



Hittite *kane/išš-^{zi}* ‚to recognize‘ and other *s*-extended verbs

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1. In his article on PIE **ǵneh₃-* ‚to recognize, to know‘, Jasanoff (1988) tries to show that Hitt. „*kanēšzi*“¹ ‚recognizes‘ reflects PIE **ǵnēh₃-s-ti*, which form is supposed to be an *s*-present of the inchoative type with Narten *é/é*-ablaut. In this form, **ē* would then not have been coloured by the adjacent **h₃*, a „major piece of evidence for the correctness of Eichner’s non-coloration rule“ (1988: 236).²

An important argument in favor of the archaicity of this form is, according to Jasanoff, the parallel formation that is found in TochA *kñasäšt* ‚du kennst dich aus‘, which he reconstructs as **ǵnēh₃-s-* as well. Because Hackstein (1993: 151f.) has shown that TochA *kñasäšt* is to be taken as a Pret. III of the present stem *knāna-* with completely regular morphological palatalisation and *s*-suffix, this argument cannot be maintained: the formation of *kñasäšt* can easily be inner-Tocharian.

Moreover, Jasanoff’s supposition that PIE possessed an ‚inchoative‘ formation with *s*-suffix and *é/é*-ablaut is based on fairly circumstantial reasonings only. First, Jasanoff assumes that the several verbal *s*-formations as attested in the Indo-European languages (desideratives, inchoatives, iteratives) originate from a single PIE formation because „the thoroughgoing morphological parallelism of the three groups of sigmatic formations (i.e. desiderative, inchoative and iterative) provides important *circumstantial* evidence for deriving them from a common source“ (1988: 236; emphasis added). Secondly, of the non-Anatolian IE languages, Jasanoff cites two verb categories with *s*-suffix in which he assumes that traces of an original acrostatic *é/é*-ablaut still can be found. The first category is the Baltic *s*-future. Jasanoff (1988: 233) suggests that it originally had an acrostatic paradigm, which, according to him, can be seen in the dual and plural endings of the Baltic *s*-future, that have an *-i-* as union vowel (Lith. 1pl. *dúosime*, 2pl. *dúosite*), which he explains through false segmentation of a hypothetical 3pl. **-sint(i) < *-s-nti*. This *Ø*-grade ending then would imply a full grade in the root of the 3pl., which would point to an original acrostatic paradigm with **é/é*-ablaut for these *s*-futures. However, as he states, „no trace of apophonic alternation is actually retained in Lithuanian, which synchronically makes its future by adding *-s-* to the infinitive stem“ (1988: 233). Kortlandt (1982: 7-8) plausibly argues that the Baltic *s*-future reflects a paradigm with *e*-grade throughout the paradigm and athematic endings. The second category is the Old Irish unreduplicated *s*-future. Jasanoff thinks it must have had *é/é*-ablaut originally, because „it is *suggestive* that of the six verbs for which such futures are attested, four are *associated* with lengthened-grade formations elsewhere“ (1988: 233; emphasis added).³ The citation speaks for itself.

¹ The form in fact is *kane/išzi*, as we will see below.

² Cf. Eichner 1973 for Eichner’s Law, which states that PIE **ē* did not get coloured by an adjacent **h₂* or **h₃*.

³ See Kortlandt 1984 for an extensive treatment of the Old Irish futures.

In my opinion, Jasanoff’s assumption that all verbal *s*-suffixes in the Indo-European languages originate from a single source, and that this formation originally had an acrostatic ablaut **é/é* of which Hitt. *kanešš-^{zi}* (from **ǵnéh₃-s-ti* / **ǵnéh₃-s-nti*) would then be the sole survivor is based on fairly rash and unconvincing, even circular reasoning only.⁴

2. If we want to make reliable statements on the origin of the verb *kanešš-^{zi}*, we first have to look at the synchronic facts within Hittite. I will therefore investigate all Hittite verbs that show an *s*-extension in order to establish which ablaut pattern they reflect. These *s*-extended verbs are:⁵

<i>harš-^{zi}</i> ,to till (the soil)‘	< <i>*h₂erh₃-</i> + <i>-s-</i> ?
<i>kallišš-^{zi}</i> / <i>kališš-</i> ,to call‘	< <i>*kelh₁-</i> + <i>-s-</i>
<i>kane/išš-^{zi}</i> ,to recognize‘	< <i>*ǵneh₃-</i> + <i>-s-</i>
<i>karš-^{zi}</i> ,to cut‘	< <i>*ker-</i> + <i>-s-</i>
<i>kuerš-^{zi}</i> ,to cut‘	< <i>*k^wer-</i> + <i>-s-</i>
<i>pahš-ⁱ</i> ,to protect‘	< <i>*peh₂-</i> + <i>-s-</i>
<i>pāš-ⁱ</i> ,to swallow‘	< <i>*peh₃-</i> + <i>-s-</i>
<i>tamāšš-^{zi}</i> / <i>tame/išš-</i> ,to (op)press‘	< <i>*demh₂-</i> + <i>-s-</i>

3. Because of its peculiar ablaut, I will first focus on the verb *tamāšš-^{zi}* / *tame/išš-* ,to (op)press‘. This verb is generally considered to be cognate with Gk. δάμνημι ,to tame, to subdue‘, Ved. *damáyati* ,to control, to restrain (oneself)‘, etc., and therefore must reflect **dmeh₂-s-*.⁶ Diagnostic attestations from OH and MH texts are: 3sg.pres.act. *ta-ma-a-aš-zi* (IBoT 1.36 i 34 (MH/MS)), [*ta-m*]a-aš-zi (KUB 35.21 rev. 16 (MS)), 3pl.pres.act. *da-me-iš-ša-a[n-zi]* (KUB 29.48 rev. 19 (MH?/MS)), *ta-me-eš-ša-an-zi* (Oettinger 1979: 122 (MH)), 3sg.pret.act. *ta-ma-a-aš-ta* (KUB 24.4 obv. 15 (OH/MS)), *ta-ma-aš-ta* (KUB 24.4 obv. 16 (OH/MS)), 3pl.pret.act. *ta-me-eš-šer* (KBo 22.2 rev. 12 (OH/MS)), *da_x-m[i-i]š-šer₉* (KBo 3.38 rev. 29 (OH/NS)),⁷ 3sg.imp.act. *ta-ma-a-aš-du* (KUB 33.66 i 16 (OH/MS)), part. *ta-mi-eš-ša-an-t-* (KUB 12.43, 10 (OS)), *ta-me-eš-ša-an-t-* (IBoT 1.36 iii 59 (MH/MS)), inf.I *ta-ma-aš-šu-ua-an¹-zi* (IBoT 4.25 rev. 6 (OS?)), impf. *da-me-eš-ke/a-* (KBo 22.1 obv. 1, 19 (OS), KBo 15.32 iv 3 (OH/MS)), *ta-me-eš-ke/a-* (KBo 22.1 obv. 3 (OS)).

We see that we can establish an ablaut opposition between a strong stem *tamāšš-* and a weak stem *tame/išš-*: *tamāšzi* / *tame/iššanzi*. Because this verb is the only *mi*-conjugating verb to show such an ablaut, it requires an explanation.

⁴ Lehrman (1997) also strongly speaks against Jasanoff’s circular argumentation. However, Lehrman’s own explanation of *kanešzi*, regarding it as reflecting a root **ǵnē-* alternating with **ǵnō-*, denies all the merit that the laryngeal theory has brought us.

⁵ The denominative *s*-extended verbs *ištamašš-^{zi}* ,to hear‘ (< **st(e)h₃men-* + *-s-*) and *kammarš-^{zi}* ,to defecate‘ (< **ǵ^hod-mr* + *-s-*?) are left out of consideration here.

⁶ The Schwebe-ablaut assumed here, **dmeh₂-s-* (reflected in *tamāšzi* << **dméh₂-s-ti*) vs. unextended **demh₂-*, is paralleled by other cases of Schwebe-ablaut occurring in *s*-extensions of PIE verbal roots: **mieks-* is derived from **mej₂k-*; **h₂leks-* from **h₂elk-*; *h₂ūeks-* from **h₂eug-*; cf. LIV²: 278, 289, 445.

⁷ A NH value *da_x* for the sign *dam* (HZL 298) is suggested by Melchert 1991: 126.

The most promising treatment of this ablaut thus far is by Melchert (1994: 70-1), who observes that an acrostatic paradigm 3sg. **dméh₂-s-ti* / 3pl. **dméh₂-s-nti* as implied by Jasanoff's article on **ǵneh₃-s-ti* / **ǵneh₃-s-nti* cannot account for Hitt. *tamāšš-* / *tame/išš-*. Melchert assumes that the original *é/é*-ablaut has been supplanted by *é/Ø*, yielding **dméh₂-s-ti* / **dmh₂-s-énti*, which in his view lead to the attested Hittite paradigm. In order to derive 3pl. *tame/iššanzi* from a zero-grade form **dmh₂-s-énti*, Melchert⁸ suggests that in this latter form the laryngeal is regularly lost between consonants. The resulting initial cluster **dms-* would normally vocalize its *-m-*, but, according to Melchert, in this case remains **dms-* due to „an analogical maintenance of non-syllabic sonorant after the strong stem“ (1994: 71). The cluster **dms-* is eventually relieved by an anaptyctic vowel *e*,⁹ resulting into attested *tamešš-* = [tmess-]. Melchert further thinks that the 3sg.-form **dméh₂-s-ti* would regularly yield ***tamaḥšzi*, and proposes that the paradigm ***tamaḥšzi* / *tameššanzi* eventually is levelled out to attested *tamāšzi* : *tameššanzi*.

It is rather odd, however, that Melchert on the one hand assumes an acrostatic paradigm for **dmeh₂-s-* in analogy to Jasanoff's reconstruction for **ǵneh₃-s-*, but on the other hand does not take the ultimate consequence of Jasanoff's theory into account, namely that through Eichner's Law **dméh₂-s-ti* should have yielded Hittite ***tamēḥšzi*. In that case, it would be highly improbable to assume that a pre-Hitt. paradigm **tamēḥšzi* / **tameššanzi* would be levelled out to *tamāšzi* / *tameššanzi* as attested. Nevertheless, Melchert's suggestion that 3pl.pres. *tame/iššanzi* goes back to the zero-grade form **dmh₂-s-énti* is an appealing explanation of this problematic form, albeit that later on we will see that this development is not secondary, but rather the result of a regular development **CRHsV* > Hitt. *CaRe/iššV*.

In my view, the only way to account for the Hittite paradigm *tamāšzi* / *tame/iššanzi* is to assume that the 3sg.-form reflects *e*-grade, as is logically indicated by the zero-grade we find in the 3pl. An original paradigm 3sg. **dméh₂-s-ti* / 3pl. **dmh₂-s-énti* will regularly lead to ***tamaḥšzi* / *tame/iššanzi*, which, as Melchert stated as well, is likely to have been levelled to *tamāšzi* / *tame/iššanzi* as attested in the oldest Hittite texts.

From the Middle Hittite period onwards we find further levellings within the paradigm of *tamāšš-/tame/išš-*: the vowel *-e/i-* of the weak stem is taken over into strong stem forms as well (3sg.pres.act. [t]a-mi-iš-z[i] (KBo 18.69 rev. 12 (MS)), *da_x-me-e-eš-zi* (KUB 12.2 iii 15 (NS)), 3sg.pret.act. *da_x-me-eš-ta* (KBo 13.68 obv. 11 (NS))) and the vowel *-a-* of the strong stem is taken over in weak stem forms as well (3pl.pres.act. *ta-ma-[aš]-ša-an-z[i]* (KUB 15.34 i 44 (MH/MS)), *da_x-ma-aš-ša-an-zi* (KUB 59.34 iii 7 (NS)), part. *ta-ma-aš-ša-an-t-*, *da-ma-aš-ša-an-t-*, *da_x-ma-aš-ša-an-t-*).

To sum up, the peculiar synchronic ablaut of *tamāšš^{-zi}* / *tame/išš-* is best explained by assuming that it goes back to the PIE **e/Ø*-ablaut.

4. The verb *kallišš^{-zi}* / *kališš-* ‚to call‘ has since Laroche (1961: 29) generally been connected with Gk. καλέω, Lat. *calāre* ‚to call‘, etc., which reflect PIE **kelh₁-*. The correct interpretation of the Hittite forms is, however, still much debated upon. The

⁸ Following Van den Hout 1988, who derives *tame/išš-* from **dmh₂-s-* in a slightly different way.

⁹ Compare Kimball 1999: 193-9, who gives many examples of anaptyctic vowels written as <e> or <i>.

attestations of this verb are:¹⁰ 3pl.pres.act. *ga-li-iš-ša-an-zi* (IBoT 2.80 vi 4 (OH/NS)), 3sg.pret.act. *kal-li-iš-ta* (KUB 17.5, 6 (OH/NS)), 3sg.imp.act. *kal-li-iš-du* (KUB 24.1 i 12 (NS), KUB 24.2 obv. 11 (NS)), inf.I *kal-li-iš-šu-u-ua-an-z[i]* (KUB 20.88 vi 22 (MS)), *kal-le-eš-šu-ua-an-zi* (KUB 41.8 i 22 (MH/NS), KBo 10.45 i 38 (fr.) (MH/NS)). Although Oettinger (1979: 197) calls the flexion of this verb „völlig regelmäßig“, the attestations do show traces of ablaut, which can be characterised by the opposition of 3sg.pret. *kal-li-iš-ta* with geminate *-ll-* vs. 3pl.pres. *ga-li-iš-ša-an-zi* with single *-l-*. The difference in quantity of *-l-* must reflect a real phonological opposition.

The etymological details of *kallišš-^{zi}* / *kališš-* are problematic. Oettinger (1979: 197) improbably interprets the verb as a back-formation from Hitt. *kalleštar* ‘invitation’ < **kalh₁-es-tr*. Kimball (1999: 412) assumes that it is an extension of a stem **kalh₁-éh₁-* as also visible in Umbr. *kařitum*, *kařetu*, *carsito* < Ital. **kalētōd*. As the Umbrian forms that show **kalē-* probably are an inner-Italic innovation,¹¹ the postulation of a PIE formation **kalh₁-éh₁-* is incorrect.

I think it is still best to treat *kallišš-* / *kališš-* as an *s*-extension. We then see that 3pl.pres. *ga-li-iš-ša-an-zi* can be traced back to a preform **klh₁-s-énti*, in the same way as *tame/iššanzi* reflects **dmh₂-s-énti*, showing the development **CRHsV* > Hitt. *CaRe/iššV*.

The interpretation of the strong stem *kallišš-* (also twice attested as *kallešš-*!) is more difficult. Because of the geminate *-ll-*, this form has to be interpreted with a real vowel *-a-*, [kalle/iss-]. This requires a preform **kVlh₁-s-*, because a zero-grade form **klh₁-s-* would, as we saw, have yielded *kale/išš-* = [kle/iss-]. Oettinger’s and Kimball’s assumption that the root reflects **kalh₁-* besides **k_lh₁-* in Gk. *καλέω* is not satisfactory. If we apply the sound law **eRCC* > Hitt. *aRCC*,¹² we can safely assume that the vowel was **e*, which we also would expect on the basis of the fact that this verb shows the *mi*-conjugation. I therefore reconstruct e.g. 3sg.pret. *kallišta* as **kélh₁-s-t*. The *-e/i-* in the strong stem *kalle/išš-* can be explained as the anaptyctic vowel *-e/i-* that has emerged in the final cluster of **kélh₁sC^o*, which is completely parallel to the development of e.g. **demh₂sh₂ó-* > Hitt. *damme/išhā-* ‘violence, harm’.¹³

Summing up, also *kallišš-^{zi}* / *kališš-* must reflect the ablaut **e/Ø*, namely **kélh₁sti* / **klh₁sénti*.

5. Traces of ablaut may also be seen in the verb *kuerš-^{zi}* ‘to cut off’. It is connected with Hitt. *kuer-^{zi}* ‘to cut’, Ved. *kṛṇóti* ‘to do’, and must go back to **k^wer-s-*. The only Hittite attestation of this verb is 1sg.pret.act. *ku-e-er-šu-un* (KBo 10.2 ii 48 (NS)) which seems to reflect **k^wérs-ṃ*. Other attestations are all Luwian, but show the zero-grade form *kurš-*: *kuršayar* (n.) ‘cut-off, isolated area, island’, *kuršaun-ant-* (c.) ‘id.’.

¹⁰ Following Puhvel 1997: 22-3.

¹¹ Cf. Schrijver 1991: 399-400.

¹² Cf. Melchert 1994: 136-7. Note that *genzu-* ‘lap, abdomen’ < **ǵen_{h1}-su-* shows that **eRh₁CV* does not participate in this rule. This does not affect *kallišta* < **kélh₁-s-t*, however, since here we are dealing with a sequence **eRh₁CC*.

¹³ On the basis of these forms we can set up a sound law **VRHsC* > Hitt. *VRR*e*/išC*.

Besides *kuerš-* we also find the reduplicated verb *kuk(k)urš-* ‘to cut up, to mutilate’ (part. *kukuršant-*, impf. *kuyakuyaraške/a-*, *kukkuraške/a-*, *kukkureške/a-*) from **k^w-k^wrs-*.

The attested forms can give only circumstantial evidence for an ablaut pattern *kuerš-/kurš-* from **k^wer-s-* / **k^wr-s-*, also reflecting **e/Ø*.

6. A few *s*-presents are indeterminate as to whether they show traces of ablaut or not. The verb *pāš⁻ⁱ* ‘to swallow, to gulp down’ is generally connected with Ved. *píbatī*, Lat. *bibō*, etc. ‘to drink’ and reflects **peh₃-s-*. The following attestations are cited in CHD: 3sg.pres.act. *pa-a-ši* (KUB 27.29 iii 9 (MH/NS), HT 1 i 42 (MH/NS)), *pa-aš-zi* (KUB 7.1 i 30 (pre-NH/NS), KUB 60.56, 7 (NS), KUB 60.75, 5), 3pl.pres.act. *pa- ša? -a[n-zi]* (KBo 34.2, 40), *paš?(or piš)-ša-an-zi* (KUB 51.33, 4), 2sg.pret.act. *pa-aš-ta* (KUB 33.120 i 29 (MH/NS)), 3sg.pret. *pa-aš-ta* (KUB 29.7 rev. 55 (MH/MS), KUB 33.120 i 26 (MH/NS)), *pa-a-aš-ta* KUB 43.38 rev. 15 (NH)), *:pa-aš-ta* (KUB 49.2 i 14 (NH)), 3sg.imp.act. *pa-a-šu* (KBo 10.45 iv 4 (MH/MS), KUB 41.8 iv 3 (MH/MS), KUB 43.38 rev. 11, (16) (NS)), *pa-aš-du* (KUB 29.7 rev. 55 (MH/MS)), inf.I *pa-a-aš-šu-an-zi* (KBo 32.114 obv.⁷ 6), impf.. *pa-aš-ke/a-* (e.g. KUB 8.65 i 10), *pa-a-ši-iš-ke/a-* (KBo 32.14 iii 18, rev. 32 (MH/MS)).

The strong stem, *pāš-*, could in principle reflect **peh₃-s-* or **poh₃-s-*. Note that a preform **pēh₃-s-* is impossible. Because *pāš-* is *hi*-conjugated, I reconstruct **póh₃-s-*.

For determining the ablaut grade of the weak stem, we have to look critically at the attested forms. In CHD, two forms are cited as 3pl.pres.act., viz. *pa- ša? -a[n-zi]* (KBo 34.2, 40) and *paš?(or piš)-ša-an-zi* (KUB 51.33, 4). Especially the latter form is dubious. First, the reading *paššanzi*, which CHD seems to prefer over *piššanzi*, is not very satisfactory as a reading *paš_x* of sign HZL 244 (*piš*) has been suggested by Catsanicos (1994: 315) on rather limited grounds only. Secondly, the form occurs in such a broken context, that its meaning is unascertainable. It is indicative that CHD itself cites exactly the same form as 3pl.pres.act. *piššanzi* of the verb *peš(š)^{-zi}* ‘to rub’. We therefore rather leave the form *paš?(or piš)-ša-an-zi* out of the discussion. Despite its bad preservation, the other 3pl.pres.act.-form that is cited in CHD, *pa- ša? -a[n-zi]*, is reliable as the context in which it occurs indeed seems to demand a translation ‘they swallow’. The phonological interpretation of this form is ambiguous, however. It could stand for /psant^si/ as well as for /pasant^si/. In the former case, /psant^si/ could regularly reflect a zero-grade **ph₃-s-enti*, which would mean we are dealing with an ablauting paradigm **póh₃-s-ei* / **ph₃-s-énti*. In the latter case, however, /pasant^si/ could just reflect that unaccentuated variant of the strong stem *pāš-* that was generalized, which would mean that we cannot speak of genuine ablaut anymore.

7. The case of *karš^{-zi}* ‘to cut’ is also unclear. It is generally connected with Gk. *κείρω* ‘to cut’, Lith. *skirti* ‘to divide’ and reconstructed as **(s)ker-s-*. Its most important attestations are:¹⁴ 1sg.pres.act. *kar-aš-mi* (KUB 29.1 i 36), 2sg.pres.act. *kar-aš-ti* (KBo 12.30 ii 1), 3sg.pres.act. *kar-aš-zi* (often, e.g. KUB 30.22, 18), 1pl.pres.act. *kar-šu-u-e-*

¹⁴ See Puhvel 1997: 100-5 for more attestations.

ni (KUB 23.9, 4), 2pl.pres.act. *kar-aš-te-ni* (KUB 13.4 iv 56), 3pl.pres.act. *kar-ša-an-zi* (often), etc.

Since both PIE **kers-¹⁵* and **k_ṛs-* regularly yield Hittite *karš-*, we cannot decide whether the paradigm of *karš-^{zi}* reflects ablaut or not. Note that a preform **kē_r-s-* would have yielded Hitt. ***kērš-* and therefore must be excluded.

8. The verb *harš-* ‘to till (the soil)’ gives no information on an original ablaut either because of its poor attestation: 3sg.pres.act. *har-aš-zi* (VBoT 58 i 30), 3sg.pret.act. *ha-a-ar-aš-ta* (KBo 34.29, 7), inf. *har-šu-ua-an-z[i]* (KBo 6.28 rev. 22), impf. *har-aš-ke-u-e-n[i]* (KBo 19.104, 7), *har-ši-iš-kán-zi* (KUB 24.7 i 21), *har-ši-eš-kán-[zi]* (KUB 51.74 obv. 12).

The etymology is unascertainable. Puhvel (1954: 86-8) interprets the verb as a loanword from either Akk. *harāṣu* ‘to dig a furrow’ or Akk. *harāṣu* ‘to plant’. Others¹⁶ connect the verb with Gk. ἄρῳ, Lat. *arō* ‘to plough’, which implies a reconstruction **h₂erh₃-s-*.¹⁷ Even if the latter etymology is correct and *harš-* would indeed be an *s*-extended verb, it does not shed any light on an original ablaut pattern.

9. The verb *paḥš-ⁱ* ‘to protect’ does not show traces of ablaut anymore either. It is connected with Ved. *pāti* ‘to protect’, Lat. *pāscō* ‘to graze’ and reflects **peh₂-s-*. This well attested verb inflects thus:¹⁸ 1sg.pres.act. *pa-aḥ-ḥa-aš-ḥi*,¹⁹ 2sg.pres.act. *pa-aḥ-ḥa-aš-ti*, 1pl.pres.act. *pa-aḥ-šu-e-ni*, 2pl.pres.act. *pa-aḥ-ḥa-aš-te-ni*, 3pl.pres.act. *pa-aḥ-ša-an-zi*, 1sg.pret.act. *pa-aḥ-ḥa-[aš-ḥu-u]n*, 3sg.pret.act. *pa-aḥ-ḥa-aš-ta*, 3pl.pret.act. *pa-aḥ-šer*, 2sg.imp. *pa-aḥ-ši*, 2pl.imp. *pa-aḥ-ḥa-aš-te-en*, 3pl.imp. *pa-aḥ-ša-an-du*, etc.

We see that synchronically the stem of the verb is /paḥs-/, which appears as *paḥš-* before vowels and as *paḥḥaš-* before consonants, the latter with an anaptyctic vowel -a-. The original ablaut opposition 3sg.pres. **póh₂s-ei* vs. 3pl.pres. **ph₂s-énti* should have given *paḥši* / ***pšanzi*, which apparently has been levelled to *paḥši* / *paḥšanzi*. Note that there is no indication for original acrostatic inflection.

10. None of the Hittite *s*-extended verbs that are examined up to now shows any trace of an original acrostatic or ‘Narten’-inflection whatsoever. Instead, whenever an original ablaut can be determined it can be shown to go back to **e/Ø* for *mi*-conjugated verbs and to **o/Ø* for *hi*-conjugated verbs. With this in mind we must now turn our attention to the verb we started our discussion with.

11. The verb *kane/išš-^{zi}* ‘to recognize’ synchronically shows no ablaut. Its most important attestations are:²⁰ 1sg.pres.act. *ga-ni-eš-mi*, *ka-ni-iš-mi*, 3sg.pres.act. *ga-ne-eš-zi* (OS), *ga-ni-eš-zi* (OS), *ka-ni-eš-zi*, *ka-ni-iš-zi*, *ka-ni-e-eš-zi*, 3pl.pres.act. *ka-ni-eš-*

¹⁵ According to Melchert (1994: 136-7), PIE **erCC* > Hitt. *arCC*.

¹⁶ See Tischler 1977ff.: 182-3 for references.

¹⁷ This etymology may have become problematic as we now would expect a preform **h₂erh₃-s-t* to have become ***harre/išta* (with **VRHsC* > *VRR*e*/išC*).

¹⁸ See CHD for a full list of attestations.

¹⁹ It is unclear to me why Oettinger (1979: 210) cites „*paḥš-^{mi}*“, while there is only one attestation 1sg.pres.act. *pa-aḥ-ḥa-aš-mi* (KUB 29.1 i 19 (OH/NS)) vs. many attestations *pa-aḥ-ḥa-aš-ḥi*.

²⁰ See for an extensive list of attestations Puhvel 1997: 42-5.

ša-an-zi, *ga-ni-eš-ša-an[-zi]*, *ka-ni-iš-ša-an-zi*, *ka-ni-e-eš-ša-an-zi*, 1sg.pret.act. *ka-ni-iš-šu-un*, 2sg.pret.act. *ka-ni-iš-ta*, 3sg.pret.act. *ga-ni-eš-ta*, *ga-ni-iš-ta*, *ka-ni-eš-ta*, *ka-ni-iš-ta*, 3pl.pres.act. *ga-ni-eš-šer* (OS), part. *ka-ni-eš-ša-an-t-*, *ka-ni-iš-ša-an-t-*.

The verb is spelled with *-ne-eš-*, *-ni-eš-* as well as *-ni-iš-*. Spelling with a plene vowel, *-ni-e-eš-*, is attested in one text only, KBo 22.178 + KUB 48.109, where we find *ka-ni-e-eš-zi* as well as *ka-ni-e-eš-ša-an-zi*.

Since Laroche (1961: 27) this verb is generally connected with PIE **ǵneh₃-*. As we saw above, Jasanoff (1988) explains 3sg.pres. „*kanēšzi*“ (which in fact is *kane/išzi*) as reflecting acrostatic **ǵnéh₃sti*, which view has found many followers in IE linguistics. Reconstructing an acrostatic (*ē/e*-ablauting) paradigm implies that the 3pl.pres. was **ǵnéh₃snti*, which by regular sound laws should have given Hitt. ***kanāššanzi*. Apparently, Jasanoff assumes a reshaping of expected ***kanāššanzi* to attested *kane/iššanzi* in analogy to 3sg.pres. „*kanēšzi*“. In my view, the analogy was precisely the other way around.

The 3pl.pres.-form *kane/iššanzi* is reminiscent of *tame/iššanzi* < **dmh₂-s-énti* and *gališšanzi* < **klh₁-s-énti*. I therefore assume that 3pl.pres. *kane/iššanzi* is the regular reflex of the zero-grade form **ǵnh₃-s-énti*, again with the development **CRH₃V* > *CaRe/iššV*. As the other *s*-extended verbs show either **e/Ø*-ablaut (when *mi*-conjugated) or **o/Ø*-ablaut (when *hi*-conjugated), it is *a priori* highly probable that besides zero-grade 3pl.pres. **ǵnh₃-s-énti*, the 3sg.pres. was in *e*-grade: **ǵnéh₃-s-ti*. According to our understanding of Hittite historical phonology, we would expect that 3sg.pres. **ǵnéh₃sti* would regularly yield Hitt. ***kanāšzi*.²¹

The expected paradigm ***kanāšzi* / *kane/iššanzi* reminds us of the attested OH paradigm *tamāšzi* / *tame/iššanzi*. As we saw above, this latter paradigm from MH times onwards became subject to secondary reshaping, yielding the younger attestations 3sg.pres. *[t]a-mi-iš-z[i]*, *da_x-me-e-eš-zi* and 3sg.pret. *da_x-me-eš-ta*. These forms must have received their *-e/i-* in analogy to 3pl. *tame/iššanzi*.

In my view, this analogical remodelling is completely parallel to the one found in the paradigm of *kane/išš-:* the original paradigm **kanāšzi* / *kane/iššanzi* is levelled out to the attested paradigm *kane/išzi* / *kane/iššanzi* on the basis of 3pl. *kane/iššanzi*.²²

12. The thus established ablaut-patterns for the *s*-extended verbs in Hittite, **CéC-s-ti* / **CC-s-énti* or **CóC-s-ei* / **CC-s-énti*, fit well into the picture Kuiper (1934) paints of the PIE *s*-presents. He states that originally PIE *s*-presents must have had the structure

²¹ For loss of **h₃* in this environment compare Hitt. *lāman* ‚name‘ < **h₃neh₃m₂* and *pāši* ‚drinks‘ < **póh₃s-ei*.

²² As I pointed out earlier, Jasanoff’s theory implies a levelling as well: the alleged acrostatic 3pl.pres. **ǵnéh₃snti* regularly should have given ***kanāššanzi*, which then should have been analogically reshaped to attested *kane/iššanzi*. The levelling I propose here has the advantage over Jasanoff’s one that it is supported by the parallel analogical creation of 3sg. *tame/išzi* on the basis of 3pl. *tame/iššanzi*, whereas a levelling of **kane/išzi* / **kanāššanzi* to attested *kane/išzi* / *kane/iššanzi* is unparalleled: other *e/a*-ablauting *mi*-verbs rarely end up having *e/e*. The difference in time between the levelling of **kanāšzi* to *kane/išzi* (pre-Hitt.) and of *tamāšzi* to *tame/išzi* (inner-Hitt.) may be due to the fact that **ǵnéh₃sti* already at a very early stage lost its laryngeal and became **kanāšzi*, whereas **dméh₂sti* regularly yielded **tamahšzi*, the laryngeal of which first had to be analogically removed, only after which the analogical development of *tamāšzi* to *tame/išzi* was possible.

**CC-és-ti* / **CC-s-énti*,²³ yet observing that „das alte, reiche Paradigma war schon in vorhistorischer Zeit in Verfall geraten“ (1934: 241): within the PIE period it is altered to **CéC-s-ti* / **CC-s-énti*. This more recent paradigm is exactly the one we find in Hittite as well.

Conclusion

13. As we saw above, there is no need anymore to assume that 3sg. „*kanēšzi*“ reflects an acrostatic **gnéh₃-s-ti*. The form in fact is *kane/išzi*, which is perfectly explicable as an analogical creation based upon 3pl. *kane/iššanzi* which reflects **gnh₃-s-énti*. Herewith an important argument in favour of Eichner’s Law has disappeared.²⁴ The development of *kane/iššanzi* < **gnh₃sénti* is regular and has parallels in *tame/iššanzi* < **dmh₂sénti* and *gališšanzi* < **klh₁sénti*, all according to the newly established sound law **CRHsV* > Hitt. *CaRe/iššV*. This development resembles the sound law **VRHsC* > Hitt. *VRRe/išC*, which can be inferred from *kallišta* < **kélh₁st* and *damme/išhā-* < **demh₂sh₂ó-*.

Excursus

14. Our findings offer an interesting etymological possibility for the verbs *ānš-ⁱ* ‘to wipe’ and *hane/išš-^{zi}* ‘to wipe’.

The verb *ānš-ⁱ* ‘to wipe’ is characterised by the following attestations: 3sg.pres.act. *a-an-ši* (KBo 30.158, 9 (MS), KBo 21.80+20.44+30.158 obv. 35 (MS), etc.), *a-a-an-ši* (KUB 30.41 i 14 (OH/NS)), 3pl.pres.act. *a-an-ša-an-zi* (often), 1sg.pret.act. *a-an-šu-un* (KUB 41.19 rev. 10, 11, 12, 14 (MH/NS)), 2sg.imp.act. *a-an-aš* (KBo 21.8 ii 4 (OH/MS), KUB 33.5 ii 7 (OH/MS), IBOT 3.141 i 14 (OH/NS)), 3sg.imp.act. *a-an-aš-du* (KUB 7.1 ii 68 (OH/NS)), part. *a-an-ša-an-t-*, impf. *a-an-aš-ke/a-*, *a-an-ši-ke/a-*, *a-an-ši-iš-ke/a-*.

Melchert (1988: 211 ff.) argues that a CLuwian cognate can be seen in the verb *am(ma)šš(a/i)-* ‘to wipe’, which implies that Hitt. *ānš-* goes back to older **āmš-*. In the same article (1988: 212³) Melchert suggests an etymological connection with Gk. ὀμάω ‘to mow, to reap’, OE *māwan* and OHG *māwen*, *māen* ‘to mow’. At first sight, this proposal seems formally implausible, however: on the basis of the Greek and Germanic forms Melchert assumes an alternating root **am-h₁-* / **m-eh₁-*, admitting that this alternation is highly unusual. Later on, Melchert (1994: 165) seems to have abandoned this etymology all together and reconstructs Hitt. *ānš-* and CLuw. *am(ma)šš(a/i)-* as PAnat. **óms-* (with *o*-grade as indicated by the *hi*-conjugation in Hittite).

15. The Hittite verb *hane/išš-^{zi}* ‘to wipe, to plaster’²⁵ is semantically quite similar to *ānš-ⁱ*, as can be seen by e.g. the passage KBo 19.142 iii 30-31 [...] *iškiezzi nu MUNUS IŠTU*

²³ Based on Pedersen 1921: 26.

²⁴ See now also Kloekhorst fthc.a § 1.4.9.2.b for the observation that in Hittite none of the alleged examples in favour of Eichner’s Law can withstand scrutiny.

²⁵ The verb is often used to describe the plastering of houses with clay, on the basis of which Puhvel (1991: 86-8) translates it as ‘to plaster: to wipe (tears)’, assuming that ‘to plaster’ is the primary

GAB.LĀL [... a]nda ḥanišzi ,... salves and the woman plasters with wax‘ that has a striking parallel in KUB 33.5 ii 7 nu=za GAB.LĀL dā n=an arḥa ānaš ,take wax and wipe him off‘.²⁶

Its paradigm is characterised by the following attestations: 3sg.pres.act. ḥa-ni-iš-zi (KUB 41.4 ii 21 (MH/NS), KBo 19.142 iii 31 (NS)), ḥa-ni-eš-zi (KBo 29.65 i 5 (NS), KUB 10.99 vi 10 (fr.), KUB 41.83 obv. 4 (fr.)), ḥa-ne-eš[-zi] (KUB 10.99 vi 7, 12), 2pl.pres.act. ḥa-ni-iš-te-ni (KUB 29.1 iii 32 (OH/NS)), ḥa-ni-eš-te-ni (KUB 29.1 iii 31, 32, 33 (OH/NS)), 3pl.pres.act. ḥa-ni-iš-ša-an-zi (KBo 43.61 i 3 (NS), KUB 11.3 i 5 (OH/NS)), ḥa-ni-eš-ša-an-zi (IBoT 3.148 iii 15 (MH/NS)), 3pl.pret.act. ḥa-ni-eš-še-er (KUB 40.83 obv. 15 (NS)), 2pl.imp.act. ḥa-ni-eš-te-en (KUB 29.1 iii 34 (OH/NS)), 3pl.imp.act. ḥa-ni-eš-ša-an-du (KUB 31.91 ii 6 (MH/NS)), ḥa-ni-iš-ša-an-du (KUB 31.86+ ii 42, KUB 31.87+88 ii 16 (fr.) (MH/NS), KUB 13.2 ii 15 (MH/NS)), part. ḥa-ni-iš-ša-an-t-, inf.I ḥa-ni-eš-šu-ṽa-an-zi (KUB 29.1 iii 29 (OH/NS)), ḥa-ni-iš-šu-ṽa-an-zi (KBo 18.33 obv. 6).

Not only semantically the two verbs are similar, I think we can connect them formally as well. Since a cluster *-ms- regularly yields Hitt. -šš- (e.g. ḥašša- ,progeny‘ < *h₂ems-o-, ḥaššu- ,king‘ < *h₂ems-u-, cf. Kloekhorst fthc.a: § 1.4.7.1.a), the stem ānš-, when connected with Luw. am(ma)šš(a/i)-, points to a preform with a cluster *-mHs-. Furthermore, if we assume with Kortlandt (2004) and Kloekhorst (fthc.b) that initial laryngeals are neutralised before *o in Anatolian, we can derive 3sg.pres.act. ānši from a preform *HómHs-ei. As all Hitt. s-extended verbs reflect either e/Ø-ablaut when mi-conjugated or o/Ø-ablaut when ḥi-conjugated, we would expect to find besides 3sg.pres. *HómHs-ei a 3pl.pres.-form *HmHs-énti. Because of the semantic similarity between ānš-ⁱ and ḥane/išš-^{zi}, I want to propose that this reconstructed 3pl.pres.-form *HmHs-énti in fact is the preform of ḥane/iššanzi, showing the development *CRHsV > CaRe/iššV as unravelled above.²⁷

This inner-Hittite connection of ānš-ⁱ with ḥane/išš-^{zi} from *HómHs-ei / *HmHs-énti re-opens Melchert’s etymological suggestion (1988: 212¹³⁰) to compare ānš-ⁱ with Gk. ἄμᾶω ,to mow, to reap‘, OE māwan, OHG māwen, māen ,to mow‘.²⁸ The Greek and Germanic forms reflect a root *h₂meh₁-, which means that the Anatolian material must go back to an s-extension *h₂emh₁-s-.²⁹

It is quite understandable that a paradigm 3sg.pres. *h₂ómh₁-s-ei / 3pl.pres. *h₂mh₁-s-énti that regularly yielded Hitt. ānši / ḥane/iššanzi is not retained as such in Hittite. Both ablaut variants formed their own paradigm: ānši became the source of ānši / ānšanzi whereas ḥane/iššanzi served as the basis for ḥane/išzi / ḥane/iššanzi.

meaning out of which the translation ,to wipe‘ has developed. This seems semantically unlikely to me: a development ,to wipe‘ > ,to coat (houses with clay)‘ > ,to plaster‘ is much more probable.

²⁶ Translations by Puhvel 1991: 86-8.

²⁷ The development of *HmHsV- to ḥane/iššV- with -n- seemingly contradicts the development of *dmh₂sV > tame/iššV, where we find -m-. In my view, the development *CmHsV > Cane/iššV is the regular one, whereas in the case of *dmh₂-s-énti > tame/iššanzi the -m- was restored in analogy to the full grade forms *dmeh₂-s- where -m- was regularly retained.

²⁸ Melchert (l.c.) semantically justifies this connection by comparing Hitt. ṽars(iṽa)- ,to reap, to harvest, to wipe‘ from PIE *ṽers- ,to wipe‘.

²⁹ Again with ,Schwebe-ablaut‘, cf. note 6.

If the scenario presented here can be justified, then the spreading of the stem *hane/išš-* throughout the paradigm with 3pl.pres. *hane/iššanzi* as the point of departure is exactly parallel to the spreading of the stem *kane/išš-* throughout the paradigm of *kane/išš-^{zi}* on the basis of 3pl. *kane/iššanzi*.

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