Das Nomen im Indogermanischen





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Morphologie, Substantiv versus Adjektiv, Kollektivum Akten der Arbeitstagung der Indogermanischen Gesellschaft vom 14. bis 16. September 2011 in Erlangen.

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The Proto-Indo-European Acrostatic Inflection Reconsidered

Alwin Kloekhorst

In a recent article I reviewed the reconstruction of the PIE accent-ablaut paradigms, especially taking into account the evidence from the Anatolian branch (Kloekhorst 2013). Although in that article I did comment on the reconstruction of an acrostatic type, most emphasis was laid on the reconstruction of the accentually mobile paradigms. In the following I want to give the acrostatic paradigms the full attention they deserve.

The term 'acrostatic' was first coined by Eichner (1973:68, 91 n. 33) in order to denote a nominal inflection type in which in all case forms the root of the noun was accented, whereas the suffix and the endings were unaccented. According to Eichner, the corresponding ablaut grades were lengthened grade in the root of the strong (direct) cases, full grade in the root of the weak (oblique) cases, and zero grade in the suffix and endings: e.g. nom.-acc.sg. * $i\dot{e}k^w$ -r, gen.sg. * $i\dot{e}k^w$ -r-s 'liver'.

Two years later, Schindler $(1975a:4-8)^1$ claimed the existence of another acrostatic inflection type, namely one in which the root of the direct case forms show o-grade instead of \bar{e} -grade: e.g. nom.-acc.sg. * $u\acute{e}d$ -r, gen.sg. * $u\acute{e}d$ -r-s 'water'. This latter type he calls "flexion acrostatique I", and the former "flexion acrostatique II".

This basic division between an acrostatic type I with \acute{o}/\acute{e} -ablaut in the root and an acrostatic type II with \acute{e}/\acute{e} -ablaut in the root has been followed ever since and can nowadays be found in all handbooks.²

Since it is almost fourty years since the acrostatic type was first postulated, it may be worth while to review the evidence again, and to investigate to what extent Eichner's and Schindler's claims are still valid. The discussion will be restricted to suffixed nouns; I plan to treat the acrostatic root nouns at another occasion.

The acrostatic type with \dot{e}/\dot{e} -ablaut

Although coined as "flexion acrostatique II" by Schindler, I will treat the \dot{e}/\dot{e} -ablauting type first. As we have seen above, this type was first postulated by Eichner in a 1973 article in which he discusses the etymology of the Hittite word $m\bar{e}hur$ 'time'. The line of thought that leads to the supposition of an acrostatic reconstruction with \dot{e}/\dot{e} -ablaut, runs as follows (68–69):

- (1) Semantically, the word $m\bar{e}hur$ is best derived from the PIE root * meh_2 "zeitlich passend sein, die / zur rechte(n) Zeit sein";
- (2) Formally, this connection is possible if the root syllable would be in lengthened grade;³
- (3) It is a morphological characteristic of the paradigm of *mēḫur* that the suffix is consistently in zero-grade: *mēḫ-ur*, *mēḫ-un-aš*, *mēḫ-un-i*;

¹ Cf. also Schindler 1975b:262.

² Meier-Brügger 2010:350f.; Clackson 2007:80f.; Fortson 2010:120.

³ Eichner does not make explicit why he asserts this, but there can be no doubt that he is well aware of the fact that a preform *meh2ur* should have yielded Hitt. **mahhur*. It is only on page 72 that he presents his famous non-colouration law, which states that PIE long *ē next to *h2 has retained its vowel quality all the way into Hittite.

- (4) On the basis of Gk. $\varphi p \in \varphi$ 'well' $< *b^h r \in \psi r$ and Gk. $\tilde{\eta} \pi \alpha p$, Av. $y \bar{a} k a r \partial$ 'liver' $< *j \in k^w r$ it can be assumed that if in a given r/n-stem the suffix is in zero-grade, the root could at least at one spot in the paradigm be in lengthened grade;
- (5) Since in the word for 'liver' also forms with full grade in the root are attested in the separate languages, we can assume a declination type that showed an alternation of $*\bar{e}$ and *e, but never $*\emptyset$, in the root;
- (6) All these facts can be explained by assuming that in this declination type the root was always accented, and therefore can be called 'acrostatic'.

Eichner's article has had a great impact on the scholarly community and his reconstruction of an \bar{e}/\dot{e} -ablauting acrostatic paradigm has been generally accepted ever since. Yet, upon closer scrutiny, his reasoning may not be as compelling as it always looked. Take, for instance, the last step in Eichner's line of thought: the \bar{e} -grade is assigned to the direct cases and the e-grade to the oblique cases. Eichner does not make explicit why he does so. Moreover, if we look at the words on the basis of which Eichner reconstructs ē/e-ablaut, namely 'liver', 'well', and 'time', we see that there simply is no conclusive evidence for determining an original distribution between the two grades. The word for 'liver' in Greek shows $*\bar{e}$ throughout the paradigm ($\tilde{\eta}\pi\alpha\rho$, $\tilde{\eta}\pi\alpha\tau\sigma\varsigma$), whereas in Sanskrit it shows *e throughout ($y\acute{a}krt$, yaknás). These therefore cannot be used for reconstructing an original distribution between * \bar{e} and *e. In Avestan, the word for 'liver' seems to shows * \bar{e} in its direct case form (nom.acc.sg. yākarə),⁵ but since no oblique case forms of this word are attested, it cannot be ascertained that this $*\bar{e}$ is specific to the direct case. As long as we cannot exclude the possibility that the Avestan oblique cases of 'liver' were of the shape ** $y\bar{a}kn$ -, the presence of \bar{a} in the nom.-acc.sg. form $y\bar{a}kar\partial$ is non-probative for establishing an original distribution between $*\bar{e}$ and *e.

In the case of 'well', Gk. φρέ $\bar{\alpha}$ ρ, φρέ $\bar{\alpha}$ τος, which reflects earlier *φρηγ α ρ, *φρηγ α τος, shows * \bar{e} throughout the paradigm, and therefore does not provide any information on an original distribution between * \bar{e} and *e either. The same goes for the Hittite word for 'time', $m\bar{e}hur$, $m\bar{e}huna$, which also shows a long \bar{e} throughout the paradigm and therefore cannot be used in determining an original ablaut distribution.

We must conclude that there is no evidence whatsoever that demands that the original ablaut in these words was $*\bar{e}$ in the direct cases and *e in the oblique cases: it could just as well have been the other way around. Apparently, Eichner's reconstruction was only based on a preconceived idea that "starke Kasus" should have "strong" vocalism and "schwache Kasus" "weak" vocalism. Yet, having such theoretical preconceptions is of course methodologically incorrect.

It therefore seems worth while to discuss the root vocalism of the acrostatically inflected nouns again in detail, and in this way to attempt to establish what can and cannot be said with certainty on the ablaut pattern (or perhaps even patterns?) of the root. I will do so by separately treating each word that is relevant to the discussion.

⁴ If the short a in Sanskrit indeed reflects *e, cf. below.

⁵ But see below for an extensive treatment of this form.

⁶ See below, however, for the assumption that this $*\bar{e}$ goes back to earlier $*eh_1$.

'liver'

As we have seen, the word for 'liver' is one of Eichner's main arguments for reconstructing \acute{e}/\acute{e} -ablaut in this category. It is therefore important to be sure if the interpretation of this word is correct. Let us start with the Iranian evidence.

The philological facts regarding the Avestan word for 'liver' are treated in de Vaan (2003:68f.). He states that this word is only attested in Frahang- $\bar{\imath}$ oim 189, a passage that is attested in two manuscripts only. These two manuscripts differ in their spelling of the word, however: the one, K20, writes $yakar \bar{\imath}$, whereas the other, M51, has $y\bar{a}kar$. According to de Vaan, both manuscripts are copies of the same original, which implies that one of the spellings must be incorrect. Moreover, de Vaan states that manuscript K20 is of an older age and often has the better reading when compared to manuscript M51. The conclusion must therefore be that $yakar \bar{\imath}$ is the correct spelling and that $y\bar{a}kar$ is faulty. An important corroboration of this view is that the short a of Av. $yakar \bar{\imath}$ neatly fits the short a as attested in the other Iranian words for 'liver', Middle Pers. ykl, Mod.Pers. jigar, Khot. $gyagarr\bar{\imath}$, which all reflect *jakr(-). Moreover, the short a fits the short a as attested in Skt. yakrt 'liver', which shows that for the Indo-Iranian branch as a whole we must reconstruct a preform *jakr, with a short *a. Therewith, the Indo-Iranian evidence for a lengthened grade has vanished.

The only remaining branch where a lengthened grade is attested is Greek, where the word for 'liver' is $\tilde{\eta}\pi\alpha\rho$, $\tilde{\eta}\pi\alpha\tau\sigma\zeta$, with an η that can only reflect PIE * \bar{e} . Although this form seems to undisputably point to a root * $i\dot{e}k^{\nu}$ -, it was Szemerényi (1956) who raised some doubt on the probative value of this noun. He pointed to the fact that other Greek words denoting organs contain an η as well, like $\kappa\tilde{\eta}\rho$ 'heart', $\tilde{\eta}\tau\rho\rho$ 'heart', and $\sigma\pi\lambda\dot{\eta}\nu$ 'spleen', which raises the possibility that the η of $\tilde{\eta}\pi\alpha\rho$ has secondarily been taken over from these. Although this scenario is just a possibility, it does show that the probative value of $\tilde{\eta}\pi\alpha\rho$ may be less great than usually assumed.

In that sense it is interesting to look at the Latin word for 'liver'. Here we find a nom.-acc.sg. form *iecur* besides an oblique stem *iociner*-. It must be stressed that this is the only time that we find an innerparadigmatic alternation between the direct and the oblique stem in the word for 'liver'. It therefore has every potential of reflecting something archaic and I will therefore treat its origin in detail.

It is remarkable that the direct stem iecur shows a short e, iecur, and not a long one, pointing to a preform $*iek^w r$, and not $**iek^w r$. Eichner (1973:69) therefore assumes that this form has taken over the short *e from the oblique stem, which he reconstructs as $*iek^w - n$. It is problematic, however, that the oblique stem that is synchronically attested in Latin, iociner-, cannot directly reflect the stem $*iek^w - n$ - as reconstructed by Eichner: the Latin stem shows o-grade in the root, ioc-, instead of e-grade, and full grade in the suffix, -in- *-en- /-on-, instead of zero-grade. Eichner therefore states that the stem iocin- must be analogical after the "'holokinetischen' Typ *yedor, *yoden-, *udnes". Apart from the fact that

⁷ Eichner's reconstruction of 'liver' is not followed by everyone, however. Cf. NIL:392–395 for an overview of the different opinions on the reconstruction of the PIE paradigm of 'liver'.

⁸ The attestation of 'liver' in Vn 22 must according to de Vaan be regarded as a quotation taken from the Frahang-ī ōim, and should therefore be left out of the discussion.

⁹ Cf. Rix 1965 for an extensive philological treatment of this word. He shows that although some other stems of this word are attested as well (direct *iocur*, oblique *iecor*-, *iecinor*-), there can be no doubt that the original paradigm was *iecur*, *iociner*-. Apparently, the secondary stem *iocur* has taken over its *o* from *iociner*-. The oblique stem *iecor*- (abl.sg. *iecore*, gen.sg. *iecoris*, gen.pl. *iecorum*) is evidently based on the direct stem *iecur*. The oblique stem *iecinor*- must be a blend of the stems *iociner*- and *iecor*-.

nowadays the holokinetic type is not reconstructed with o-grade in the root anymore, 10 Eichner must admit that "dieser Ablauttyp im histor. Lateinischen weder direkt noch indirekt bezeugt ist" (1973:94 n. 55). Moreover, his scenario implies that an original paradigm $*i\acute{e}k^{w}r$, $*i\acute{e}k^{w}-n$ - was first levelled to $*i\acute{e}k^{w}-r$, $*i\acute{e}k^{w}-n$ -, after which it was secondarily changed to *iék*-r, *iok*-én-. Especially the latter step seems improbable to me: why would a paradigm that has undergone levelling in order to regularize it, later on be secondarily remade into an irregular paradigm again? The same question can be asked for Klingenschmitt's assumption that the oblique stem iociner- is the result of metathesis of an original stem *iecinor- (1992:118). 11 According to Klingenschmitt, this metathesis took place in order to restore the element -iner- that is also found in itiner-, the oblique stem of iter 'journey, road'. As de Vaan (2008:296) rightly remarks, why then was this postulated preform *iecinor-12 not remade into *ieciner-? De Vaan himself (ibid.) rather assumes that the o must have an inner-Latin phonetic origin, and suggests that io- may be regarded as "a weakening [of ie-] in pretonic position", for which he compares ianitrices 'wives of brothers' < *ienitrices. He does not explain, however, why in ianitrices this weakening apparently yielded *ia*-, whereas in *iociner*- we find *io*-.¹³

We see that these morphological and phonological scenarios cannot explain the oblique stem iociner-. Instead, I agree with Rix (1965:85) that this stem "Erbe aus voreinzelsprachlicher Zeit sein [muß]" and can only reflect a PIE stem $*iok^w$ -en-. ¹⁴ This implies that the short e of nom.-acc.sg. $i\check{e}cur$ cannot have been the result of an innerparadigmatic analogy, and therefore must be original: $*i\acute{e}k^w r$. ¹⁵

On the basis of the Latin material it cannot be conclusively determined whether the paradigm for 'liver' was statically accented or not, although the presence of a full grade in the suffix syllable of $*iok^w$ -en- does not really fit an acrostatic accentuation. Fortunately, the Sanskrit material is more telling in this regard, however.

In Sanskrit, the word for 'liver' shows mobile accentuation: nom.-acc.sg. yákṛt, gen.sg. yaknás. This mobile accentuation is of course unpleasant for the theory that the word originally was acrostatically accented. In order to explain this discrepancy, Eichner (1973:69) plainly states that "im Vedischen der Akzent verschoben [wurde]". Yet, this can hardly be correct. It is well known that in Sanskrit accentual mobility is rare: almost all nouns synchronically display columnar accentuation. This implies that in a pre-stage of Sanskrit a massive regularization of accentuation must have taken place, which makes it unlikely that in the word for 'liver' an original columnar accentuation would have been secondarily changed into a mobile one. One could of course argue that this perhaps was a specific development that only took place in heteroclitics. Yet, this cannot be correct either: the hete-

¹⁰ Cf. e.g. Meier-Brügger 2010:338.

¹¹ Thus also hesitatingly Weiss 2009:257 fn. 2.

¹² Note that the synchronically attested stem iecinor- clearly is a late secondary formation, cf. fn. 9.

¹³ Moreover, his assumption that *io*- must have an inner-Latin phonetic origin is based on a false analysis of the material. He states that the fact that "*ie*- [is found] in all di- and trisyllabic forms, and *io*- in most four- and fivesyllabic forms [...] points to a phonetic ratio". Yet, the actual distribution is that *ie*- only occurs in the stem *iecur / iecor*-, whereas *io*- only occurs in the stem *iociner*-, which means that synchronically the distribution is morphological instead of phonetic.

¹⁴ According to Rix, the original paradigm for 'liver' inflected as follows: "NAcc. *iekur-t, Gen. *ikunes, Loc. *ioku-en'. He therefore must assume that the stem of the loc.sg. form has spread in Latin to the other oblique cases

¹⁵ Which virtually proves that the long $*\bar{e}$ of Gk. $\tilde{\eta}\pi\alpha\rho$ must indeed be of a secondary origin.

¹⁶ Cf. Lubotsky 1988:1.

roclitic nouns áhar, áhnas 'day' and udhar, udhar 'udder' are columnarly accented, which shows that there was no such thing as a general accent shift in heteroclitics.

There can be only one conclusion: the mobile accentuation of yákrt, yaknás must be original, which means that the PIE word for 'liver' cannot have been acrostatically inflected: instead it must have had a mobile accentuation.

Also Rix (1965) reconstructed a mobile accentuation for the word for 'liver', in the following way: nom.-acc.sg. * $i\acute{e}k^w r$, gen.sg. * ik^w - $n-\acute{e}s$, loc.sg. * iok^w - $\acute{e}n$. His reconstruction of the gen.sg. form as * ik^w - $n-\acute{e}s$ is based in Skt. $yakn\acute{a}s$ and Gk. $\Hagnormalfont{\pi}\alpha\tau\sigma\varsigma < *-\eta$ -t-os, which seem to show zero-grade in the suffix. Yet, the Greek oblique stems in - $\alpha\tau$ - are clearly secondary, and therefore cannot be used as evidence. The probative value of Skt. $yakn\acute{a}s$ is low as well: we can prove for some heteroclitics in Sanskrit that their desinentially stressed oblique stem must be secondary. Compare, for instance, gen.sg. $asn\acute{a}s$ 'blood'. This form is often reconstructed as * $h_1(e)sh_2$ - $n-\acute{e}s$ (or * $h_1(e)sh_2$ - $n-\acute{o}s$), but this cannot be correct: such a pre-form should have yielded Skt. ** $asin\acute{a}s$. Instead, we must assume that the PIE gen.sg. form was suffixally stressed, * h_1sh_2 - $\acute{e}n$ -s. This form should regularly have yielded pre-Skt. * $as\acute{a}ns$, * $as\acute{a}n$

We can conclude that the PIE word for 'liver' was not acrostatically inflected at all. Instead, it was proterodynamically accented and showed an e/o-ablaut in the root: * $i\acute{e}k^w$ -r, * iok^w - $\acute{e}n$ -s. This inflection is best preserved in Latin, where we find iecur, iocineris. In Sanskrit, the oblique stem * iok^w - $\acute{e}n$ -is secondarily replaced by * iok^w -n- \acute{V} , yielding gen.sg. $yakn\acute{a}s$, etc. In Greek, the nom.acc.sg. form * $i\acute{e}k^w r$, which regularly should have developed into * $\~{\epsilon}\pi\alpha\rho$, apparently took over the η of words like $\kappa\~{\eta}\rho$ 'heart', $\~{\eta}\tau$ o ρ 'heart', and $\sigma\pi\lambda\acute{\eta}\nu$ 'spleen', yielding $\~{\eta}\pi\alpha\rho$.

It must be admitted that the root ablaut between *e in the direct cases and *o in the oblique cases is unique: it has to my knowledge not been reconstructed for any other word. Below, I will therefore provide a scenario how it may have come about, and show that there are a few other candidates that may have shown such an ablaut as well.

'well'

Eichner also mentions the word for 'well' as one of the words on the basis of which one can reconstruct lengthened grade in this category. According to him, Gk. φρέ \bar{a} ρ 'well', which is generally thought to go back to *φρηγαρ through quantitative metathesis, must reflect * $b^h r \dot{e}_u - r$, with a lengthened grade in the root (1973:68). Yet, it is remarkable that one of the cognates of this word, Germ. *brunna- 'well, source', seems to show zero-grade in the root. According to Eichner's own definition, acrostatic paradigms never had zero-grade in the root, which means that already on the basis of Germ. *brunna-, we should be hesitant to reconstruct an acrostatic inflection for this noun. Moreover, the reconstruction of Gk. φρέ \bar{a} ρ < *φρηγαρ as * $b^h r \dot{e}_u - r$, is only one of several possibilities. The form could in principle also reflect * $b^h r \dot{e} h_1 - u r$, with full grade in the root.²⁰ In combination with the zero-grade

¹⁷ The oblique stem *h₁sh₂-en- is reflected in Lat. san-guis and Hitt. išḥan- (cf. de Vaan 2008:537; Kloekhorst 2008:260).

¹⁸ With generalization of the full grade of the root, i.e. virtual $*h_1esh_2$ -én-s.

¹⁹ As is also done by Beekes 1985:4-6.

²⁰ On the basis of Greek alone, we could in principle reconstruct $*b^h r \acute{e}h_2$ -ur, with $*h_2$, as well, but on the basis of Arm. *albiwr* 'source' < earlier $*b^r e \~wr$, it is clear that we must reconstruct $*b^h r e h_1$ -ur, with $*h_1$.

root as attested in Germ. *brunna-, it is therefore more attractive to reconstruct a proterodynamic paradigm * $b^h r \acute{e}h_l - u \acute{e}r$, * $b^h r h_l - u \acute{e}n$. We then can assume that in Germanic the oblique stem * $b^h r h_l - u \acute{e}n$ - was replaced by * $b^h r h_l - u n - \acute{V}$, 21 which underwent laryngeal metathesis to * $b^h r u h_l n \acute{V}$ -. This later form regularly yielded * $b^h r \bar{u} n \acute{V}$ -, which with Dybo's shortening developed into * $b r u n \acute{V}$ -. 22

We can conclude that the word for 'well' was not acrostatically inflected at all, and that it did not contain a lengthened grade. Instead it was proterodynamic: $*b^h r \acute{e}h_l - ur$, $*b^h r h_l - u\acute{e}n - s$.

'time'

The main theme of Eichner's 1973 article in which he first proposed the existence of an acrostatic type with e/e-ablaut, was the Hittite word mehur 'time'. Eichner was the first to stress the importance of the difference between mehur and e.g. pahhur 'fire': whereas the latter shows full grade in the suffix of its oblique forms (gen.sg. pahhuenaš, dat.-loc.sg. pahhueni), the former shows zero-grade in these forms (gen.sg. mehunaš, dat.-loc.sg. mehuni). Eichner's conclusion that, unlike pahhur, which was in its oblique forms stressed on the suffix (*pahhuenaš, *pahhueni), mehur must in these forms have been stressed on the root (*mehunaš, *mehuni), has been generally accepted. In that sense there can be no doubt that mehur represents an acrostatically inflected noun. The relevant question now is: what was the grade (or grades) of the root syllable?

Until 1973, most scholars believed that $m\bar{e}hur$ was derived from the PIE root * meh_1 - 'to measure'. ²³ As Eichner convincingly argues, this connection has to be rejected on formal grounds: a * h_1 never yields Hitt. h, and a preform * $m\acute{e}h_1$ -ur therefore just cannot have yielded Hitt. $m\bar{e}hur$. ²⁴ Moreover, there are, according to Eichner, also semantic difficulties with this connection: he states that $m\bar{e}hur$ denotes "passende, rechte Zeit", but not "meßbare Zeit". Eichner therefore proposes a different etymology. On the basis of the meaning "passende, rechte Zeit", he assumes a connection with the root * meh_2 - "gut, zu guter Zeit, rechtzeitig" a statested in Italo-Celtic words like Lat. $m\bar{a}ne$ 'timely', $m\bar{a}t\bar{u}rus$ 'ripe', and OIr. maith 'good, fitting'. The only way to formally account for a connection between $m\bar{e}hur$ and * meh_2 - is then, according to Eichner, to assume that the root of $m\bar{e}hur$ contained a lengthened grade, * $m\acute{e}h_2$ -ur, since "Erhaltung des Timbre von \bar{e} in Nachbarschaft von H_2 unbedenklich angenommen werden [kann]" (1973:92 n. 27). This rule has since become known as Eichner's Law.

There are some problems with Eichner's root etymology, however. The first problem is a semantic one. Eichner states that Hitt. $m\bar{e}hur$ only means "passende, rechte Zeit", and does not contain the semantic concept of a (measurable) time period at all, 26 but this is simply not true. The *Chicago Hittite Dictionary* (CHD) gives the following three core mean-

²¹ A trivial development, cf. ON funi, Goth. fun- 'fire' < *ph2-un-, which must have replaced original *ph2-uén-.

²² The subsequent gemination of the *-nn-* to *brunn\(\delta\)- need not concern us here. I would like to thank Guus Kroonen for discussing these Germanic forms with me.

²³ Cf. the Forschungsgeschichte as given by Eichner 1973.

²⁴ Yakubovich's recent attempt (2011) to revive the etymological connection with PIE *meh₁- and to see the -bin mēḥur as a hypercorrect epenthetic hiatus-breaker, used by Hittite native speakers who wanted to distance
themselves from Luwian native speakers that had a "bad Luvian accent" when speaking Hittite, is unfounded.

²⁵ This meaning is given in Pokorny 1959 s.v. *mā-2.

²⁶ In Eichner's words: "Heth. *mehur* weist gerade keine Noeme aus diesem Bedeutungsfeld [scil. of "Maßbegriffe"] auf, heißt nirgends 'meßbare Zeit' und dient auch nicht zur Bezeichnung irgendwelcher Zeitmaße" (1973: 53).

ings of Hitt. $m\bar{e}hur$: "a. (recurring) time of the year, season; b. fixed, regularly recurring time of the day or night; c. the proper time for an activity". So, although $m\bar{e}hur$ indeed sometimes denotes 'proper, fitting time', its basic meaning is just '(recurring) time period'. This latter meaning is unaccounted for in Eichner's article. The second problem is that, apart from the alleged Hittite derivative, the root * meh_2 - 'good, the right time' is only attested in the Italo-Celtic branch. I have no doubt that without the Anatolian connection, most scholars would agree that the limited occurrence of the root * meh_2 - indicates that it was a substratum root that entered the Italo-Celtic branch at a relatively recent stage only. The third problem is that, as I have argued in Kloekhorst (2008:98), all other Hittite examples that Eichner adduces for his non-colouration rule of * $(-)h_2\bar{e}(-)$ and * $(-)\bar{e}h_2(-)$ have to be interpreted differently. Put in another way: there is no good additional evidence in favor of Eichner's Law in Hittite.

These three considerations have led me to come up with an alternative etymology for $m\bar{e}hur$. Since in all other Hittite words with a good etymology containing the sequence $(-)\bar{e}h(-)$ or $(-)h\bar{e}(-)$, the \bar{e} can be derived from a PIE i-diphthong *ei or *oi, I propose to derive $m\bar{e}hur$ from a root * $meih_2$ -, which I equate with the root *meiH- "gering werden, schwinden" as cited in LIV². Semantically, we may think of a time period as something that is constantly running out. This means that the meaning '(recurring) time period' must have been primary, the semantic development of which to the meaning 'proper, fitting time' is a trivial one.

Apart from the arguments given above, there is another advantage of this root etymology over Eichner's one. In Eichner's account of $m\bar{e}hur$ it was necessary to assume that the oblique cases $*m\acute{e}h_2$ -un-(o)s and $*m\acute{e}h_2$ -un-i, which regularly should have yielded Hitt. **mahhunaš and **mahhuni, secondarily took over the root vocalism of the direct cases $*m\acute{e}h_2$ -ur $> m\bar{e}hur$. In my account, however, both lengthened grade $*m\acute{e}ih_2$ - and $*m\acute{e}ih_2$ -would yield Hitt. $m\bar{e}h$ -, which means that no inner-paradigmatic levellings need to be assumed. It should be noted, however, that this also means that $m\bar{e}hur$ cannot be used anymore as an argument for establishing the original ablaut patterns: since $m\bar{e}h$ - can reflect both $*m\acute{e}ih_2$ - and $*m\acute{e}ih_2$ -, it cannot be determined which grade originally belonged to which case. In fact, it cannot even be excluded that all cases had lengthened grade or that all cases had full grade.

We can conclude that the Hittite word for 'time', $m\bar{e}hur/m\bar{e}hur$, is certainly acrostatic in the sense that it must have been radically stressed throughout its paradigm, whereas its suffix was in zero-grade. The question whether the root of the separate case forms contained a full or a lengthened grade cannot be answered: both $*m\acute{e}ih_2$ - and $*m\acute{e}ih_2$ - would yield $m\bar{e}h$ -.

'urine'

The Hittite word for 'urine', $\delta \bar{e}hur / \delta \bar{e}hun$ -, inflects the same as $m\bar{e}hur$ 'time': nom.-acc.sg. $\delta \bar{e}hur$, gen.sg. $\delta \bar{e}huna\delta$, dat.-loc.sg. $\delta \bar{e}huni$, etc. Eichner (1973:69f.) therefore assumes that this word was acrostatic as well, and derives the noun from a root $*seh_2$ - "verunreinigen, beschmutzen" which in his view is also attested in Hitt. δah - "verunreinigen, besudeln; beschmieren" and CLuw. $\delta ahha$ - "Schmutz". The only way to account for the long \bar{e} in $\delta \bar{e}hur$ is then to assume that it reflects a lengthened grade form $*s\acute{e}h_2$ -ur.

²⁷ In view of Melchert's convincing derivation of Hitt. $l\bar{a}hu^{-i}$ 'to pour' < $*l\acute{o}h_3u$ -, which implies that the sequence $*Vh_3u$ yielded $*VH^v$ before the loss of $*h_3$ in intervocalic position (Melchert 2011), $m\bar{e}hur$ may also reflect a preform $*m\acute{e}ih_3ur$.

Although I agree with Eichner that \check{sehur} certainly must have been acrostatic in the sense that it was radically stressed throughout the paradigm, I do not follow his root etymology. As I argued in Kloekhorst (2008:742), a root $*seh_2$ - "verunreinigen, besudeln; beschmieren" does not exist: the Hittite verb \check{sah} - in fact means 'to clog, to stuff, to stop, to block' and reflects the root $*seh_2$ - 'to stuff up' (which is identical to the (late-)PIE root $*seh_2$ - 'to satiate'), whereas the CLuwian noun " \check{sahha} -" does not exist (cf. Starke 1990: 228f.).

Several alternative etymologies have been proposed for this word. I myself (Kloekhorst 2008:742) have suggested a connection with the PIE root * $seik^w$ - 'to pour, to urinate'. However, since a preform * $s\check{e}ik^w$ -ur / * $s\acute{e}ik^w$ -un- should, through PAnat. * $/s\check{e}g^w$ ur, $s\acute{e}g^w$ un-/, regularly yield Hitt. * $*s\check{e}kur$ / * $*s\check{e}kun$ -, the connection cannot be direct. I therefore suggested that Hitt. $s\check{e}hur$ was perhaps borrowed from another Anatolian language where PAnat. lenis $/g^w$ / yielded - $\hbar u$ - (like it did in Palaic). Hart (2004:345f.) rather connected $s\check{e}hur$ with Gk. oðpov 'urine' and reconstructed a preform * h_3eih_2 - u_f (assuming that * h_3 - yields Hitt. s- when a *u is present further on in the word). In both cases it is assumed that e reflects a PIE u-diphthong. If this is correct, also $s\check{e}hur$ becomes non-probative for determining whether the root of the separate case forms contained a full or a lengthened grade: both *ei and *ei would give the same result in Hittite.

'rock sanctuary'

According to Eichner (1973:81), also Hitt. NA4 pekur 'rock-sanctuary' is acrostatic. He assumes that it is parallel in structure to $m\bar{e}hur$ and $s\bar{e}hur$ and reconstructs $*h_2\dot{e}k-ur$, connecting it with the PIE root $*h_2ek$ - 'to be sharp'. This etymology was convincingly refuted by Puhvel (HED:3,289), however, who shows that NA4 pekur shows no inflected forms, but rather functions as a sumerogram²⁹ and therefore is likely to be of a foreign origin, possibly ultimately from Sum. É.KUR 'mountain house'. We can therefore leave this word out of the discussion.

'stone'

Although not mentioned by Eichner, the inflection of the Hittite word $p\bar{e}ru$ / $p\bar{e}run$ - 'stone' can clearly be identified with the inflection of $m\bar{e}hur$ and $s\bar{e}hur$ (we just need to assume that nom.-acc.sg. $p\bar{e}ru$ reflects pre-Hittite * $p\bar{e}rur$, probably due to dissimilatory loss of the *-r), and therefore must have been acrostatic as well: the zero-grade in the suffix in the oblique cases points to radical stress.

This word is generally connected with Skt. $p\acute{a}rvata$ - 'rocky; mountain', which means that we can reconstruct a root *per- (cf. Kloekhorst 2008:668f.). Yet, since in Hittite PIE * \acute{e} and * \acute{e} eventually merged in open syllables, ³⁰ we cannot decide whether the root of the separate case forms reflects full grade * $p\acute{e}r$ - or lengthened grade * $p\acute{e}r$ -.

²⁸ A development which I cannot accept. Cf., however, Olsen 2006:240 for the same rule, who reconstructs $\check{s}\check{e}hur$ as $*h_3\check{e}h_2$ -ur.

²⁹ Already noticed by Weitenberg 1984:154.

³⁰ At least in the post-OH period. In OH times, long /ḗ/ and short /é/ were in open syllables still phonemically distinct: the former was spelled plene in nearly 100% of its attestations, whereas the latter was spelled plene in ca. 50% of its attestations (cf. Kloekhorst 2012). Yet, since the word pĕru / pĕrun- is attested too seldomly in OS texts (namely only once), we cannot determine whether it was /pḗru(n-)/ (which would point to PIE *pḗr-) or /pḗru(n-)/ (which would point to PIE *pḗr-).

'house'

The Hittite word for 'house', per / parn-, is generally thought to have been desinentially stressed in its oblique cases, e.g. gen.sg. parnaš < *Pr-n-ós. Yet, this cannot be correct. As I will argue elsewhere, ³¹ the fact that the dat.-loc.sg. form parni is consistently spelled $p\acute{a}r-ni$, with non-plene spelling of the vowel of the ending, indicates that the ending cannot have been accented. This means that the accent must have been placed on the stem: /párni/. We therefore must assume that this noun showed radical stress throughout its paradigm, i.e. was acrostatic.

The reconstruction of this noun is difficult: I know of no good comparanda in the other IE languages. Nevertheless, it is clear that the root must have been of the shape *Per-. The oblique cases can now be reconstructed as * $P\acute{e}r$ -n-, with full grade in the root. The colouring of *e to Hitt. /a/ was regular in the forms of the structure * $P\acute{e}r$ -n-C, 32 like gen.sg. * $P\acute{e}r$ -n-s and abl. * $P\acute{e}r$ -n-ti, from where it spread to the other oblique cases like dat.-loc.sg. $parni < P\acute{e}r$ -n-i and all.sg. $parna < P\acute{e}r$ -n-o. For the first time we can with certainty determine the root vocalism of the oblique case forms of an acrostatic noun: they show full grade, * $P\acute{e}r$ -n-.

The nom.-acc.sg. form of this word is always spelled sumerographically, É-er, which probably represents /pḗr/. Since in Hittite, PIE long accented * \acute{e} and short accented * \acute{e} merged in monosyllabic words to / \acute{e} /,³³ it cannot be determined whether this form reflects * $P\acute{e}r$ -r or * $P\acute{e}r$ -r.

'day'

The word for 'day' as attested in Sanskrit, áhar, áhnas, must have been acrostatic as well. The most important reason for this assumption is that it shows a static accentuation in Sanskrit, being stressed on the root throughout the paradigm: áhar, áhnas, áhne, etc. Since there are other r/n-stems in Sanskrit that are not statically accented (e.g. yákrt, yaknás 'liver', ásrk, asnás 'blood'), it is likely that the static accent in áhar is original. As we see, the root of this word shows a short a throughout, which points to PIE full grade: *Hégh-r, *Hégh-n-s. Also its Avestan cognate, asn- 'day', shows only full grade in the root.

It should be stressed that this is the first acrostatically inflected word treated thus far for which the root vocalism of the direct cases can be established beyond any doubt: they show the full grade vowel *e.

'brother'

The Sanskrit word for 'brother' shows radical stress throughout its paradigm: $bhr\dot{a}t\bar{a}$, $bhr\dot{a}taram$, $bhr\dot{a}tu\dot{\mu}$. Since the other kinship terms in Sanskrit all show suffixal and desinential stress, this is quite remarkable. Moreover, since also Greek shows radical stress in this word, $φρ\dot{\alpha}τρρ$, $φρ\dot{\alpha}τερος$, ³⁴ there can be no doubt that this accentuation was original, and we may safely assume that the PIE word for 'brother' was acrostatically inflected. The absence of zero-grade in the suffix syllable in Sanskrit ($-t\bar{a}$, -taram, etc.) and Greek (-τηρ, -τερος, etc.) is undoubtedly caused by the influence of the hysterokinetically inflected kinship terms like 'father' and 'daughter'.

³¹ Kloekhorst fthc.a:§4.2.1.

³² According to the development *eRCC > Hitt. aRCC, cf. Kloekhorst 2008:95.

³³ Cf. Kloekhorst 2012.

³⁴ Its meaning has developed into 'member of a brotherhood'.

In all IE languages where this word is attested, the vowel of the root seems to reflect PIE short *e: * $b^h r \acute{e} h_2$ -. Nowhere a trace of a lengthened grade in the root can be found: in no language did Eichner's Law operate³⁵ (which predicts non-colouration of the * \bar{e} in * $b^h r \acute{e} h_2$ -tr); and in Balto-Slavic we consistently find an acute vowel (pointing to * $b^h r \acute{e} h_2$ -) instead of a circumflex vowel (which we would expect from * $b^h r \acute{e} h_2$ -).³⁶

'mother'

Within the IE language family, we find evidence for both suffixal and radical stress in the nom.sg. form of the word for 'mother': Skt. $m\bar{a}t\dot{\bar{a}}$ and PGm. $*m\bar{o}d\acute{e}r^{37}$ show accentuation on the suffix, whereas Gk. $\mu\dot{\eta}\tau\eta\rho$ shows accentuation on the root. Yet, only one of these can be the original accentuation, which means that the other must have been an analogical creation. Since the PIE kinship terms that are semantically closest to 'mother', namely 'father' and 'daughter', show in their nom.sg. forms accentuation of the suffix, $*ph_2t\dot{e}r$ and $*d^hugh_2t\dot{e}r$, it is not very likely that if 'mother' originally would have been accented on its suffix as well, it would have undergone a secondary accent shift. The other way around is easier to imagine: if the nom.sg. form of 'mother' originally would have had radical stress, we can easily see how under pressure of 'father' and 'daughter' it would in some languages have shifted its accent to the suffix.

In the acc.sg. form, we only find evidence for suffixal accentuation (Skt. $m\bar{a}t\acute{a}ram$, Gk. μητέρα) and in the gen.sg. we only find evidence for desinential accentuation (Skt. $m\bar{a}t\acute{u}\dot{h}$, Gk. μητρός). This means that in principle we should reconstruct for PIE the forms acc.sg. *meh₂térm and gen.sg. *meh₂trés. Yet, since the inflection of 'father' and 'daughter' apparently in some daughter languages influenced the inflection of 'mother' in its nom.sg. form, it is in principle possible that this has happened in the acc. and gen. forms as well. The probative value of these hysterokinetically inflected acc.sg. and gen.sg. forms is therefore relatively low.

In Sanskrit, the ending of the gen.sg. of the word for 'mother' is -uh ($m\bar{a}tuh$), an ending that is used in the other kinship terms as well (pituh 'father (gen.sg.)', duhituh 'daughter (gen.sg.)', $bhr\bar{a}tuh$ 'brother (gen.sg.)', etc.). This ending can only reflect *°C-r-s, showing zero-grade of the suffix as well as of the ending, and therefore could only have been at home in an acrostatic paradigm. A similar ending is found in Old Icelandic, where all kinship terms show the ending -or < *°C-r-s (e.g. fodor 'father (gen.sg.)', modor 'mother (gen.sg.)', brodor 'brother (gen.sg.)', dottor 'daughter (gen.sg.)'). Since both in Sanskrit and in Old Icelandic this ending is found in all kinship terms, also in the ones that we know for sure not to have been acrostatically inflected, like 'father' (Skt. pituh, OIc. $fodor < *ph_2-tr-és$) and 'daughter' (Skt. duhituh, OIc. $dottor < *d^hugh_2-tr-és$), it apparently must have spread from some other kinship term. As we have seen above, the word for 'brother' must have been acrostatic, which means that the endings -uh and -or must have been original in this word (Skt. bhrdotatuh, OIc. $brodor < *b^hreh_2-tr-s$). Yet, since it is unlikely that on

³⁵ Gk. φράτηρ, Lat. frāter, Goth. broþar, OIr. bráthair, Arm. ełbayr, OPr. brāti, Lith. brólis, OCS bratrъ, ToB procer, ToA prācar.

³⁶ Lith. brólis, Latv. brãlis, OCS bratrъ, bratъ, Ru. brat (gen.sg. bráta), SCr. brãt.

³⁷ OS *mōdar*, OHG *muoter*, ON *móðir*: the place of accentuation in Proto-Germanic can be determined due to the operation of Verner's Law.

³⁸ The radical accentuation of Lith. môtê is non-probative since this form could in principle derive from earlier suffixally stressed *motê through Hirt's Law.

³⁹ The radical stress in Lith. acc.sg. móteri and gen.sg. móteres must be due to Hirt's Law from earlier *motèri and *motrès.

the basis of the word for 'brother' alone the ending *-r-s would in these languages have spread so vastly, even to the word for 'father', we must assume that the ending was also present in another kinship term. As we have seen, the word for 'mother' must (at least) in its nom.sg. form have been radically stressed, which would fit the acrostatic accentuation pattern. I therefore think that 'mother' is the best candidate for originally having been acrostatically inflected and thereby being the source of this gen.sg. ending *-r-s.

In all IE languages where this word is attested, the vowel of the root seems to reflect PIE short *e: * $m\acute{e}h_2$ -tr-. Nowhere, a trace of a lengthened grade in the root can be found: in no language did Eichner's Law operate⁴⁰ (which predicts non-colouration of the * \bar{e} in * $m\acute{e}h_2$ -tr); and in Balto-Slavic we consistently find an acute vowel (pointing to * $m\acute{e}h_2$ -) instead of a circumflex vowel (which we would expect from * $m\acute{e}h_2$ -).⁴¹

'load, burden'

The Slavic noun *bèrme (AP a) 'load, burden' (OCS brěme, Ru. berémja, SCr. brème) must according to Villanueva Svensson (2011:29) be reconstructed as "an acrostatic menstem * b^h ér-men-", *\frac{4}{2}\$ and can be identified with Skt. bhárman. This latter word is a hapax legomenon in the Rig-Veda (8.2.8c), and forms the loc.sg. form to a further unknown word of unknown meaning. *\frac{4}{3}\$ It cannot therefore be equated with Slav. *bèrme just like that.

In his Etymological Dictionary of the Slavic Inherited Lexicon, Derksen (2008:37) argues that the acute intonation of Slav. *bèrmę points to the presence of a root-final laryngeal instead of lengthened grade, and he therefore reconstructs * b^herH -mn, which he compares with Skt. $bh\acute{a}r\bar{l}man$ - 'support'. This word therefore cannot be used as conclusive evidence for the reconstruction of a lengthened grade in the paradigm of the acrostatic inflection type.

Conclusions

On the basis of a treatment of all relevant material, we can conclude the following. The words for 'liver' and 'well' were not acrostatically accented at all. These therefore cannot be used anymore as an argument in the discussion on how to reconstruct the root vocalism of acrostatically inflected nouns. Most of the acrostatic nouns that are attested in Hittite, the

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tráya índrasya sómāḥ sutắsaḥ santu devásya | své kṣáye sutapāvnaḥ || 7 ||
tráyaḥ kóśāsa ścotanti tisráś camvàḥ súpūrṇāḥ | samáné 'dhi bhấrman || 8 ||
śúcir asi puruniṣṭhấḥ kṣīráir madhyatá ấśīrtaḥ | dadhnấ mándiṣṭhaḥ śūrasya || 9 ||
```

As we see, on the basis of the context the meaning of *bhārman* cannot be independently determined. Geldner (1951:2.282) translates the word as "Darbringung" ("bei ein und derselben Darbringung") but clearly does so on the basis of a presupposed etymological connection with the verbal root *bhar*- 'to bring, to carry' only. This translation therefore cannot be used for etymological purposes, since any reasoning based on it would immediately become circular.

⁴⁰ Lat. māter, Gk. μήτηρ (Dor. μάτηρ), Arm. mayr, Lith. mótė, OCS mati, OHG muoter, OIr. máithir, ToA mācar

⁴¹ Lith. mótė, Latv. mãte, OCS mati, Ru. mat' (gen.sg. máteri), SCr. mãti.

⁴² Villanueva Svensson cites this word under the heading "Narten nouns" (l.c.), with which he seems to imply that in his view ἐ/ἐ-ablauting acrostatic nouns are only formed from Narten roots.

⁴³ The word occurs in hymn 8.2, addressed to Indra:

^{&#}x27;(7) Three (types of) soma must be pressed for Indra the god, in the soma-presser's own house. (8) Three buckets run over, three bowls are well-filled in one and the same *bhārman*. (9) Clear are you, divided over many (cups); in the middle you are mixed with milk; with sour milk you are most intoxicating for the hero' (translation after Geldner 1951:2.282).

words for 'time', 'urine', and 'stone', are inconclusive as to whether they reflect lengthened or full grade in the root. Only the word for 'house', per/parn-, unambiguously shows that the oblique cases contained full grade in their root: * $p\acute{e}r$ -n-. The acrostatic nouns that are unattested in Hittite but can be found in for instance Sanskrit, namely the words for 'day', 'brother' and 'mother', are more telling, however. They all clearly show only full grade in the root, both in the direct and in the oblique cases. It goes for all these words that nowhere a trace of a lengthened grade form can be found. Especially the words for 'brother' and 'mother' are significant in this regard: they are both well attested in the IE languages and often show archaic inflections. If we would follow Eichner's line of thought and assume that these words must have had lengthened grade in the root of their direct cases (* $*b^h r\acute{e}h_2 tr$, * $*b^h r\acute{e}h_2 trm$ and * $*m\acute{e}h_2 tr$, * $*m\acute{e}h_2 trm$), we certainly would have expected to find traces thereof in the daughter languages. Since these are absent we can in my view conclude only one thing: acrostatically inflected nouns that thus far were seen as showing \acute{e}/\acute{e} -ablaut in their root, in fact did not have any lengthened grade forms in their paradigms; instead they showed full grade throughout:

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nom.sg. *CéC-C(-s)
acc.sg. *CéC-C(-m)
gen.sg. *CéC-C-s
loc.sg. *CéC-C(-i)
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The acrostatic type with *\dot{\epsilon}/\epsilon-ablaut

It was already de Saussure (1879:217) who pointed to the fact that a noun like 'foot' must in PIE have contained both e- and o-grade it its root, *ped- and *pod-, 44 and that it thereby differs from other nouns, which rather show a root-ablaut between e- and zero-grade. On the basis of the Sanskrit paradigm of 'foot' (nom.sg. pāt, acc.sg. pādam, gen.sg. padás), Kuryłowicz argued that in this word the o-grade originally belonged to the direct cases, and that the e-grade was typical of the oblique cases (1956:57; 1958:230). According to Kuryłowicz, a similar ablaut pattern may underly Hitt. kāšt- / kišt- 'hunger' (1956:57). In 1967, Schindler argued that a radical o/e-ablaut can be found in the word for 'night' as well, which he reconstructed as nom.sg. * $n\acute{o}k^w$ -t-s, acc.sg. * $n\acute{o}k^w$ -t-m, gen.sg. * $n\acute{e}k^w$ -t-s (1967: 303), and called "immobil-anfangsbetont". This was the first time that radical o/e-ablaut was connected with radical stress and the subsequent use of the zero-grade in the suffix and ending in all case forms. In 1975a, Schindler compared this type with the \dot{e}/\dot{e} -ablauting acrostatic inflection type as was postulated by Eichner, and introduced the concept of an ó/éablauting acrostatic inflection. According to Schindler, an important new example of this type is the Hittite word for 'water', uātar / uiten-, since this noun would synchronically still show the radical δ/\dot{e} -ablaut. Other examples that Schindler gave for this category are *óg-ni- / *ég-ni- 'fire' and *gón-u- / *gén-u- 'knee'.

In the following, I will treat in detail all words that have been claimed to have originally belonged to this inflection type, in order to see if the reconstruction of this type can be upheld as such.

⁴⁴ In the terminology of de Saussure still called " a_1 " and " a_2 ".

'foot'

Although in this article I want to limit myself to suffixed nouns, I will treat the root noun 'foot' here because it stood at the cradle of the postulation of the * δ/\dot{e} -ablauting acrostatic type.

The word for 'foot' is nowadays generally reconstructed as follows: nom.sg. * $p\acute{o}d$ -s, acc.sg. * $p\acute{o}d$ -m, gen.sg. * $p\acute{e}d$ -s, dat.sg. * $p\acute{e}d$ -i, etc. It is indeed true that in the separate Indo-European languages the word for 'foot' shows both o-grade and e-grade root vocalism: e.g. Gk. $\pi o\delta$ -, Arm. ot- and Hitt. $p\~{a}t$ - derive from *pod-, whereas Lat. ped- and Skt. pad-V° reflect *ped-. It is therefore clear that the PIE paradigm probably contained both e-grade and o-grade forms. Yet, we also find lengthened grade forms: Lat. nom.sg. $p\~{e}s$ seems to reflect * $p\~{e}d$ -, 45 whereas e.g. ON $f\acute{o}t$ - must go back to * $p\~{o}d$ -. The Skt. nom.sg. form $p\~{a}t$ can reflect both *e and *o.

As we have seen, Kuryłowicz stated that the original ablaut pattern of this word can still be seen in Sanskrit: according to him, the long \bar{a} of nom.sg. $p\acute{a}t$ and acc.sg. $p\acute{a}dam$ must reflect *o, whereas the short a of gen.sg. $pad\acute{a}s$, dat.sg. $pad\acute{e}$, etc. reflects *e, *\frac{46}{2}\$ and Kuryłowicz therefore assumed that *o originally must have belonged to the direct cases, and *e to the oblique cases. Although formally the long \bar{a} in acc.sg. $p\acute{a}dam$ in principle indeed could reflect a PIE *o that was lengthened through Brugmann's Law, this is not the case for the long \bar{a} of nom.sg. $p\acute{a}t$: this \bar{a} cannot go back to *o, but must instead reflect *\bar{e}\$ or *\bar{o}\$. As far as I am aware, this fact has not been accounted for. Moreover, since acc.sg. $p\acute{a}dam$ synchronically has the same grade as nom.sg. $p\acute{a}t < *p\acute{e}d$ -s or * $p\acute{o}d$ -s, it cannot be excluded that $p\acute{a}dam$ reflects the same vocalism as the nom.sg. form and must be traced back to * $p\acute{e}d$ -m or * $p\acute{o}d$ -m. I am therefore hesitant in using the Sanskrit material for determining a PIE distribution of ablaut grades in this word.

A more serious problem for the assumption that 'foot' showed an δ/\dot{e} -ablauting acrostatic inflection is formed by the fact that 'foot' does not seem to have been statically accented. In Sanskrit, the noun shows mobile accentuation: nom.sg. $p\dot{a}t$, acc.sg. $p\dot{a}dam$, gen.sg. $pad\dot{a}s$, dat.sg. $pad\dot{e}$, etc. Although in Sanskrit most root nouns show mobile accentuation, this certainly did not go for all of them. This means that if 'foot' originally was acrostatically inflected, we would expect to find at least traces of this accentuation in Sanskrit. Since this is not the case, we should be suspicious regarding reconstructing a static accentuation. This suspicion is corroborated by the Hittite evidence: in this language the word for 'foot' is accentually mobile as well. Although not many phonetic spellings of this word are attested, the ones that are found clearly point in this direction: the acc.pl. form $pa-a-tu-u[\tilde{s}]^{47}$ represents radically stressed /pādus/, whereas gen.pl. $pa-ta-a-an^{48}$ and dat.-loc.pl. $pa-ta-a-as^{49}$ represent desinentially stressed /padān/ and /padās/, respectively. This accentual mobility

⁴⁵ Although a preform *ped-s with lengthening through Lachmann's Law cannot be excluded, cf. de Vaan 2008: 462

⁴⁶ His literal statement is "sing. nom. pāt, acc. pādam, gén. padáḥ etc., avec apophonie régulière o : e (> ind. ā : ă)" (Kuryłowicz 1956:57).

⁴⁷ KBo 25.46, 3 (MS).

⁴⁸ KBo 17.74 i 9 (OH/MS). Cf. the attestation *pa-ta-a-n=a* (KBo 20.8 obv. 4 (fr.), 19 (OS)).

⁴⁹ KBo 17.15, 10 (OS).

⁵⁰ Moreover, the dat.-loc.sg. form GÎR-*i* must represent desinentially stressed /padī/, since a radically stressed form **/pādi/ would have been spelled **GÎR-*ti* or **GÎR-*di* (cf. Kloekhorst fthc.a:§4.2.1).

must be original: the tendency in Hittite is to regularize stress patterns, not to make them mobile.⁵¹

We must conclude that the word for 'foot' was not acrostatically inflected at all: instead it shows a mobile accentuation. The root syllable shows both e- and o-grade (and possibly \bar{e} - and/or \bar{o} -grade as well), although the original distribution between these grades cannot be reconstructed with certainty (but cf. below, where I will present a new interpretation of the prehistory of this word). Thus, 'foot' cannot be used as an argument in favor of reconstructing an δ/\dot{e} -ablauting acrostatic paradigm.

'hunger'

Also the word for 'hunger' is usually reconstructed as an δ/\dot{e} -ablauting acrostatic noun * $K\dot{o}s$ -t-/* $K\dot{e}s$ -t-, a reconstruction that ultimately goes back to Kurylowicz (1958:230).

This word is only attested in Hittite, where we find a stem $k\bar{a}st$ - throughout the paradigm (nom.sg. $k\bar{a}sta$, acc.sg. $k\bar{a}sta$, dat.-loc.sg. $k\bar{a}sti$, instr. $k\bar{a}sti$). A stem kist- is found in the derivatives kist- 'hungry' and kist- 'hunger'. According to Kurylowicz, the former stem reflects *Kos-t-, and the latter *Kes-t-, 52 which together are now generally thought to point to an original paradigm nom.sg. *Kos-t-s, acc.sg. *Kos-t-m, gen.sg. *Kos-t-s, etc. 53 In my view, this reconstruction cannot be correct.

First, this noun is within Hittite clearly cognate with the verb $ki\check{s}t^{-\tilde{a}ri}$ 'to perish', which belongs to the small group of impersonal medio-passive verbs that show a 3sg.pres. form in $-\bar{a}ri$ (like $tukk\bar{a}ri$ 'it is visible, it is important', $i\check{s}tuu\bar{a}ri$ 'it is announced', etc.). Since it seems out of the question to me that such a verb could have been derived denominally, $ki\check{s}t$ -must be interpreted as the verbal root, which includes the -t-. This means that the -t- in $k\bar{a}\check{s}t$ -cannot have been a nominal suffix, and subsequently that $k\bar{a}\check{s}t$ - cannot have been a t-stem of some sort, but instead was a root noun. Moreover, since all other impersonal medio-passives in $-\bar{a}ri$ are derived from the zero-grade root ($tukk\bar{a}ri < *tuk-\acute{o}ri$, $i\check{s}tuu\bar{a}ri < *stu-\acute{o}ri$), it is clear that $ki\check{s}t$ - in $ki\check{s}t\bar{a}ri$ must represent the zero-grade of the root as well. I have therefore argued that $ki\check{s}t$ - reflects PIE *KsT-, in which an epenthetic vowel i had regularly developed between the *K and the *s. This means that the stem $ki\check{s}t$ - in $ki\check{s}duu$ ant- and $ki\check{s}tant$ - can now be derived from a zero-grade formation as well: *KsT-uént- and *KsT-ént-.

All in all, we must conclude that the Hittite word for 'hunger' was not a suffixed noun, but a root noun, and that the alleged e-grade stem $ki\check{s}t$ - in fact reflects a zero-grade stem. The word for 'hunger' therefore cannot be used as an argument in favor of reconstructing an \acute{o}/\acute{e} -ablauting acrostatic inflection type.

'bed'

Besides the words for 'foot' and 'hunger', Kuryłowicz (1958:230) also mentions Hittite $\check{s}\check{a}\check{s}t$ - 'bed' as an example of a noun that originally may have shown o/e-ablaut in the root, and e.g. Rieken (1999:131) therefore reconstructs this word as an \acute{o}/\acute{e} -ablauting acrostatic noun * $s\acute{o}s$ -t-s, * $s\acute{o}s$ -t-m, * $s\acute{e}s$ -t-s. Yet, in Hittite, the word shows one stem only, $\check{s}\check{a}\check{s}t$ -. Al-

⁵¹ As we see happening in this word as well: the OH gen.pl. *patān* /padān/ is in younger texts replaced by *pa-a-ta-an* (KUB 34.120, 6 (OH/NS), KUB 44.36 ii 14 (OH/NS)), which represents regularized /pádan/.

⁵² Especially the comparison between *kišduuant*- 'hungry' and **ped-uent*- 'provided with feet' (as attested in Myc. *pe-de-we-sa* (f.) 'provided with feet') was used as an argument in favor of reconstructing the former word as **Kest-uent*- 'provided with hunger' (Kuryłowicz 1956:57; Schindler 1967:297).

⁵³ E.g. Rieken 1999:132f.

⁵⁴ Kloekhorst 2008:74, but see already Rieken 1999:133 for this suggestion.

though this indeed seems to go back to *sos-t-, a trace of an e-grade stem *ses-t- cannot be found in Hittite. Kuryłowicz's addition of this word to the list of possible o/e-ablauting nouns clearly had to do with the formal similarity between $k\bar{a}$ st- and sast-. Yet, this formal similarity is only superficial. As we have seen, $k\bar{a}$ st- must reflect a root noun *KosT-, whereas sast- must be interpreted as a t-stem of the verbal root *ses- as attested in Hitt. ses-, Skt. ses-, Av. ses-, Av. ses-, Av. ses-, Av. ses- is no reason to assume that these nouns originally must have shown the same inflection. Moreover, as we have seen above, the interpretation of ses- as reflecting se-ablaut turned out to be false. Therewith, the assumption that the word for 'bed' displayed such an inflection cannot be substantiated. I conclude that the word for 'bed' cannot be used as an argument in favor of reconstructing an se-ablauting acrostatic inflection type.

'water'55

Also the word for 'water' is nowadays generally reconstructed as an o/e-ablauting acrostatic noun: *uod-r, *ued-n-s. This reconstruction was first proposed by Schindler (1975a:4f.) on the basis of the Hittite word for 'water', uatar/ue/iten-. According to Schindler, the e/i in the root of the oblique stem ue/iten- (which is spelled u-i-te-n° as well as u-e-te-n°) must reflect a PIE *e, which stands in contrast with the a in the direct stem uatar, which must reflect *o. According to Schindler, "[c]e type apophonique est en outre charactérisé par une accentuation fixe sur la racine" (1975a:5), and he therefore reconstructs acrostatic *uod-r/ved-n-.

Yet, synchronically in Hittite, the word for 'water' does not show a static accentuation. Although the nom.-acc.sg. form μa -a-tar must certainly have been accented on the root, $/u\dot{a}d(\vartheta)r/$, this is not the case for the oblique stem: plene spelled forms like dat.-loc.sg. \dot{u} -i-te-e-ni⁵⁶ and instr. \dot{u} -i-te-e-ni-i⁵⁷ clearly indicate that synchronically the accent in these forms must have been placed on the suffix syllable: /uidéni/, /uidénit/.

Schindler is aware of this and therefore assumes that in Hittite an accent shift had taken place: original *uéd-n- was secondarily replaced by *ued-én-, yielding ú-i-te-e-n°. The reality of such an accent shift seems questionable to me, however. Other Hittite acrostatically inflected nouns are never secondarily transferred to an accentually mobile inflection (cf. the treatment of $m\bar{e}hur / m\bar{e}hur$, $s\bar{e}hur / s\bar{e}hur$, peru / perun- and per / parn-, above). On the contrary, the basic development in Hittite seems to have been that originally mobile nouns are regularized to static ones. So, if the proposed accent shift in 'water' had really taken place, it would have been a completely unique case. According to Schindler, the accent shift he proposes "est dû à l'influence du mot pour « feu », i.-e. *péh2ur, thème faible *ph2uén-". Although semantically 'fire' and 'water' are in a way antonyms, I know of no other IE language where the words for 'fire' and 'water' influenced each other. Moreover, the word for 'fire', pahhur / pahhuen-, does not seem to have had any influence on other

⁵⁵ An account of what follows has also been presented in Kloekhorst fthc.b (an article written in 2003 for the Festschrift Weitenberg, which unfortunately still has not appeared) and Kloekhorst 2008:987f.

⁵⁶ KUB 31.79 obv. 8 (MH/MS), KBo 5.2 i 20, ii 12, 13, 17 (MH/NS).

⁵⁷ KBo 39.160 r.col. 7 (MS), KBo 39.166 ii 1 (MS), KBo 40.89 obv. 6 (MS).

⁵⁸ Schindler 1975a:7.

⁵⁹ Compare for instance *i*- and *u*-stem adjectives like *ḥarki- / ḥargai*- 'white' /Hárgi-, Hárgai-/ << *h²érģ-i- / *h²rģ-éi- and tĕpu- / tĕpau- 'little' /tébu-, tébau-/ << *dʰébʰ-u- / *dʰbʰ-éu-, or diphthong stems like zaḥḫai- / zaḥḫi- 'battle' /tʿáHai-, tʿáHi-/ << *tiéh²-oi- / *tih²-i-V́.

⁶⁰ Schindler 1975a:7.

formally similar acrostatically inflected nouns, like $m\bar{e}hur/m\bar{e}hun$ - 'time' or $s\bar{e}hur/s\bar{e}hun$ - 'urine'. All of this makes it highly unlikely that this would nevertheless have been the case in 'water'.

Apart from the fact that Hittite clearly points to an original mobile accentuation, there are also problems with Schindler's reconstruction of the ablaut pattern of the root in this word. According to Schindler, "[p]our autant que nous sachions, il est impossible que l'alternance wa-: we- [as found in yātar / ye/iten-, A.K.] soit un développement interne en hittite". At the time that Schindler wrote his article, it was indeed generally thought that the -e/i- in ye/itěn- could only go back to a pretonic *e, which means that the stem ye/itěn-must reflect earlier *yed-én-. Within this framework it is understandable that Schindler found it difficult to see how the e-grade in this preform could have come about in a secondary manner, which would justify his conclusion that it must have been original. Yet, our knowledge of Hittite phonology has expanded greatly in the last few decades, and it is now known that the vowel e/i does not only reflect pretonic *e, but can instead also represent an epenthetic vowel, [i], that is known to have arisen in certain consonant clusters (e.g. tame/išš- 'to (op)press' < *dmh₂s-). If we then take into account the fact that in Hittite an innerparadigmatic alternation between yVC- and uC- is fully absent, it becomes an interesting possibility that ye/itěn- represents /uidén-/, going back to earlier *ydén-.

We must conclude that the Hittite word for 'water' was not acrostatic at all: it showed accentual mobility instead. Moreover, we can conclude that the oblique stem $\mu e/iten$ - does not necessarily have to go back to a form with e-grade in the root, but rather reflects a form that had zero-grade in the root. If we combine these insights, the Hittite word for 'water' can be reconstructed as a proterodynamically inflected noun * $\mu od-r$ / * $\mu od-en-$. And that such a reconstruction also explains, for instance, the full grade in the suffix in the Gothic gen.sg. form * $\mu od-en-$. I therefore think it is justified to reconstruct the oblique stem * $\mu od-en-$ for Proto-Indo-European. As a consequence, the word for 'water' cannot be used as an argument anymore in favor of reconstructing an $\theta ode-$ ablauting acrostatic inflection type.

⁶¹ Only one form could possibly show influence of paḥḥur / paḥḥuen-, namely dat.-loc.sg. me-e-ḥu-e-ni (HT 1 ii 5 (NS)), which shows full grade in the suffix syllable, comparable to dat.-loc.sg. paḥḥueni, whereas normally this form is mēḥuni, with zero-grade in the suffix. Yet, even if this form is indeed influenced by paḥḥueni, we see that the influence only affected the ablaut grade of the suffix, and not the accentuation of the form: the plene spelling of the root vowel in me-e-ḥu-e-ni clearly indicates that this form was /mēhueni/, with accentuation on the root. I therefore conclude that there are no other acrostatic nouns that have undergone an accent shift in analogy to the word for 'fire' (or any other accentually mobile noun, for that matter).

⁶² Cf. Kimball 1999:193–199, where many examples of anaptyctic vowels written as <e> or <i> are given, and Kloekhorst 2008:60f., where it is argued that the epenthetic vowel spelled *e/i* phonetically may have been [‡].

⁶³ In the same way, the nom.acc.pl. form $\mu id\bar{a}r$ can now be derived from *ud- $\dot{\delta}r$ and therefore be directly equated with Gk. ὕδωρ 'water'.

⁶⁴ Compare e.g. Skt. $d\hat{a}ru$, $dr\acute{o}h$ 'wood' < * $d\acute{o}r$ -u / dr- $\acute{e}u$ -, a proterodynamically inflected noun with o-grade in the nom.-acc.sg. as well.

'night'65

It was already in 1967 that Schindler reconstructed an δ/\dot{e} -ablauting acrostatic paradigm for the word for 'night' (nom.sg. * $n\delta k^w$ -t-s, acc.sg. * $n\delta k^w$ -t-m, gen.sg. * $n\dot{e}k^w$ -t-s), even though the term 'acrostatic' had at that point not yet been invented: he instead uses the term "immobil-anfangsbetont" (Schindler 1967:302).

It is indeed true that this word shows both o-grade and e-grade in the root in the separate IE languages: e.g. Lat. noct-, Gk. vύκτ-, Lith. naktis, OCS $no\check{s}t$ 6 and Germ. $na\chi t$ - reflect $*nog^w$ -t-, whereas Hitt. nekuz derives from $*neg^w$ -t- (Skt. nakt- can reflect both). Yet, in none of the languages a synchronic innerparadigmatic ablaut alternation is attested: each language shows evidence for one of the ablaut grades only. This means that the original distribution between o-grade and e-grade in the paradigm of this word cannot be independently determined. Schindler's reconstruction of 'night' as showing o-grade in the direct cases and e-grade in the oblique cases is clearly solely based on the ablaut distribution that was reconstructed by Kuryłowicz for 'foot', 'hunger' and 'bed'. A reconstruction that, as we have seen, cannot in fact be substantiated.

I think that also the reconstruction of this word as acrostatically accented may be questioned. Although it is true that in Sanskrit the word for 'night' shows a static accentuation (nom.sg. nák, acc.sg. náktam, gen.sg. náktas, etc.), this fact need not be significant: columnar accentuation has become productive in suffixed nouns in Sanskrit. A more important form in this connection is Hittite nekuz. This word, which almost only occurs in the collocation nekuz mēḥur / mēḥuni 'in the evening, at dawn' was interpreted as a gen.sg. form by Schindler (so nekuz mēḥur / mēḥuni literally meaning 'in the time of evening, in the time of dawn'), who therefore reconstructs the element -z as *-t-s, i.e with the zero-grade ending *-s. According to Schindler, this is significant: virtually all other gen.sg. forms in Hittite use the ending -aš < *-os, which clearly had become extremely productive in the prehistory of Hittite. If nekuz reflects *nég*-t-s, this can only mean that the zero-grade ending *-s must be archaic. In combination with the zero-grade in the suffix, *-t-, this form can, according to Schindler, only derive from an "immobil-anfangsbetonte" type.

At first sight the interpretation of *nekuz* as a gen.sg. form is certainly attractive. Yet, there are other possible interpretations as well. Although *nekuz* indeed primarily occurs in the collocation *nekuz mēḫur* / *mēḫuni*, this is not always the case: a few times it occurs on its own. Consider the following contexts: *nekuz=ma šehilija* A^{HI.A}-*ar danzi* 'In the evening they take pure waters' (KBo 22.108, 4–5); *maḥḫ[an=ma] nekuz kišari* 'When it becomes evening' (KUB 1.13 iv 26–27); *maḥḫan=ma nekuz* MUL [u]atkuzzi 'When in the evening a star appears' (KUB 9.22 iii 38). In order to uphold his analysis of *nekuz* as a gen.sg. form, Schindler must assume that these examples are either scribal errors or elliptic uses for *nekuz mēḥur* / *mēḥuni*. ⁶⁶ Yet, if we take these examples at face value, it seems as if *nekuz* has a locatival function in all of them. It is therefore interesting to see that such an interpretation is also possible for *nekuz* as used in the collocation *nekuz mēḥur* / *mēḥuni*. As CHD:L–N, 242), states, "[w]hen another noun preceding *meḥur* serves to define it, the defining noun may be in the genitive [...], or it may agree with the case of *m*. (apposition)". Since *nekuz*

⁶⁵ Although the word *neg*-t- originally must have meant 'twilight', as is clear from the Hittite material, I will for convenience's sake use the translation 'night' here.

⁶⁶ Schindler 1967:292. It must be admitted that it is indeed true that "[e]ach of the occurrences of *nekuz* without *meḥur* alternates with *nekuz meḥur* in parallel passages" (CHD:L–N,435).

 $m\bar{e}hur / m\bar{e}huni$ is always⁶⁷ used as a locatival construction (with mehur being an endingless loc.sg. form and $m\bar{e}huni$ a dat.-loc.sg. form), we could therefore in principle assume that nekuz stands in apposition to the (dat.-)loc.sg. forms $m\bar{e}hur / m\bar{e}huni$ and therefore is a (dat.-)loc.sg. form itself as well. Also formally, such an interpretation is possible. The element -z in nekuz can not only go back to earlier *-t-s, but could reflect *-t-i as well (cf. e.g. OH $\bar{e}sza$ 'he is' $<*h_1\acute{e}sti$, hanza 'in front' $<*h_2\acute{e}nti$). Therewith, nekuz could in principle be traced back to a (dat.-)loc.sg. form $*n\acute{e}g^w-t-i$. Since the (dat.-)loc.sg. ending *-i is common in Hittite, its presence in this form need not be very archaic: as long as a stem $*neg^w-t-i$ was available somewhere in the paradigm, a dat.-loc.sg. $*neg^w-t-i$ could have been created anytime in the prehistory of Hittite. It therefore cannot be used as proof that the oblique stem of this word must originally have been radically stressed.

We can conclude that although the word for 'night' must indeed have shown o/e-ablaut in its root, the original distribution between these ablaut grades cannot be independently determined. Moreover, it cannot be proven that this noun was radically stressed throughout the paradigm. It therefore cannot be used as an argument for the reconstruction of an o/e-ablauting acrostatic inflection.

Below, I will postulate an alternative type of inflection that in my view can explain all the attested forms.

'fire'

According to Schindler, also the word for 'fire' that is ancestral to e.g. Skt. agni- was originally acrostatic and \acute{o}/\acute{e} -ablauting. At first sight, it indeed seems to be the case that some IE languages reflect o-grade in the root of this noun, whereas others point to e-grade: OCS $ognb < *h_log^{(w)}ni$ - vs. Lat. $ignis < *h_leg^{(w)}ni$ - (Skt. agni- can reflect both). Yet, already in 1970, Hamp noted that the corresponding Lithuanian word, ugnis, cannot be accounted for by these reconstructions. According to him, this form rather points to a reconstruction $*\eta g^w ni$ - (cf. OLith. ungnis), a preform that can also account for Lat. ignis (OLat. ingnis), OCS ognb and Skt. agni-. According to Lubotsky (p.c.), this reconstruction may have to be adapted to $*h_lng^w$ -ni- if the word is related to the word for 'coal' as attested in Skt. $\acute{ang}\bar{a}ra$ -, Lith. anglis, OCS oglb 'coal' $< *h_long^w$ -l-. This would mean that the word for 'fire' did not show o/e-ablaut in the root at all.

Furthermore, there are indications that this word was not statically accented. In Sanskrit, agni- is oxytone and shows a proterodynamic inflection: nom.sg. agnis, acc.sg. agnim, gen. sg. agnis, etc. It is therefore likely that also in PIE this word was proterodynamically inflected, and that we must reconstruct the following paradigm: nom.sg. $*h_1\acute{e}ng^w$ -ni-s, acc. sg. $*h_1\acute{e}ng^w$ -ni-m, gen.sg. $*h_1ng^w$ - $n\acute{e}i$ -s, etc. In Sanskrit and Balto-Slavic the zero-grade in the root was generalized throughout the paradigm. Moreover, in Sanskrit the mobile accentuation was given up by transferring the suffixal stress of the oblique cases to the direct cases. Therewith, the word for 'fire' cannot be used anymore as an argument in favor of reconstructing an \acute{o}/\acute{e} -ablauting acrostatic inflection type.

⁶⁷ The only exception is the construction *nekuz mēḥur tiiazzi / tiiat* 'the evening comes / came' (KUB 56.49 i 6–7, KUB 41.17 i 19–20, KBo 26.70 i 10), where *mēḥur* seems to function as the subject of *tiie/a-* and therefore must be in the nominative case. Does this mean that in these examples *nekuz* is in fact a nom.sg. form?

⁶⁸ These reconstructions are taken from Weiss 2009:196, 317.

⁶⁹ The reconstruction *yg"ni- also explains the absence of a reflex of Winter's Law in Balto-Slavic, cf. Kortlandt 1979:60f.

'knee'

Although Schindler himself calls this example only 'probable' ("sans doute", Schindler 1975a:4f.), the word for 'knee' is nowadays often reconstructed as an ϕ/\dot{e} -ablauting acrostatic noun, *gónu- / *génu-. It is indeed true that in some IE languages we find o-grade in the root, whereas other reflect e-grade: Skt. janu-, Gk. γόνο, Arm. cung-, ToB keni < *gon-u- vs. Lat. genu, Hitt. genu- < *gen-u-. Yet, in Germanic, we find forms that reflect a zero-grade in the root: Goth. kniu, OHG knio < *gn-eu-. Note that in these latter forms the suffix shows full grade. In other languages, traces of zero-grade formations can be found as well: Av. abl.pl. žnubiias < *ģn-u-, Hitt. instr. ganut /gnut/ < *ģn-ėu-t. According to Schindler (1975a:7) these forms are the result of a secondary "passage à la flexion protérokinétique". This can hardly be correct, however. In Hittite, for instance, the noun genu-'knee' shows the stem genu- throughout the paradigm: nom.-acc.sg. genu, gen.sg. genuyaš, abl. genuuaz, nom.-acc.pl. genuua, dat.-loc.pl. genuuaš. In Old Hittite, 70 there is one aberrant form, however, namely instr. ga-nu-ut⁷¹ /gnút/, which reflects *gn-éu-t, with zerograde of the root and full grade in the suffix. In younger Hittite, this form is replaced by genu-ut⁷² /génut/. So here we are clearly dealing with the opposite development: an original proterodynamically inflected form, /gnút/ < *ģn-éu-t is secondarily replaced by a form /génut/, obviously in order to generalize the stem /génu-/ throughout the paradigm. On the basis of the Hittite facts, I would rather reconstruct an original proterodynamic paradigm for the word for 'knee': nom.-acc.sg. *gén-u, gen.sg. *gn-éu-s, etc.

It must be admitted, however, that this reconstruction cannot account for the o-grade forms as reflected in Skt. $j\acute{a}nu$ -, Gk. $\gamma\acute{o}vv$, etc. Yet, already in 1955 Szemerényi designed an attractive scenario that could explain these. He pointed to the fact that often nouns with e-grade in their root show o-grade when used in compounds: e.g. Gk. φρήν, φρένα 'soul' besides ἄφρων, ἄφρονα 'foolish' or πατήρ, πατέρα 'father' besides εὐπάτωρ, εὐπάτορα 'having a good father'. According to Szemerényi, it is well possible that from such compounds the o-grade was taken over in the simplex. A good example of such a secondary o-grade is, for instance, Gk. ὄροφος 'roof'. As van Beek (2011:53f.) argues, original *ἐρέφος (as the expected regular neuter s-stem to the verb ἐρέφω 'to cover' should have looked like) was changed to ὄροφος in analogy to compounds like ὑψόροφος 'having a high roof'. In the same way we may assume that in some languages the original e-grade stem * $g\acute{e}nu$ - was secondarily changed to * $g\acute{o}nu$ - in analogy to compounds like * $g\acute{e}nu$ - (Gk. $g\acute{e}nu$ -

I conclude that the word for 'knee' originally was not acrostatically inflected, but instead was proterodynamic: $*\acute{g}\acute{e}n$ -u, $*\acute{g}n$ - $\acute{e}u$ -. The o-grade stem $*\acute{g}\acute{o}n$ -u- as attested in some languages must be secondary after compound forms where the o-grade was regular. The word therefore cannot be used as an argument in favor of reconstructing an \acute{o}/\acute{e} -ablauting acrostatic inflection type.

⁷⁰ The only OS attestation of an instrumental form of 'knee' is unfortunately broken: [...]x-nu-t=a-at=kán (KBo 17.17 obv. 12 (OS)). Neu (StBoT 26:24) reads this form as "g]i-nu-ta-at-kán", but the traces of the first sign are so small that in my view a reading [g]a-nu-t=a-at=kán cannot be fully excluded.

⁷¹ Attested in KUB 12.63 obv. 26, a Middle Hittite copy of an Old Hittite composition. The form cannot reflect *ģónu-, since this should have yielded Hitt. **ga-a-nu-, with plene spelled a.

⁷² E.g. KUB 58.111 obv. 5 (OH/NS).

⁷³ In Greek, these words mean 'without angles', 'with regular angles' and 'with four angles, square', respectively. The meaning 'angle' obviously derived from an original meaning 'knee'. The sequence -ων- in these words is the Doric development of *-ony-, cf. Beekes 2010:294.

'flood'

The Hittite word for 'flood' is attested with the following forms: nom.sg. ka-ra-i-E/IZ, gi-RE/I-e-E/IZ-za, dat.-loc.sg. ka-ra-E/IT-ti, nom.pl. ka-RE/I-E/IT-te-eš, acc.pl. ka-RE/I-E/ID-du-uš. ⁷⁴ Since the signs RE/I, E/IT and E/IZ are ambiguous regarding their vocalism (they can be read with e- as well as with i-vocalism), it is not immediately evident how each form should be phonologically interpreted. Nevertheless, it is generally agreed upon that this word probably represents an original t-stem to the root *grei- as attested in Skt. jráyas- 'surface', Av. zraiiah- 'sea'. According to Rieken (1999:135), we can distinguish at least three stems, grait-, gret- and grit-, which she reconstructs as going back to an irregular paradigm "*grojt(-s), *grojt-m, *grit-és". In my etymological dictionary of Hittite, I argued that we may have to assume the existence of only two stems, grait- and gret-, which then could reflect an ó/é-ablauting acrostatic paradigm *grói-t-s, *grói-t-m, *gréi-t-s (Kloekhorst 2008:440f.). Although this is theoretically possible, I do not think that the argument can be reversed: it cannot be proven on the basis of the Hittite material that 'flood' must have been an ó/é-ablauting acrostatic stem; the forms are just too multi-interpretable. For instance, the nom.sg. form ka-ra-i-E/IZ can be read ka-ra-i-iz /kraits/ $< *\acute{g}r\acute{o}i$ -t-s as well as ka-ra-i-ez /kraiets/ < *groi-et-s; the nom.sg. form gi-RE/I-e-E/IZ-za can be read gi-re-e-ezza /grēts/ $< *\acute{g}r\acute{e}i$ -t-s as well as gi-ri-e-ez-za /griets/ $< *\acute{g}ri$ - $\acute{e}t$ -s, whereas the forms spelled ka-RE/I-E/IT- t° can be read ka-ri-it- t° /grit-/ $< *\acute{g}ri$ -t-, ka-re-et- t° /gret-/ $< *\acute{g}rei$ -t- as well as ka-ri-et-t° /griet-/ < * $\acute{g}ri$ -et-. The theoretically reconstructible stems therefore are *groi-t-, *grei-t-, *gri-et-, *gri-et-, and *groi-et-, which makes it impossible to determine which inflection type this word originally must have had. I conclude that the word for 'flood' cannot be used as an argument in favor of reconstructing an *ó/é-ablauting acrostatic inflection type.

Conclusions

After having treated all relevant material we can conclude that there is simply no indisputable evidence in favor of the existence of a PIE \acute{o}/\acute{e} -ablauting acrostatic paradigm. For some words it has been shown that their alleged o-grade stem did not exist or cannot have been original ('fire' and 'knee'), for others that their e-grade stem is a mirage ('hunger', 'bed' and 'water'). Although there are indeed two words that must in PIE have shown an ablaut in their root between e-grade and o-grade, namely 'foot' and 'night', for neither of these can it be independently proven that the distribution between these grades was that *o was used in the direct cases whereas *e was used in the oblique cases. The one form on the basis of which this distribution was postulated, the Sanskrit acc.sg. form pådam 'foot', is inconclusive in its interpretation: although commonly reconstructed as *pód-m (in which *o was lengthened to \bar{a} because of Brugmann's Law), it cannot be excluded that it must instead reflect a form with $*\dot{e}$ or $*\dot{o}$, just as its corresponding nom.sg. form $p\dot{a}t$, which crucially cannot go back to *pód-s but instead must reflect *péd-s or *pód-s. Moreover, it was shown that for 'foot' and 'night' (the two nouns that show both e-grade and o-grade in their root) it cannot be independently proven that they must have been acrostatically accented. In fact, 'foot' must originally have had a mobile inflection. I therefore want to propose that instead of an acrostatic o/e-ablauting inflection, PIE knew an accentually mobile o/e-ablauting (or rather e/o-ablauting) inflection.

⁷⁴ Cf. HED:4,85f. for attestations.

e/o-ablauting mobile paradigms

Above, we have seen that the word for 'liver' must be reconstructed as a proterodynamically inflected noun with e/o-ablaut in the root: nom.-acc.sg. * $i\acute{e}k^w$ -r, gen.sg. * iok^w - $\acute{e}n$ -s. Although this type of inflection is unique (but cf. 'foot' and 'night' that will be treated below), it can easily be explained as a type that within PIE has secondarily arisen out of the normal proterodynamic inflection type.

As I have stated in Kloekhorst (2013:118–120),⁷⁵ it is attractive to assume that at an early stage of PIE, the vowel *o was the unaccented variant of *e. Since these two vowels would at this stage be in complementary distribution (*e always being accented, whereas *o was always unaccented), they functioned in this period as allophones of each other. This means that whenever in this period an *e was secondarily copied from an accented morpheme into an unaccented morpheme, it automatically took over the shape of its unaccented allophone and turned into *o. Only later on, a phonemic split between *e and *o took place, after which it became possible that *o was also used in accented position, and *e was also used in unaccented position.

The assumption of an early stage in which *e and *o were allophones of each other, can explain a few phenomena that otherwise are hard to understand. For instance, as Schindler (1975b) argued, the original inflection of neuter s-stems probably must have been nom.-acc. sg. *CéC-s, gen.sg. *CC-és-s, which later on was changed to *CéC-os, *CéC-es-os (e.g. *mén-os, *mén-es-os 'mind, spirit'). Yet, Schindler (1975b:266) was unable to account for the emergence of an *o in the suffix syllable of the nom.-acc.sg. form *CéC-os: "[e]ine sichere Deutung der o-Qualität läßt sich freilich nicht geben". Yet, as Beekes (1985:158) argued, if we assume that the full grade of the suffix was transferred from the oblique cases to the direct cases at the stage that *e and *o were still allophones of each other, we can easily see how the accented *e of *CC-és-s turned into *o when taken over by *CéC-s: because it was transferred to an unaccented syllable it automatically was changed to its allophone *o, yielding *CéC-os. A similar scenario can account for the word for 'liver'. 16

If we assume that in early PIE, 'liver' was a normal proterodynamically inflected noun, it must have shown the following forms: nom.-acc.sg. * $i\acute{e}k^w$ -r, gen.sg. * ik^w - $\acute{e}n$ -s. We can easily see that for the speakers of PIE this paradigm must have been somewhat awkward: an alternation between *iVC- and *iC- was rare and in view of the phonetic realization of *i as [j] in the nom.-acc.sg. form, somewhat counterintuitive. It seems therefore likely that already at an early stage this paradigm was levelled out, and that the full grade in the root of the direct cases was analogically taken over in the oblique cases. Yet, if this happened already at the stage that *e and *o were allophones of each other, the *e of the direct cases would automatically turn into an *o when taken over in the unaccented root syllable of the oblique cases: * ik^w - $\acute{e}n$ -s >> * iek^w - $\acute{e}n$ -s > * iek^w

Since the word for 'liver' is the only noun showing root ablaut between *e and *o for which the distribution between these grades can be independently determined, it is in my view attractive to assume a similar ablaut distribution for the two other nouns that show a root ablaut between *e and *o, namely 'foot' and 'night', as well. Moreover, I would like to propose that the origin of the o-grade in these paradigms is similar to the origin of the o-grade in 'liver'.

⁷⁵ Based on Beekes 1985:157 and Kortlandt 2001.

⁷⁶ Cf. Beekes 1985:4-6 for a rudimentary version of this scenario.

⁷⁷ Or, perhaps better put, an original */ik*éns/ was replaced by */iək*éns/, a form that later on was subject to the inner-PIE sound laws */é/ > */é/ and */ə/ > */o/, yielding /iok*éns/.

For the word for 'foot', I assume that in the earliest stage of PIE it must have had a mobile accentuation and e/Ø-ablaut in the root: nom.sg. *péd-s, acc.sg. *péd-m, gen.sg. *pd-és. It is in this sense interesting to see that such a reconstruction would fit, for instance, forms like Skt. upabdá- 'noise of going', which is generally thought to reflect a zero-grade form *pd- (e.g. EWAia s.v. pad-). We can now interpret this form as an old univerbation of the collocation $*h_1upo\ pd\acute{e}s$ 'under the foot', in which $*pd-\acute{e}s$ is the original gen.sg. form. '8 Since already at an early stage the zero-grade stem *pd- was subject to assimilation to *bd-, we can easily understand that the speakers of PIE chose to transfer the full-grade root from the direct cases to the oblique cases. However, when this happened at the early stage of PIE when the vowels *e and *o were still allophones of each other, the outcome of the *e when transferred to an unaccented syllable would automatically have been *o, yielding the oblique cases *pod-és, *pod-éi, etc. When in later PIE the *e of nom. sg. *péds underwent monosyllabic lengthening, 79 the outcome was *peds. This late PIE paradigm, nom.sg. *péds, acc.sg. *pédm, gen.sg. *podés, dat.sg. *podéi, etc., can account for all attested languages. In one group of languages the e-grade was taken over into the oblique cases (Lat. $p\bar{e}s$, pedem, pedis; Skt. $p\bar{a}t$, $p\bar{a}dam$, pedis, padas, padas, padas); in the other group the o-grade was transferred to the direct cases (Gk. $\pi \delta \varsigma$, $\pi \delta \delta \alpha$, $\pi \delta \delta \varsigma$; Hitt. $p\bar{a}t$ -; Arm. ot-; Germ. * $f\bar{o}t$ -*2).

A similar scenario may explain the word for 'night'. Kroonen (2013: s.v. naht-) argued that the root of the word 'night', *neg"-t- is to be identified with the root of the words for 'dark' as found in ON $d\phi kkr$, OSax. dunkar, OHG tunkal and Hitt. $dankui < *d^h ng^w -$. This immediately convincing connection means that the root of the word for 'night' originally must have been $*d^h neg^w$. I now want to propose that the word for 'night' originally was an e/\emptyset -ablauting mobile t-stem * $d^h n \acute{e} g^w$ -t- vs. * $d^h n g^w$ -t- \acute{V} . If we assume that at an early stage in PIE the initial cluster $*d^h nV$ - was simplified to *nV- (cf. the absence of any root starting in *TnV- in LIV²), the resulting paradigm, * $n\acute{e}g^w$ -t- / * d^hng^w -t- \acute{V} , would have been too aberrant to be retained as such. It is therefore understandable that the speakers of PIE would have generalized the full grade root of the nom.sg. throughout the paradigm. If this generalization occurred at the stage that *e and *o were still allophones of each other, the *e would in an unaccented position automatically be realized as *o, yielding a stem * nog^w -t-V. This late PIE paradigm, nom.sg. *nég*-t-s, acc.sg. *nég*-t-m, gen.sg. *nog*-t-és, dat.sg. *nog*-t-éi, was regularized in all languages. In most of the languages the o-grade stem was generalized throughout the paradigm, whereas in Hittite the e-grade stem spread. The fact that in Hittite only the loc.sg. form * $n\acute{e}g^w$ -t-i > nekuz survived is just a matter of coincidence.

General conclusions

We can conclude that there is no conclusive evidence that demands the reconstruction of an δ/\dot{e} -ablauting acrostatic inflection type. Instead, all nouns that do show e-grade as well as o-grade in their root are better explained as originally having a mobile accentuation, with e-grade in the direct cases and o-grade in the oblique cases. The only acrostatic inflection type that indeed can be reconstructed for PIE is a type in which the root shows accented

⁷⁸ P.c. Alexander Lubotsky.

⁷⁹ Cf. Kortlandt 2001, Kloekhorst 2013:119.

⁸⁰ With vocalism taken over from the nom.sg. form $p\dot{a}t$.

⁸¹ This nom.sg. form, as attested in Doric, must be more archaic than the more common nom.sg. form πούς, the origin of which is unclear. Cf. also the nom.sg. forms of compounds in -ποδ- as attested in Homer: ἀελλόπος, ἀρτίπος, πώλυπος, τρίπος, etc.

⁸² With retention of the length of the root vowel of the nom.sg. form * $p\dot{e}ds$.

e-grade. There is no conclusive evidence that this type would have lengthened grade in the root of its direct case forms. Instead, the evidence speaks in favor of the presence of a short accented **e* throughout the paradigm:

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nom.sg. *C\acute{e}C-C acc.sg. *C\acute{e}C-C(-m) gen.sg. *C\acute{e}C-C-s dat.sg. *C\acute{e}C-C-i etc.
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