# Accent 'Retraction' in Hittite: Toward a Unified Phonological Account

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## §1 Introduction

**§1.1 The problem(s):** A number of (Old) Hittite forms exhibit surface accents that appear, descriptively, to be 'retracted' from their expected Proto-Indo-European (PIE) positions, falling instead on the initial (or leftmost) syllable, e.g. (1):

(1) **'Retraction' of inherited accent**:

a. *ḫūnikzi* [χóːnikt͡si] 'batters' < PIE **h₂u-né-g-ti*
(cf. *LIV*² s.v. **h₂ueg-*; Kloekhorst 2008:363)

b. *nīninkzi* [níːniŋkt͡si] 'mobilizes' < PIE **ni-né-k-ti* (cf. Lith. *įnìkti*, Gk. νεῖκος)
(cf. *LIV*², s.v. **neik-*; Kloekhorst 2008:606–7)

c. *terippzi* [té(ː)ript͡si] 'plows' < PIE **trép-ti* (cf. Gk. τρέπω, Lat. *trepō*)
(cf. *LIV*² s.v. **trep-*; Oettinger 1979:229–30, Melchert 2014:139–40)

d. *pūnušzi* [púːnust͡si] 'interrogates' < PIE **pn(é)uH-s-ti* (cf. Gk. πέπνῡσαι)
(cf. *LIV*² s.v. **pneuH-*; Oettinger 1976:95; Eichner 1978:160, Kimball 1999:199)

e. *teri–* [té(ː)ri–] '3' < PIE **trí-* (cf. Skt. *tráyaḥ*; Att. Gk. τρεῖς, etc.)
(cf. Oettinger 1979:230; Melchert 1994:84; Kimball 1999:195–6)

- To (1) should likely be added *ḫulle/a–* 'fight' (< PIE **h₂/₃ul-ne-h₁-*) which shows no evidence for plene writing of the peninitial syllable in 8 OS spellings; rather, NS spellings with initial plene (e.g. KBo 6.26 ii 11 <*ḫu-u-ul-la-az-zi*>) support leftmost surface accent. Due to the ambiguity of LE/I, OS spellings interpreted *ḫulle–* by (e.g) Hoffner and Melchert (2008:200-1) may all be read *ḫulli–* (cf. Kloekhorst 2008:359); similarly, KUB 36.98a obv. 5 (OH/NS) is best read <*ḫu-ul-li-e-ez-zi*>, hence built to the secondary **–yé/ó–* denominative stem found only in NS texts.
- Additional potential examples of 'retraction' include the causatives *lukke–* 'ignite' (< **lowk-éye–*; cf. Lat. *lūēre* with Watkins (1971:68–9)) and *waššе–* 'clothe' (<**wos-éye–* with Eichner (1969); cf. Melchert (1984:31–5)), where the complete absence of plene spelling of the suffix is very unexpected if indeed synchronically accented, and suggests the possibility of leftmost surface accent.

**§1.2 Nasal-infix presents in PIE vs. Hittite:** Morphological behavior in PIE exemplified by Vedic (2), where accented full-grade of nasal-infix in strong stem is clearly evident; in contrast, Hittite (3) requires leftmost surface accent.

(2) **Nasal-infix presents in Vedic & PIE:**

a. Ved. *yunákti* 'yokes' (VII) < PIE *yu-né-g-ti*
b. Ved. *punā́ti* 'cleanses' (IX) < PIE **pu-né-h₂-ti*

(3) **Nasal-infix presents in (Pre-)Hittite:**

a. Hitt. *ḫūnikzi* < Pre-Hitt. **h₂ú-ne-g-ti*
b. Hitt. *nīninkzi* < Pre-Hitt. **ní-ne-k-ti*

**§1.3 Hittite accented anaptyctic vowels:** In Hittite (1c–1e), the inherited word-initial consonant cluster shows insertion of an anaptyctic vowel that subsequently surfaces with the accent; leftmost surface accent for *pūnušš–* indicated by plene writing, and for *teripp–* and *teri–* by consistent spelling with word-initial *TE-*.

- Per Melchert (2014:139) (contra Kloekhorst 2012:157–9), exceptionless spelling *TE-* in both *teripp–* and *teri–* necessarily indicates [#te(ː)–]. Because pretonic **e* is raised to [i] (Melchert 1994:139), the interpretation of Kloekhorst (forthcoming) [terép–] is also impossible; again with Melchert (2013, 2014), understand rather [té(ː)rip–]. Similarly untenable are Kloekhorst's (forthcoming) new arguments for PA **téri–* from an inherited "ablaut variant" **ter-i–* (Eichner 1992:69); Lycian *trisñni* and Milyan (!) *trisu* are non-probative, since they may well result from language-internal syncope (which awaits a full treatment; cf. Melchert 1994:318–21). For cogent objections to Eichner's proposal, see the earlier discussion of Kloekhorst (2008: s.v. *teri–*).

**§1.4 Accent 'retraction' in PA?** Leftmost surface accent of Hitt. *teri–* all but confirmed by equation with CLuw. *tarriyanalli-* 'third in command', where geminate *-rr-* via Čop's Law assures position of accent and, moreover, strongly suggests accent 'retraction' at the PA stage, i.e. PA **téri–* (and by implication, **térep–*); similarly, Pal. *sūnat* 'filled' (< PIE **su-né-h₃-t*) points to accent 'retraction' for nasal-infix presents already in PA.

- On morphological grounds, the Palaic *mi*-verb *sūnat* can only be an archaism beside the innovated Hittite *ḫi*-verb, which is likely formed by intraparadigmatic analogy to the (ambiguous) 3rd pl. *šunnanzi* (:: 3rd s. *sunnāi*), where assimilation is regular (< **su-n-h₃-énti*; cf. Melchert 1994:79–80).

**§1.5 Previous scholarship:** No generally accepted explanation for accent 'retraction' in nasal-infix presents (1a–1b) (cf. Melchert 1994:89); however, (1c–1e) fall under the scope of the rule formulated, most explicitly, by Melchert (2013:178–9), according to whom "a prehistoric anaptyctic vowel to the left of the original accent regularly drew the accent and was thereby lengthened in an open syllable, while a post-tonic anaptyctic vowel remained unaccented" (cf. Melchert 1994:174–5).

**§1.6 A new proposal:** Hittite forms in (1) belong to a coherent group in which accent 'retraction' owes to the same phonological principle, namely, assignment of a 'default' phonological accent to the leftmost syllable of a prosodic word; in what follows, I aim to:

i. Show that the (1c–1e) are plausibly accounted for by PA DEFAULT ACCENTUATION, a phonological mechanism analogous to the BASIC ACCENTUATION PRINCIPLE (BAP), posited for Vedic by Kiparsky (e.g. 1973, 2010) (§2)

ii. Motivate the application of PA DEFAULT ACCENTUATION to nasal-infix presents, e.g. (1a–1b), in PA (§3).

iii. Consider some implications of this analysis, including the possibility of PA DEFAULT ACCENTUATION as diachronic inheritance (§4).

- For discussion of various issues with the anaptyxis rule of Melchert (2013), see the Appendix (§5).

## §2 Anaptyxis & 'default' accent in PA/PIE

**§2.1 'Default' phonological accent:** Many languages in which surface word accent is morphologically determined also have a principle of 'default' phonological accent assignment operative when no constituent morphemes are lexically-specified for accent, e.g. (4) Cupeño (cf. Hill and Hill 1968; Alderete 2001b):

(4) **Leftmost 'default' accent in Cupeño:**

| | | | |
|---|---|---|---|
| a. | /yax - əm/ → | *yáx-əm* 'Say!' | ('say' + IMPVPL) |
| b. | /max - əm/ → | *máx-əm* 'Give! | ('give' + IMPVPL) |
| c. | /wən - əm/ → | *wə́n-əm* 'Put (it) in' | ('put in' + IMPVPL) |
| d. | /ma - max - wen - t/ → | *mámxenet* 'given away' | (RED + 'give' + PIPl + NPN) |

(cf. Alderete 2001b:472; Hill 2005:29)

**§2.2 'Default' accent in Vedic and the BAP:** Mixed prosodic system of this type proposed for Vedic by Kiparsky (1973, 2010), who argues that surface accent—or ICTUS—in Vedic is governed by the BASIC ACCENTUATION PRINCIPLE (BAP) in (5):

(5) BASIC ACCENTUATION PRINCIPLE (BAP):
If a word has more than one inherently accented syllable, the leftmost of these gets the ICTUS. If a word has no inherently accented syllable, the leftmost syllable gets the ICTUS.

(based on Kiparsky and Halle (1977:209) and Kiparsky (2010:6))

- For other synchronic analyses of mixed prosodic systems, see Halle (1973), Halle and Kiparsky (1979), and Melvold (1990) on Russian; Blevins (1993) on Lithuanian; Revithiadou (1999) on Modern Greek; McCawley (1965) and Poser (1984) on Japanese; and generally Alderete (1999, 2001a).

**§2.3 BAP and 'mobile' root nouns:** This system effectively accounts (*inter alia*) for the distinction in Vedic between (inherently accented) root nouns exhibiting fixed root ICTUS and (inherently unaccented) 'mobile' root nouns, e.g. (6):

(6) **Fixed root (= Accented) vs. 'Mobile' (= Unaccented)**

| | | | |
|---|---|---|---|
| **Strong:** | Ved. /gáv – s/ → *gáuḥ* 'cow' | vs. | Ved. /nāv – s/ → *náuḥ* 'boat' |
| **Weak:** | Ved. /gáv – ás/ → *gávaḥ* [gen.s.] | vs. | Ved. /nāv – ás/ → *nāváḥ* [gen.s.] |

**§2.4 An Anatolian analogue of the BAP?** Pattern of 'retraction' to leftmost syllable evident in (1) suggests the possibility of a PA principle of default leftmost ICTUS assignment analogous to the BAP which may be tentatively formulated as in (7):

(7) PROTO-ANATOLIAN DEFAULT ACCENTUATION:
If a word has no inherently accented syllable, the leftmost syllable gets the ICTUS.

**§2.5 The accentuation of PA '3':** Assuming an inherited unaccented root */tr(e)y–/, the (post-epenthesis) PA surface form can be similarly derived as in (8) by the BAP-like principle in (7):

(8) PA */t(e)ri – / → **téri–* '3' > Hitt. *teri–*, CLuw. *tarriyanalli–*

- Whether the anaptyctic vowel is still synchronically epenthetic or has been phonologized in late PA, the derivation is theoretically unproblematic: the interaction between ICTUS assignment and anaptyxis is transparent in OT, or in a rule-based framework can be accounted for by ordering anaptyxis before ICTUS assignment.

**§2.5.1 '3' in Vedic and PIE:** Unaccented PIE */tr(e)y–/ supported by Ved. accentual data, where 'mobile' paradigm indicates an unaccented root in Vedic with schematic derivation in (9):

(9) **Vedic '3':**

| | |
|---|---|
| **Strong:** | Ved. /tray – as/ → *tráyaḥ* [nom. pl.] |
| **Weak:** | Ved. /tray – bhís/ → *tribhíḥ* [instr. pl.] |

**§2.6 Accentuation of simplex athematic *mi*-verbs in PA:** Default accentuation may be operative in the strong stem of simplex athematic *mi*-verbs in PA, which consistently bear root (= leftmost) ICTUS, e.g. (10):

(10) **Simplex athematic *mi*-verbs in PA:**

**Strong:** PA */g$^{w}$en-ti/ → *$g^{w}$énti* 'kills' > Hitt. *kuēnzi*
**Weak:** PA */g$^{w}$en-énti/ → *$g^{w}$nénti* 'they kill' > Hitt. *kunanzi*

**§2.7 Default accent and PA 'plows':** If so, the leftmost ICTUS of (post-epenthesis) PA **térep–* follows straightforwardly from the normal application of (7) PA DEFAULT ACCENTUATION, i.e. (11):

(11) PA */t(e)rep-ti/ → **térepti* > Hitt. *terippzi* 'plows'

- With subsequent generalization of the strong stem (including accent!) in the plural per Melchert (2014:140). I tentatively assume that this analogic leveling (and similar leveling in *–nin–*-infix verbs of the type further discussed in §3) is post-PA, but the chronology is uncertain.

**§2.8 Anaptyctic 'retraction' as leftmost default in PA:** It is possible to account for 'retraction' of inherited accent to leftmost syllable in PA **térep–* and *téri–* by a principle of ICTUS assignment akin to the BAP, which is typologically well-founded and established for synchronic Vedic (Kiparsky 2010); in §3, independent support for PA default leftmost ICTUS is adduced.

## §3 Default accent & PA nasal-infix presents

**§3.1 Accentuation of PA nasal-infix presents:** As noted already in §1, nasal-infix presents in Hittite (and PA) bore ICTUS on the leftmost syllable; this situation clearly innovative vs. PIE, where ICTUS fell on the nasal-infix, e.g. Hitt. *ḫūnikzi* 'batters' vs. Ved. *yunákti* 'yokes'.

**§3.2 PA nasal-infix presents: 'retraction' as default?** Previously unexplained 'retraction' in this morphological category may be mechanically derived by application of (7) PA DEFAULT ACCENTUATION—hence (1a–1b) as in (12), with default assignment of leftmost ICTUS:

(12) **Deriving Hittite nasal-infix presents:**

a. /Honink – zi / → *ḫūnikzi* [χóːniŋk͡tsi] 'batters'
b. /ninink – zi/ → *nīninkzi* [níːniŋk͡tsi] 'mobilizes'

**§3.3 A PA innovation?** Proposed derivation in (12) assumes an unaccented, monomorphemic stem which must be innovatory with respect to PIE, where the inflectional base was morphologically complex, derived via infixation of PIE */–né–/.

**§3.4 Morphological innovations in PA:** Application of PA DEFAULT ACCENTUATION thus entails two minimal innovations: (i) reanalysis of the inherited morphologically complex stem as simplex—a process termed 'demorphologization' by Probert (2006)—and (ii) subsequent loss of inherent accent.

- cf. Probert (2006:291): "When a word has undergone 'demorphologization', its accentuation can no longer be determined by the presence of an inherently accented suffix as the suffix is no longer treated synchronically as present. The word may retain its... accentuation, but the necessary accentual property now becomes a characteristic of the whole synchronically unanalysed stem. On the other hand, the word may lose its inherent accent altogether, in which case... accent will be assigned by default."

**§3.5 'Demorphologization'—how and why?** Determining causes for 'demorphologization' remains an open research question; however, much progress toward this end by Probert (2006:259), according to whom "a stem formed with [a suffix] may come to be treated synchronically as monomorphemic if, for some formal or functional reason, the word loses its connection with a synchronically clear category of words containing the suffix."

**§3.6 Motivating PA 'demorphologization':** In the case of nasal-infix verbs, 'demorphologization' due to general PA loss of nasal-infix verbs as a synchronically-derived morphological class; this development likely owes to:

**§3.6.1 Paucity of evidence:** Traces of a derivational relationship between simplex base and derived nasal-infix verb are extremely limited—only (13a–13b) in Hitttite—which is indicative of (at least) non-productivity in this function:

(13) **Simplex : derived nasal-infix verbs in Hittite:**

a. *ištarnink–* 'cause to be sick' : *ištark–* 'be(come) sick'

b. *ḫarnink–* 'destroy' : *ḫark–* 'die' ⇒ *ḫarg(a)nu–* 'destroy' (!!)

- For the inner-Hittite development of a second nasal (i.e. *–ni<u>n</u>–*) in the inherited infix in formations to velar-final roots, see Hart (1977); though *ḫunink–* may be related to *ḫuek–* 'slaughter' etymologically (cf. Kloekhorst 2008:363), it is very unlikely that a derivational relationship held between them synchronically PA, since the nasal-infix present reflects the older PIE pattern of forming a derived imperfective stem from a telic root (cf. *LIV*$^2$ s.v. **h$_2$u̯eg–*) rather than the pattern of derived transitive/causative beside stative/intransitive base that is reconstructible for (early) PA.

**§3.6.2 Functional replacement:** Original PA 'transitivizing' function of **–ne–* is productively continued instead by *–nu–*suffixation (cf. Luraghi 2012:7–9)—and note esp. Hitt. (13b), where *–nin–*infixed stem has been renewed by productive *–nu–* formation.

- Luwian formations assure the productivity of **–nu–* in this function already in PA, e.g. CLuw. *ḫuinuwa–* 'cause to run' (: *ḫuiya–* 'run'); HLuw. (CRUS)*tanu(wa)–* 'cause to stand' (: *ta–* 'stand'), (SOLIUM)*isanu(wa)–* 'to seat' (: *as–* 'sit').

**§3.7 PA 'demorphologization':** Exposed to a small (and gradually diminishing) number of exemplars to instantiate the derivational relationship between nasal-infix verbs and synchronic base, it is plausible that language learners failed to acquire the complex morphological structure of this category, instead treating (e.g.) earlier PA */Hu – né – g–/ as monomorphemic */Hunég–/ (→ **Hunékti*) with lexically-listed accent.

**§3.8 Consequences of 'demorphologization':** Once accent has been lexically-listed on a word-by-word basis, there is little motivation for speakers to treat (historical) nasal-infix verbs as a coherent synchronic category.

**§3.9 Motivating PA default accentuation:** Without a clear synchronic category to support their idiosyncratic non-initial ICTUS (among athematic *mi–*verbs), nasal-infix verbs were regularized by elimination of lexical accent—hence (e.g.) PA */Hunég–/ > */Huneg–/ → **Húnekti* (Hitt. *ḫūnikzi*) via PA DEFAULT ACCENTUATION.

- This process could be viewed as traditional analogic change on the basis of athematic *mi–*verbs or, more generally, grammar optimization in the sense of Kiparsky (1996).

**§3.10 Synopsis of the development of PA nasal-infix verbs:** Diachronic trajectory for (1a–1b) proposed in §3 is schematized in (14):

(14)

| | **'batters'** | | | **'mobilizes'** | | |
|---|---|---|---|---|---|---|
| **Stage I** | */Heu – né – g – ti/ | → | **Hunékti* | */ney – né – k – ti/ | → | **ninékti* |
| **Stage II** | */Hunég – ti/ | → | **Hunékti* | */ninék – ti/ | → | **ninékti* |
| **Stage III** | */Huneg – ti/ | → | **Húnekti* | */ninek – ti/ | → | **ninékti* |
| **Hittite** | /Honink – zi/ | → | *ḫūnikzi* [χóːnikt͡si] | /ninink – zi/ | → | *nīninkzi* [níːniŋkt͡si] |

**Stage** I: PA preserves inherited PIE morphological pattern of deriving nasal-infix verbs.

**Stage** II: Nasal-infix verbs undergo 'demorphologization' due to formal and functional opacity of derivational infix **–ne–*; surface forms remain stable due to lexicalization of accent.

**Stage** III: Lexical accent is lost, leading to PA DEFAULT ACCENTUATION and consequent leftmost ICTUS in these forms.

## §4 Preliminary conclusions & implications

**§4.1 A unified phonological account:** In §§2–3, evidence has been presented in support of PA DEFAULT ACCENTUATION—a principle of default leftmost ICTUS assignment, the operation of which allows for a unified phonological account of accent 'retraction' in (1).

**§4.2 The (diachronic) domain of default accentuation:** (PA) default accentuation may be(come) operative and introduce prosodic change in at least two separate categories:

**§4.2.1 Historically unaccented formations:** Default accentuation may persist even when phonological change results in assignment of ICTUS to a (historically) new position; in the case of PA (1c) **térep–*, (1d) **púnuss–*, and (1e) **téri–*, PA DEFAULT ACCENTUATION assigns ICTUS to the (historically) new epenthetic vowel, yielding descriptive 'retraction' with respect to the inherited form.

**§4.2.2 'Demorphologized' formations:** Default accentuation may come to apply to historically accented formations when morphological complexity fails to be acquired ('demorphologization') and underlying accent is lost; when nasal-infix verbs undergo these developments in PA, PA DEFAULT ACCENTUATION assigns leftmost ICTUS, which appears to be 'retracted' from PIE **–né–*.

**§4.3 Default accentuation as inheritance:** Like other synchronic rules—e.g. the 'Double Dental Rule' in PA and OH; cf. Melchert (1994:49, 58, 109)—PA DEFAULT ACCENTUATION may be inherited into the Anatolian languages.

- Inheritance is, in fact, expected, in the absence of a clear reason for opacity.

**§4.4 Default accentuation in the Anatolian languages:** Retention of PA DEFAULT ACCENTUATION as a synchronic rule into the Anatolian languages predicts a general tendency for 'retraction' of ICTUS to the leftmost syllable within other morphological categories (some perhaps reconstructible for PA).

- The diachronic tendency to innovate 'default' accentuation in Greek is discussed at length by Probert (2006:138–44) (cf. Gunkel 2014); for another case of this phenomenon in Greek and Vedic, see Lundquist (2014) on PIE */–tí–/*.

**§4.5 'Retraction' in Luwian?** Additional support for inheritance may come from (previously unexplained) 'retraction' in generalized verbal weak stems, e.g. CLuw. *tūwa–* 'put'; *pīya–* 'give' (cf. Melchert 1994:89).

- In these cases, it is easy to see why learners would intuit an unaccented stem, since the ICTUS—their only positive evidence for underlying accent—-consistently falls on the inflectional endings in all forms with weak stem allomorph. Pal. *pīša–* 'give' (iter.) and perhaps Lyd. *bid* seem to show the same generalization with 'retraction.'

**§4.6 Default accentuation in IE perspective:** With the establishment of PA DEFAULT ACCENTUATION, PA joins Greek, Vedic, and Balto-Slavic as an ancient IE language (branch) where ICTUS is synchronically determined by the interaction of morphologically-specified accentual properties and phonological principles.

- 'Compositional' analyses of ancient IE languages employing such principles include: for Greek, Kiparsky (1967, 1973, 2003, 2010, forthcoming), Steriade (1988), Sauzet (1989), Golston (1990), Probert (2006, 2010), Gunkel (2014), and Lundquist (2014); for Vedic, Kiparsky (1973, 1984, 2010, forthcoming), Kiparsky and Halle (1977), and Lundquist (2014); and for Balto-Slavic, Garde (1976, 2006), Halle and Kiparsky (1979, 1981), Dybo (1981, 2000), and Halle (2001).

**§4.7 Default accentuation in PIE?** Significant evidence for leftmost default in Vedic (cf. §2.2) and Balto-Slavic (e.g. Kiparsky and Halle 1977), and Greek 'recessive' accentuation—the phonological default (Probert 2006:128–44)—may reflect the same rule in modified form, viz. leftmost within the accentable domain; PA DEFAULT ACCENTUATION would match this pattern, and thereby provide support for a PIE principle of default leftmost ICTUS assignment, i.e. (15):

(15) PROTO-INDO-EUROPEAN DEFAULT ACCENTUATION:
If a word has no inherently accented syllable, the leftmost syllable gets the ICTUS.

- (15) is properly a subset of the BAP in (5), the PIE status of which has been advocated by Kiparsky (e.g 2010, forthcoming).

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## §5 Appendix: Anaptyxis & accent 'retraction'/'attraction'

**§5.1 Accent 'retraction' as 'attraction'?** (1c–1e) provide important evidence for Melchert's (2013) rule whereby an anaptyctic vowel to left of the inherited accent automatically 'attracts' the surface accent; note, however, that all three involve retraction to the word-initial syllable.

**§5.2 Evidence for word-medial accent 'attraction'/'retraction'?** Word-medial anaptyxis allows for testing of the causal connection between anaptyxis and accent 'retraction' assumed by Melchert (2013); putative examples of a Hittite pre-tonic word-medial anaptyctic vowel 'attracting' original accent in (16):

(16) **Word-medial anaptyxis according to Oettinger (1982:170–2):**

a. *pišēn(a)–* [pisé꞉n(a)–] 'man; male' < PIE **pes-nó-*
b. *paršēna–* [parsé꞉na–] 'hip; cheek' < PIE **pers-nó/éh₂(-)*
c. °*ūman–* '(appurtenance/ethnicon suffix)' < PIE **–mén–/*–wén–*

**§5.2.1 Hittite 'man; male':** (16a) from **pes-nío-* problematic in view of consistent spelling with singleton *-š-* and OH/OS gen. s. [*p*]*išnaš* without anaptyctic vowel; rather, with Zucha (1988:53–4) and Carruba (1993) from ablauting **pes-ēn / *pes-n-´* (cf. Melchert 1994:175; 2013:178–9 n. 11)

**§5.2.2 Hittite 'hip; cheek':** Assumed pre-form for (16b) hardly secure—in particular, accent entirely *ad hoc*; likely root equations Gk. πτέρνη, Skt. *pā́rṣṇi-* both show initial accent; moreover, no clear phonological motivation for anaptyxis in this lexical item.

- No anaptyxis occurs in phonologically-similar *parš(a)na-* 'leopard' (< **pr̥̄s-no-*; cf. Oettinger 1986:22), spelled <*pár-aš°* / *pár-ša°*>; perhaps, then, with Melchert (1994:175) from PIE **pr̥̄s-éno-*.

**§5.2.3 Hittite *–ūman–*:** Likely via phonologically-driven anaptyxis to **–CC–* final roots, e.g. $^{LÚ}$*ḫištūman–* 'man of the bone-house ($^{É}$*ḫištā–*)'; $^{URU}$*Salampūmeneš* 'inhabitants of Salampa' (Oettinger 2003:147; cf. Oettinger 1982), yet clearly extended, e.g. $^{URU}$*Katapūmeneš* 'inhabitants of Katapa'; these remain otherwise unexplained.

- Melchert (2013) also explains *-e/i-* alternations in Hittite *–s/–n–* heteroclites as the result of "competing levelings" of a prehistoric paradigm made irregular by the interaction of anaptyxis and accentual mobility.

**§5.3 Counter-evidence to accent 'attraction':** Hittite verbal formations with iterative-inchoative suffix *–škē–* (< **–sk̂é–*) consistently surface with surface accent on the suffix despite an anaptyctic vowel to the left, e.g. (17); total lack of evidence for accented anaptyctic vowel in this category constitutes strong evidence against 'attraction' (at least) as a synchronic phonological rule in Hittite.

(17) **Hittite *–škē–*presents with anaptyxis:**

a. *zi̲kkēt* 'places' : *dāi-* 'place'

b. *akku̲škēši* 'you drink' : *e/aku-* 'drink'

(cf. Kavitskaya 2001:282, 288)

- With Kavitskaya (2001), *zikkē–* 'place' is derived from laryngeal-less /d–ské–/, hence certain to be a synchronic Hittite creation (beside archaic *zaške–*), and similarly, *tarniške–* 'release' (beside older *taršikke–*); Melchert (2013:179), for whom the anaptyxis rule is "prehistoric", argues that "regular retraction of the accent is blocked in this productive formation under pressure of stems without anaptyxis."

- Other counter-evidence to the rule as formulated includes Hitt. *šumittant-* 'axe' < PIE **smit-é/ont–*; Craig Melchert (p.c.) therefore suggests a more limited formulation of the rule, according to which only an anaptyctic vowel in the *immediately* pretonic syllable attracts the accent. The *–ské–* forms nevertheless remain problematic.

**§5.4 Anaptyxis & accent 'attraction' in typological perspective:** Anaptyctic vowels frequently invisible to phonological processes such as stress assignment (Hall 2011:1586; cf. Hall 2006), e.g. (18a) and (19a) vs. (18b) and (19b) with anaptyxis from Lebanese Arabic (LA) and Mohawk (M):

(18) **Stress in Lebanese Arabic:**

a. LA /fihim – na/ → [fi.ˈhim.na] 'he understood us'

b. LA /fihm – na/ → [ˈfi.h̲im.na] 'our understanding'

(cf. Haddad 1984:26–7; Hall 2011:1586)

(19) **Stress in Mohawk:**

a. M. /k – ohar – haʔ/ → [ko.ˈhar.haʔ] 'I attach it'

b. M. /te – k – rik – s/ → [ˈte.k̲e.riks] 'I put them together'

(cf. Michelson 1981, 1989)

- The (Latin-like) stress rule in LA relevant to (18) is 'stress a closed penult, otherwise the antepenult'; Mohawk has consistent penultimate stress except in words like (19b) with anaptyxis.

**§5.4.1 Accented anaptyctic vowels:** In some cases, anaptyctic vowels do bear surface word accent—rarely (if ever), however, by virtue of being anaptyctic, but rather by occupying a position where stress is regularly assigned by phonological rule—e.g. (20), again from Lebanese Arabic:

(20) LA /katab-t-l-ha/ → [ka.tab.ˈt̲il.ha] 'I wrote to her'

- This exceptional accentual pattern is found only when the anaptyctic vowel is inserted into a CCCC sequence (cf. Hall 2011:1586). Per Michelson (1989), Mohawk also has some stressed epenthetic vowels, namely, those which emerge from "*e*-Epenthesis II" (cf. Michelson 1981).

**§5.5 Reassessing 'retraction'/'attraction':** In view of limited positive evidence for and non-trivial evidence against a causal connection between anaptyxis and accent 'retraction', as well as potential typological objections, the rule of Melchert (2013) should be invoked cautiously, and an alternative explanation for (1d–1e) preferred, if available.

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