

# On Proto-Anatolian Verbal Ablaut: The Hittite *ašanzi*-Type Reexamined

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A matter of ongoing controversy is the source of the initial vowel #*a*- apparent in the weak stem of Proto-Anatolian (PA) verbal paradigms which continue PIE roots of the shape  $*h_1eT$  (where  $*T$  = any stop or  $*s$ ). The four roots in question are in (1), all very frequent and belonging to the core of the lexicon:

	PIE $*h_1eT$ -	(strong) PA $*eT$ - > Hitt. $eT$ -	(weak) PA $*aT$ - > Hitt. $aT$ -
(1)	$*h_1eg^{wh}$ - ‘drink’	<i>ekuzi</i> ‘drinks’ [3s.pres.act.]	<i>akuanzi</i> ‘they drink’ [3pl.pres.act.]
	$*h_1ed$ - ‘eat’	<i>ēzzi</i> ‘eats’ [3s.pres.act.]	<i>adanzi</i> ‘they eat’ [3pl.pres.act.]
	$*h_1ep$ - ‘take’	<i>ēpzi</i> ‘takes’ [3s.pres.act.]	<i>appanzi</i> ‘they take’ [3pl.pres.act.]
	$*h_1es$ - ‘be’	<i>ēšzi</i> ‘is’ [3s.pres.act.]	<i>ašanzi</i> ‘they are’ [3pl.pres.act.]

Essentially three accounts have been proposed to explain the vocalism of the weak stem:

- (i) The vowel directly reflects vocalization of the laryngeal  $*h_1$  in the zero-grade, i.e. PIE  $*\#h_1T$ -,  $*\#h_1s$ - > PA  $*\#aT$ -,  $*\#as$ - (cf. Kimball 1999: 390-91, with lit.).
- (ii) The vowel is the orthographic representation of a glottal stop [ʔ], the preserved reflex of the PIE glottal stop  $*h_1$  (cf. Kloekhorst 2007).
- (iii) The vowel is analogical on the basis of  $*TeT$  roots and  $*ses$ - ‘sleep’, where PA  $*TaT$ -,  $*sas$ - is the development of (already) PIE  $*T_əT$ -,  $*s_əs$ - (cf. Melchert 1994: 66-67).

I argue that none of these accounts are entirely satisfactory. With respect to (i), as observed already by Melchert (1994:67), there is no compelling evidence for the vocalization of  $*h_1$ , i.e. outside of the very paradigms ‘vocalization’ is intended to explain. Similarly untenable is (ii); for critiques of the Hittite and Luwian evidence, see Weeden (2011) and Melchert (2010), respectively. More plausible is (iii); if the proposed analogy were simply the case of extending a dominant  $*e/a$  morphological pattern, the approach of Melchert (1994) would be unproblematic. However, the assumed nucleus of verbs which would manifest this phonological pattern is less than robust—in fact, the only assured example is  $*ses$ - :  $*sas$ - ‘sleep’. In view of the very limited evidence for the analogical base from which the vowel was *ex hypothesi* introduced into the paradigms of these roots, an alternative to (iii) would be desirable.

I therefore offer a new proposal, namely, that the problematic PA  $\#*a$ -vocalism in these roots is the expected phonological reflex of Proto-Anatolian ablaut which, I will argue, continues inherited morpho-phonological patterns, but does so in accordance with evolving phonotactic constraints in the synchronic grammar. Crucial to this account is a conception of Indo-European (quantitative) ablaut as a *synchronic* morpho-phonological process of vowel reduction (to zero, if possible) in Proto-Anatolian, operative in deriving surface forms from underlying representations; as such, it

may be blocked where its operation would result in a phonotactically inadmissible sequence. This principle is generally assumed to explain the vocalism of PIE *\*TeT* roots (weak *<sup>X</sup>TT-*) and, in the relevant case, the divergent PA vocalism of *\*TeR* and *\*TeT* roots in the weak stem of ablauting *mi*-verbs, as exemplified in the contrast between Hitt. *kunanzi* [k<sup>w</sup>n-ántsi] ‘they kill’ (-*ø*-) where ablaut has applied, and Hitt. *šašanzi* [sas-ántsi] ‘they sleep’ (-*a*-) where it has been blocked.

I propose that this blocking principle should be extended to roots of the shape *\*h<sub>1</sub>eT* in PA, whence Hitt. *ašanzi*, *adanzi*, etc. like *šašanzi*. While a word-initial onset *\*#FT-* (where *\*F* = *\*s*, *\*H*) was clearly admissible in PIE, it had evidently become problematic in PA due to the emergence of a highly-ranked SONORITY SEQUENCING PRINCIPLE (SSP), the important role of which in the phonology of Hittite has been demonstrated by Kavitskaya (2001) (cf. Yakubovich and Kassian 2002). Although the phonological interpretation of the very few secure examples of inherited *\*#HT-* clusters (e.g. Hitt. *hatukzi* ‘is fearful’; cf. Gk. ἄτύζομαι ‘am afraid’) remains unclear, strong support for a highly-ranked SSP in PA comes from the outcomes of inherited initial *\*#sT-* clusters in Hittite and Luwian, e.g. (2):

(2)	<b>PIE <i>*sT-</i></b> <i>*spor-</i> ‘spread’ <i>*st(e)h<sub>3</sub>men-</i> ‘ear’	<b>Hitt. <i>išT-</i></b> <i>išpāri</i> <i>ištāminas</i>	<b>CLuw. <i>T-</i></b> <i>parritti</i> <i>tummān</i>
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Each language reflects a different mode of phonological repair for these phonotactically problematic clusters: epenthesis in Hittite, and deletion of the initial fricative in Luwian. This mixed treatment suggests a common PA stage at which inherited falling sonority onsets were tolerated, but sufficiently problematic that processes creating new such onsets were blocked—in the case at hand, the inherited PA ablaut rule that reduces the root vowel of */\*h<sub>1</sub>eT-énti/* to *[\*ø]*. This approach offers a purely (morpho)-phonological explanation for the weak stem *a*-vocalism of the problematic verbs in (1), deriving this outcome from the interaction of ablaut and phonotactic constraints which are independently motivated in the grammar. I suggest, moreover, that formalizing the proposed blocking principle in terms of Optimality Theory (Prince and Smolensky 1993) will allow for the statement of an important, general property of the synchronic phonology of Proto-Anatolian that cannot be clearly expressed in a rule-based framework.

## References

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