# Neuter Stems with Suffix *-(e)n- in Anatolian and PIE[*]

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Hittite attests a small group of deverbative action/result nouns with a suffix *-an*: *ḫenkan* 'doom, death' < *'fate, lot' < *ḫenk-* 'offer, bestow' (impossible Puhvel 1991, 300 to Latin *nex* etc.; improbable Rasmussen 1999, 2.406 < an acrostatic neuter *o*-stem *$h_2\acute{e}n\hat{k}om$*); *lagan-* 'inclination' < *lag-* 'to bend'; *maškan* 'gift; bribe' < *maške-** 'give gifts' (*maškiške-*); *takšan-* 'middle, half' < *'joint, place of joining' < *takš-* 'bring to, join'.[1] These nouns inflect with an invariant stem: *ḫe/inkan, ḫinganaš, ḫe/ingani, ḫinganaz*; gen. sg. *laganaš*; abl. *maškanna*[z] (sic!).

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[1] †*naḫḫān-* 'fear' does not exist; all instances are neut. nom.-acc. sg. of the participle of the verb *naḫḫ-*. Thus also Puhvel 2007, 5–6 contra earlier citations.

The example *maškan* from a lexicalized *\*-sk̂e/o-* stem is certainly a creation of Hittite, and there is no positive evidence to suggest that any of the other synchronically transparent deverbative examples are older. A likely older layer of derivatives is represented by examples with no associated verb: *kuššan* 'wage, salary' < *\*kuHs-* (~ OE *hȳr* 'hire'); *šaḫḫan* 'service obligation' < *\*seh₂-* 'bind' (Rieken 1999, 287); *šakan-* 'oil, fat' (~ Lat. *sagīna* 'fattening'). For the last example compare also CLuvian *dāīn* 'oil, fat'.[2] The first two nouns cited show an invariant stem: *kuššan, kuššani/ī* (OS), *kuššanaz* (OS) (*kušni* and *kušnaz* are only NS); *šaḫḫan, šaḫḫanaš, šaḫḫani* (1x NS *šaḫḫāni*), *šaḫḫanaz, šaḫḫanit*. Note, however, for *šakan-* gen. sg. *šaknāš* beside dat.-loc. sg. *šakni-* and archaic inst. *šakanda*.

A pre-Hittite *\*ge/iman-* 'winter' is also required by *ge/imaniye-* 'spend the winter' and "individuated" *ge/immant-* 'winter' (whose geminate *-mm-* can only

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[2] Hittite *inan* 'illness' is etymologically obscure, while *ku(wa)nnan-* 'copper; bead' is unlikely to be inherited. The synchronic *n*-stem *pluralia tantum* ᴳᴵˢ*ḫanzan-* '(loom) beam' (Tanaka 2008) or more likely '(loom) frame' and ᴳᴵˢ*karzan-* 'swift, niddy noddy' (meaning thus contra Melchert 1999) may be either old *n*-stems or reanalyzed *r/n*-stems. For the latter analysis of *karzan-* see Eichner 1973, 98[78] (< *\*kért-sōr, \*kr̥ts-n-*).

be derived from a virtual *$\hat{g}^h(e)imn$-).[3] Also belonging here is CLuvian/HLuvian /k$^w$alan-/* 'army', attested in HLuvian nom.-acc. sg. EXERCITUS-*la/i/u-za*, dat.-loc. sg. EXERCITUS-*la/i/u-ní* and in CLuvian *kuwalanalliya*- 'pertaining to an army'. The original sense is *'camp, fort' as seen in Lycian *$tel\tilde{e}$- in *$tel\tilde{e}zi(je)$- 'camp, fort' (or sim.). For the semantic change compare Hittite *tuzzi*- 'army' < 'camp' (NB denominative *tuzziya*- 'to encamp'). The Luvo-Lycian word is derived from < *'circle' < *$k^wel$- 'turn' (cf. OIr. *dún* 'ring fort' < *$dheuh_2$- 'finish', Watkins 1991, and CLuvian *kulāni(ya)*- 'bring to (a successful) end').[4]

How this small but without doubt mildly productive class in Anatolian is to be explained in historical terms is not obvious. The comparison by Kronasser

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[3] Hittite *ge/imaniye*- & *ge/immant*- are derivable from a locative *$\hat{g}héim-en$ attested in Vedic *héman* 'in winter' (see in detail Friedman 2003, 3). Greek χεῖμα may likewise be back-formed from the same source (Schindler apud Nussbaum 1986, 52[11] & 189). There is thus no compelling evidence for a denominal *men*-stem as posited by Tremblay (1996, 126 with note 87). However, for reasons given below a genuine *men*-stem cannot strictly be excluded. See the extensive discussion of this problem complex in Wodtko et al. 2008, 162 ff.

[4] Also descriptively in this class is Lycian *qehñ* '?' (an installation qualified as 'local' and that is 'made to stand', but a mechanical back projection *$h_2wés-\underset{\circ}{n}$ leads nowhere.

(1966, 269) with Skt. *dhū́rvaṇe* 'for harming'(?) (1x at *RV* 9,61,30), following Sturtevant, is a dead end. There simply is no *class* of simple neuter *n*-stems in Sanskrit or anywhere else. The only good candidate for a PIE deverbative neuter *en*-stem is *$h_3\acute{e}ng^w$-ṇ, *$h_3ṇg^w$-én-* 'salve, grease' > Lat. *unguen*, Umb. *umen* 'ointment', OIr. *imb*, Bret. *amann* 'butter' to the root *$h_3eng^w$-* 'anoint' of Skt. *añj-* (*anákti* < *$h_3ṇ$-né-$g^w$-ti*), Lat. *unguō*, and Umb. *umtu* 'shall anoint'. Compare also OHG *anc(h)o* 'butter' < holokinetic*$h_3\acute{e}ng^w$-ōn*. The reconstruction given of a proterokinetic paradigm follows Klingenschmitt 1982, 180–181, Nussbaum 1986, 51–52[10], and Schrijver 1991, 62. Stüber 1997 (followed by LIV[2], 267) argues rather for acrostatic *$h_{2/3}\acute{o}ng^w$-ṇ, *$h_{2/3}\acute{e}ng^w$-n-* (with a root *$h_2eng^w$-* after Janda 2000, 282 ff.).

Discussion of the problem of *en*-stems must also include the PIE word for 'name' and the family of words represented by Grk. στόμα (neuter) and Av. *stamanəm* (masc. acc. sg.) 'mouth' and Hitt. *ištama(n)/ištamin-* (animate) 'ear' and CLuv. *tŭm(m)an(t)-* (neuter) '*ear; hearing; renown' (on the formation of the last see Oettinger 2003, 147–150 with refs.).[5] I remain unpersuaded by the

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[5] The CLuvian word and its derivatives show a variety of spellings, but the oldest attestation *tūmantiyaš* 'obedience' (KUB 17.10 iv 33, MS) likely shows the true shape, with a long *ū* and single *-m-*. The spellings *tum-ma-°* and *t/du-um-ma-°* are

arguments of Stüber (1997) for an acrostatic *en*-stem *$*h_1nóm-n̥$, $*h_1ném-n-$* and

retain the analysis of 'name' as a proterokinetic *men*-stem: *$*h_1néh_3-mn̥$, $*h_1n̥h_3-$*

*mén-* (Schindler 1975, 263, Peters 1980, 244[198], et al.). Although Anatolian has

entirely eliminated the full grade of the weak stem shown by OCS *imę* and OIr.

*anm(a)e* (see further below), the zero-grade root of the proterokinetic weak stem

is reflected in HLuv. *á-ta/i$_{4/5}$-ma$^n$-za* and Lyc. *alãma* < *$*h_1n̥h_3-mn-$*.[6]

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not probative evidence for a geminate consonant, for the reasons given in Hoffner

/ Melchert 2008, 19.

[6] However, the phonetics of the scenario sketched in Melchert (1994, 82–83) must

be seriously revised. First, the Lycian word must be read as *alãma* with an *-l-*

(contra e.g. Melchert 2004, 1). Second, it is now clear that the HLuvian signs

conventionally transliterated *tà*, *ta/i$_4$* and *ta/i$_5$* represent a voiced coronal

continuant reflecting the partial merger of /r/, /l/ and intervocalic /d/: see Rieken

2008 and Yakubovich 2009, 13–14 (Yakubovich argues for a flap [ɾ], but a

retroflex [] or other sound is also possible). There is thus no basis for a

dissimilation of *$*n$* to *d* (Lydian *ẽtamv* of uncertain meaning does not belong

here). There was after loss of laryngeals rather a dissimilation of *$*nVmn-$* > *lamn-*

(with a sound identified in word-initial position with /l/ in both Hittite and

Luvian) and of *$*anmnV-$* > *$*al̥mnV-$* or similar in word-internal position. Hittite

leveled the strong stem in *lāman*, *lamn-* (reflected indirectly also in HLuv.

On the other hand, as argued by Oettinger (2003, 148–150 and forthcoming), the word for 'mouth; ear' reflects (virtual) preforms *(s)tómh₁-n̥, *(s)tomh₁-én- and *(s)tm̥h₁-ṓn(-t) with a suffix *-en-. These represent derivatives of the root *(s)temh₁- 'to cut', and both body part names are based on an original sense *'slit, aperture' (thus with Wennerberg 1972, 30–31 with note 46). One crucial piece of evidence for this analysis (and for the required assumption of an *s mobile* otherwise unattested in this root) has previously been overlooked. CLuv. $^{KÁ}ā\check{s}$-*tummant*- 'gateway' can only be analyzed as a determinative compound *'mouth aperture' (i.e. an aperture shaped like an open mouth), where -*tummant*- preserves the older sense.

There are in principle two possible accounts for the attested distribution of *en*-stems. First, there was a pre-PIE productive type of action/result noun with suffix *-en- beside those in *-men- that was already moribund in Anatolian and virtually eliminated thereafter. The very limited productivity in Anatolian would thus reflect a slightly more archaic state of affairs in the sense of an 'Indo-Hittite' feature. Second, the only productive type was that with the suffix *-men-. The suffix *-en- of limited existence was secondarily extracted from instances of *-men- due to the effects of minor PIE (and probably still post-PIE) synchronic

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/lamniya-/ 'call'), while the Luvo-Lycian noun /ala(:)man-/ represents either a "blend" of the strong and weak stems or shows anaptyxis.

phonological rules. I will argue here for the second analysis, following separate
suggestions of Jens Rasmussen and Alan Nussbaum.

Rasmussen (1999, 2.647) argues that OIrish *neim* 'poison' reflects *\*ném-mn̥,*
an action/result noun *'gift' from *\*nem-* 'allot', via *\*némn̥* with a PIE reduction
of geminate \*/-mm-/ to \*[-m-] (for the semantics compare German 'Gift').[7] While
the more productive pattern for neuter *men*-stems is proterokinetic, Grk. πῶμα
'lid, cover' < *\*peh$_2$-* 'protect' shows that there were some neuter *men*-stems with
acrostatic *ó/é* inflection. We may therefore likewise assume that an underlying
sequence \*/stómh$_1$-mn̥/ *'cut, slit' first lost the laryngeal by the 'Saussure-Hirt
effect' and \*[stómmn̥] was then regularly reduced to \*[stómn̥], the direct source
of Greek στόμα.[8,9] In similar fashion a hysterokinetic stem \*/stomh$_1$-mén-/ with

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[7] As Andrew Byrd (pers. comm.) reminds me, in optimality theoretic terms this
reduction is part of the general PIE constraint against geminates (at least
heteromorphemic geminates) at the surface phonetic level. One may compare the
better-known reduction of PIE \*/-ss-/ to \*[-s-].

[8] From the weak acrostatic stem was formed a secondary derivative \*/stemh$_1$-n-
eh$_2$/, the source of Germanic *\*stemnō* 'voice' (Gothic *stibna* etc.) with regular loss
of medial laryngeal in Germanic (on the latter see most recently Ringe 2006, 137–
138).

nom. sg. */stomh$_1$-mé:/ (with *o*-vocalism of the root after the acrostatic neuter, as per Oettinger, forthcoming) would have led regularly to *[stomén-], *[stomé:], the source of Hittite *ištamin-* with nom. sg. *ištamaš\** (see Oettinger 2003, 145 ff.).

Oettinger also derives Avestan *stamanəm* from the same preform, explaining the lack of length in the first vowel expected by Brugmann's Law by shortening in an antepenultimate syllable. It is by no means certain that the Avestan shortening rule would apply in this word (see de Vaan 2003, 131), so one should also consider an alternative account. Since the secondary meaning 'mouth' is attested in Avestan, Greek and indirectly in Germanic, it surely developed already in PIE alongside the basic sense 'slit, opening'.[10] On the other hand, the use as 'ear' is likely a peculiarly Anatolian innovation from 'slit, opening', which as per above also must have persisted, as shown by CLuvian $^{KÁ}\bar{a}$*š-tummant-* 'gateway'.

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[9] If one chooses to derive PIE 'name' from a root *$h_1$nem-* as per Stüber 1997, obviously it could likewise still reflect an underlying *men*-stem, with the same reduction of the geminate */-mm-/.

[10] Assuming such coexisting meanings is not problematic, since the use for 'mouth' was probably colloquial and possibly derogatory. The use of 'trap' in English for 'mouth' has existed since at least the late 18th century with no effect on the core meaning.

Therefore despite appearances the Avestan and Hittite animate stems may well represent independent formations instead of a common preform. As suggested to me by Alan Nussbaum, Avestan *stamanəm* could thus reflect a virtual *\*stm̥h₁-én-*, a 'regular' hysterokinetic strong stem with zero-grade root, analogical to a weak stem *\*stm̥h₁-n-́* reduced from *\*stm̥h₁-mn-́* by the process described below.[11]

The type of Hittite *lagan-* and Latin *unguen* clearly cannot be explained by a rule simplifying geminate \*/-mm-/. For these I adopt a suggestion of Alan Nussbaum, who has reminded me of the minor PIE rule by which *\*-m-* is deleted when it appears between an obstruent and non-syllabic *\*n*. Two well-known examples cited are Sanskrit gen. sg. *áśnas* < *\*h₂(e)k̂-mn-és* vs. nom. sg. *áśmā* < *\*h₂ék̂-mō* and Sanskrit *budhná-* 'bottom, base, foot' < *\*bʰudʰ-mn-ó-* (see Mayrhofer 1988, 159 and 1993, 228–229 with refs.).[12] It is striking that all of the

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[11] Whether Hittite *ištamin-* could likewise be derived from a zero-grade *\*stm̥h₁-én-* is unclear to me. I insist only that all the attested forms for 'mouth' and 'ear' can be derived ultimately from a *\*men*-stem.

[12] We owe the discovery of this rule to Johannes Schmidt (1895, 87 ff.). As Andrew Byrd points out to me, the commonly assumed iterative right-to-left rule for syllabification of sonorants in PIE makes wrong predictions in some cases (see the discussion by Kobayashi 2004, 22–24). CLuvian *m(a)nāti* (/mna:di/) 'sees'

Anatolian neuter examples for an apparent suffix *-en- involve roots ending in an obstruent (including laryngeal), none in a sonorant.

We may thus assume for 'ointment, salve' an original PIE acrostatic paradigm (following Stüber 1997): $*h_{2/3}óng^w$-mn̥, $*h_{2/3}éng^w$-mn-. The latter before endings with initial vowel would have led regularly to $*h_{2/3}éng^w$-n-, after which the nom.-acc. was leveled to $*h_{2/3}óng^w$-n̥, whence Latin *unguen* and cognates. I have presented this scenario in PIE terms, because there are reflexes of this word in a number of languages. However, the rule deleting *m in such complex consonant sequences may well have persisted for some time, so I would not insist that this or any other particular example is of PIE date.[13]

If we apply this rule to what appear to be the older of the Anatolian examples, we may assume for 'fat, oil' likewise an acrostatic paradigm *sóHg-mn̥, *séHg-mn- 'fattening; fat', again with regular development of the weak stem

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and Greek μνῆμα 'memorial' show that [mn-] was a permissible onset in PIE and thus a sequence such as $*/b^hud^hmnó-/$ would have resulted in $*[b^hud^h.mnó-]$ with non-syllabic *m. However, the cluster [mn] would have been perceptually difficult medially after another consonant, leading to the widespread deletion of one of the two nasals as described by Schmidt.

[13] As Norbert Oettinger has reminded me, this case with evidence from Germanic, Celtic and Italic could well represent a 'Northwest Indo-European' innovation.

before vocalic endings to *séHg-n-* and leveling of the nom.-acc. to *sóHg-n̥* (cf. without laryngeal Kloekhorst 2008, 698).[14] We must also allow for the possibility that this noun was created only within the prehistory of Anatolian, with the Anatolian version of a proterokinetic *men*-stem paradigm in which the full grade suffix in the weak stem had already been replaced by zero-grade (Starke 1990, 243–244, after Schindler 1975, 263). That is, we may start from a virtual *séHg-*

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[14] I assume the presence of a laryngeal for two reasons. First, I consider cognate Latin *sagīna* 'fattening' (cf. for the type *rapīna* 'plundering' but also secondarily 'plunder'). Second, because the contrast between CLuvian *ši(ḫ)wa-* 'sour, bitter' with initial *s-* < *séh₂wo-* and CLuvian *dūr/dun-* with initial *d-* < weak stem *sh₂un-* compels me to conclude that the peculiar development of initial *s > t/d-* in Luvian somehow reflects in all instances a word-initial sequence *sH-*. For proof that Hittite *šēḫur* and CLuvian *dūr/dun-* 'urine' must continue a PIE *s-* see Le Feuvre 2007. Likewise then, as has often been suggested, Hittite *šāku(wa)-* ~ Luvian *tawa/i-* ~ *Lycian tewe-* 'eye' is to be derived from *sh₃ók$^w$-* (after Rieken 1999, 59–60 contra Melchert 1994, 61 et alibi). Space does not allow a full discussion of this complex problem here. I stress only that the rule deleting *-m-* requires only one preceding obstruent (*/-TmnV-/), so the presence or absence of a laryngeal in the root of 'fat' is irrelevant to the proposed derivation here from an original *men*-stem.

*mn̥, *s$_e$Hg-mn-és* (cf. Rieken 1999, 294).[15] The overall shape of CLuvian *dāīn* 'fat, oil' (possibly to be read as disyllabic /da:yin-/) requires derivation from a hysterokinetic paradigm, as per Oettinger (forthcoming), but the initial stop requires a preform *\*sH$_e$g-(m)ḗn, \*sH$_e$g-(m)n-* or the like, not *\*so(H)g-ēn*.[16] This word may be a collective, as suggested by Oettinger, but one cannot exclude a mere formal renewal with no change in meaning, as in the case of *\*/stomh$_1$-mén-/* beside *\*/stómh$_1$-mn̥/* 'slit, opening' discussed above.

Rieken (1999, 283–287) has presented indirect evidence for original proterokinetic inflection in Hittite *šaḫḫan-* 'service obligation', namely

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[15] The long vowel in Hittite gen. sg. *šaknāš* (OS) might seem to argue for this alternative, but dat.-loc. *lamnī* 'moment, time', securely from an original acrostatic paradigm *\*nóm-r̥, \*ném-n-*, shows that this type could also secondarily acquire ending accent in the weak cases (cf. Kloekhorst 2008, 519).

[16] I personally find it likely that by the time of its creation this noun was derived from a base already without an *\*-m-*. For the productivity of this kind of hysterokinetic collective in Anatolian compare the *\*h$_3$(e)pḗr* 'sales, commerce' reflected by Hittite *ḫappiriya-* '\*market; city' and less certainly *ḫašduēr* 'twigs; splinter' (on which see now Rieken 1999, 346–347).

*išḫanittar-*, 'relative by marriage',[17] built on the original weak stem of the paradigm of *šaḫḫan-* *'binding, union'. If the latter word is an inner-Anatolian creation, as seems likely, we may posit a virtual *$*séh_2$-mṇ, *$*sh_2$-mn-és*. The latter was reduced regularly to *$*sh_2$n-V-* (whence the *išḫan-* in *išḫanittar-*). The nom.-acc. was leveled to *$*séh_2$-ṇ*, and this was then generalized in *šaḫḫan-* (as in 'name' above). Compare the similar analysis (without *-m-*) by Kloekhorst (2008, 692).

Note that the evidence presented by Rieken for root ablaut in this example supports the idea that it is relatively old among the Hittite nouns in -*an,* while CLuvian *šaḫḫan-za* 'obligation' and its derived verb *šaḫḫanišša-* 'impose a service obligation on' also suggest that this noun is older than pre-Hittite. I therefore find it plausible that *šaḫḫan-* could have served as the model for the few other deverbative nouns in Hittite and Luvo-Lycian. Since all nouns that descriptively appear to reflect a suffix *-en-* can apparently be accounted for as originating in *-men-*, I conclude that there probably was no independent PIE primary suffix *-en-* that formed action/result nouns.

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[17] However, *išḫanattalla-* means 'murderer' and is derived from the word for 'blood': see Groddek 2007, who also shows that a noun †*išḫalli-* does not exist.

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