013) – one could consider the alternative reconstruction of the nom.sg. as a hysterodynamic  $*sh_2$ - $\bar{e}l$ . In either case, it seems that Eichner's law did not operate. Analogical colouring of  $*sh_2$ - $\bar{e}l > *s\bar{e}l$  to  $*s\bar{a}l$  after the acc.sg.  $*sh_2$ -*el*-*m* > \*salm on the model of root nouns with  $*\bar{e}/e$  or  $*\bar{o}/o$  ablaut cannot be ruled out completely, but one wonders why the expected form  $*s\bar{e}l$  is not preserved anywhere.

2. Lat. *nāvis* 'ship', according to Schrijver (1991: 130) from  $*n\bar{e}h_2$ -*u*-, but it is difficult to rule out that *nāvis* reflects a full grade  $*neh_2$ -*u*-. This word is therefore inconclusive regarding Eichner's law.

3. Lat.  $\bar{a}cer$  'sharp' <  $*h_2\bar{e}kri$ - (Schrijver 1991: 132ff.). An *i*-stem from the root  $*h_2ek$ - 'sharp' is also found, as a noun, in Lat. *ocris* 'top', U *ocar* 'mountain fortress', Gr. ŏκρις 'mountain top', ăκρις 'mountain top', Skt. -*áśri*- 'edge'. Alternative explanations for the long vowel are reduplication, i.e.  $*h_2e-h_2kri$ - (cf. Skt. *cákri*- 'doing' <  $*k^we-k^wr-i$ -, Gr. ἀδίς 'pangs of childbirth' <  $*h_3e-h_3d-i$ -, van Beek *apud* Beekes 2010: 1676), or contraction with a preceding vowel in a compound, which would also explain the *i*-stem (Hamp 1988). Schrijver objected to the latter scenario because "it is improbable that  $*-oh_2o$ - yielded  $-\bar{a}$ -", because compounds with  $\bar{a}cer$  as their second member are not attested in Latin and they would be of an unusual type if they had existed at an earlier stage. The former objection only holds if one reconstructs  $*-h_2okri$ - with an *o*-grade rather than  $*-h_2ekri$ - with an *e*-grade. Schrijver's second objection seems valid enough. Nevertheless, Lat.  $\bar{a}cer$  cannot be used as a counterexample to Eichner's law, because it remains uncertain whether its long vowel goes back to PIE \*- $\bar{e}$ -.

4. OIr. dg (*u*- and *o*-stem) 'fight, prowess', which Zair (2012: 253) derives from a root noun  $*h_2\bar{e}g$ . As an alternative, Zair mentions a reconstruction  $*h_2\bar{o}go$ - "perhaps a *vrddhi* derivative from a root noun  $*h_2og'$ -". The latter option seems unlikely and unnecessarily complicated: there are no indications that *vrddhi* derivatives with a lengthened grade vowel were ever productive in Celtic, as they were in Germanic and Indo-Iranian. The word can be regarded as a genuine counter-example to Eichner's law because its analysis is more straightforward without the assumption of Eichner's law.

5. Gr. (Dor.) acc.sg. βῶν, Latv. gùovs, Umb. acc.sg. bum 'cow' < PIE  $g^{w}\bar{e}h_{3}(u)m$  (Schrijver 1991: 129f.) or  $g^{w}h_{3}\bar{e}(u)m$  (Pronk 2016: 28f., Nielsen Whitehead 2018).<sup>17</sup> This is one of the famous examples of Stang's law, together with Gr. acc.sg. Zñv 'Zeus', Skt. acc.sg. dyām 'sky' < PIE \* diēm < \* dieum (Stang 1965, Schindler 1973, Pronk o.c. with reff.). There is general agreement that Gr. (Dor.) βῶν, Latv. guovs and Umb. bum contain a lengthened grade vowel. The question is, however, whether the laryngeal reconstructed in the proto-forms above is necessary (cf. Wodtko et al. 2008: 191 with lit.). It seems very likely that it is indeed. A laryngeal is required to allow the attractive comparison with Gr. βόσκω 'tend, feed (cattle)', βοτόν 'cattle', βώτωρ 'shepherd' <  $*g^{w}(e)h_{3}$ -. The laryngeal further explains the accentuation of Gr. βοῦς (Beekes 2010: 232) and Sln. gâvez 'comfrey', lit. 'cow-tongue' (with a long falling accent reflecting a Proto-Slavic acute  $-a - \langle *-eh_{3} - \rangle$ .<sup>18</sup> It also explains the fact that the root vowel of Skt. dat.sg. gáve, loc.sg. gávi, ins.sg. gávā, gen.pl. gávām was not affected by Brugmann's law (Lubotsky 1990: 134). Finally, the reconstruction  $*g^{w}h_{3}u$ - provides Av. mat.gu9a- 'covered in

<sup>17</sup> The Latv. nom.sg. gùovs received its vocalism and intonation from the acc.sg.

<sup>18</sup> This etymology goes back to Berneker (1908-1914: 297f.). Cognates in Slavic are Ru. dial. gavjaz, Ukr. dial. hávjaz 'Cynoglossum officinale', S, Cr. gàvēz 'Symphytum officinale'.

excrement', MP  $g\bar{u}h$  'excrements' with an attractive etymology (cf. Ru. govnó 'dung' from  $*g^{w}h_{3}eu$ -). Nielsen Whitehead (2018) recently discussed the structural arguments in favour of the the reconstruction of an *u*-stem  $*g^{w}eh_{3}-u$ . There is, on the other hand, no evidence that strongly favours a reconstruction  $*g^{w}ou$ - over  $*g^{w}eh_{3}-u$ -, as was already observed by Schindler (1973: 151f.). The word for cow occurs as a second member in a number of compounds in which there is no trace of a laryngeal, e.g. Gr. ἑκατόμβη 'sacrifice of cattle', Skt. satagvin- 'consisting of a hundred cows', OPr. toponym batagu-(Sattagydia, land of a hundred cows) < PIE  $*d\acute{k}mtom-g^{w}(h_{3})u$ -. As Schindler pointed out (l.c.), this is not particularly strong evidence against the presence of a laryngeal in the root (pace De Decker 2011a), because root-final laryngeals tend to be lost in this position, as in the frequently cited examples Gr. veoyvóc 'new-born' < \*neu-o $gn(h_1)$ -o- and Skt. abhva- 'monster, monstrous' <  $(n-b^hu(h_2))$ -o- or \**n*-*b*<sup>*h*</sup>(*h*<sub>2</sub>)*u*-*o*-. In the case of compounds in \*-*g*<sup>*w*</sup>*h*<sub>3</sub>*u*-, with zero-grade as the second part of a compound, laryngeal metathesis to  $*-g^w uh_3$ may be the eventual cause of the absence of a reflex of the laryngeal.

The most likely pre-form of Gr.  $\beta \tilde{\omega} v$ , Latv. *gùovs* and Umb. *bum* is thus PIE  $*g^w h_3 \bar{e}(u)m$  or  $*g^w \bar{e} h_3(u)m$ . In either case, the (acc.sg. of the) word for 'cow' forms a serious counterexample to Eichner's law in Greek, Baltic and Italic respectively.

#### Conclusion

There is no compelling evidence for Eichner's law in the protolanguage and there are serious objections to it in connection with the phonological status of laryngeal colouring, so Eichner's law as a rule of Proto-Indo-European cannot be upheld. We may ask ourselves whether it can be upheld for any of the daughter languages. Based on the data discussed above, one could consider the hypothesis of noncolouring of long  $*\bar{e}$  in Anatolian to provide Hitt.  $m\bar{e}hur$ ,  $m\bar{e}hun$ - and perhaps  $s\bar{e}hur$ ,  $s\bar{e}hun$ - with a conceivable but hardly compelling rootetymology, thus upholding much of Eichner's original article. In both cases, however, the reconstruction of the lengthened grade vowel that would be the subject of Eichner's law is not supported by any comparative evidence. Colouring of a long vowel did take place in Greek, Baltic and Italo-Celtic (Doric βῶν, Latv. sals, guovs, Lat. sal, Umb. bum and OIr. ág). For Albanian, Armenian, Germanic, Indo-Iranian and Tocharian we have no convincing evidence one way or the other. Considering the fact that there is no counterevidence to Eichner's law in Anatolian, phonetic laryngeal colouring of a long vowel might be a post-Indo-Anatolian innovation, or even a post-Indo-Tocharian innovation if one assumes that Tocharian was the second branch to split off. In that case the palatalization of ToA kñasu, kñasäst could be regular (Peyrot 2013: 442), although the palatal -ñcan also be explained as analogical. However, we should not ask ourselves whether a sound law *can* be posited, but whether it *must* be. Over the years it has turned out that Eichner's law does not offer a better insight in the prehistory of Indo-European and can only be used to support a few etymologies of words that do not belong to the core Proto-Indo-European lexicon. We have seen in this article that there is not a single word in any branch that receives a better etymology with Eichner's law than without it. The time has come to abandon it.

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