Munus amicitiae

Norbert Oettinger
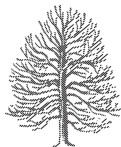
a collegis et amicis dicatum

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MUNUS AMICITIAE

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Hittite *nai*-, *nē*-, Sanskrit *nī*-, and the PIE Verbal Root **(s)neh*₁-

ALWIN KLOEKHORST AND ALEXANDER M. LUBOTSKY

Ever since Hrozný 1917:29 n. 3, the Hittite verb *nai-ⁱ*, *nē-ᵃ⁽ʳⁱ⁾* 'to turn, to send' has been etymologically connected with Skt. *nī-* 'to lead'. The root of these two verbs is commonly reconstructed as **neih*₁/₃*-*.[1] In the following, we will argue that this reconstruction cannot account for the formal peculiarities of the Hittite forms and that an alternative solution is called for. First, however, we will give a treatment of the semantics of both verbs.

1 Semantics of Hitt. *nai*-, *nē*- and Skt. *nī*-

In Hittite, the basic meaning of the middle verb *nē-ᵃ⁽ʳⁱ⁾* is 'to turn (oneself) in a certain direction':

(1) [(*n=aš=za=kan* GÙB-*la*)] **nēᵢa**

'He **turns** to the left.' (KUB 42.99 iʔ 9–10 with dupl. KUB 12.51 i 17)

(2) *nu=ṷa=za=kan* EGIR-*pa* **nāišḫut** ANA KURᵀᴵᴹ*=IA=ma=ṷa=kan anda lē uṷāši*

'**Turn** back; don't come into my land!' (KUB 41.17 ii 16–8)

The active verb *nai-ⁱ* means 'to turn (something/someone) in a certain direction':

(3) *kēl mene=ššit duṷān kēll=a mene=ššit duṷān* **nēᵢanzi**

'They **turn** the one's face in one direction, and the other's face in the other direction.'   (KBo 6.26 i 36–8)

(4) *n=ašta* ᴳᴵˢ*ḫulugannin* EGIR-*pa* **neᵢanzi**

'They **turn** the carriage around.' (IBoT 1.36 iii 68)

When the object of *nai-ⁱ* is a human being, the verb can also be translated 'to send', a meaning that is easily derived from 'to turn in a direction':

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[1]E.g. Oettinger 1979:460–1, 481–2, 515; Eichner 1980:129 n. 41; 1988:140; Kimball 1983:373–80; 1999:210; Melchert 1984:46, 67–8, 93; *LIV*² 450–1; Kloekhorst 2008:598–60.

(5) *āppa=m=an=kan* ZI-*it ŪL* **nēānzi**

'They shall not turn/send him back of their own will.' (KUB 23.72 rev. 23)

(6) *man=kan* ᵈUTUŠᴵ *BELI=I̯A BELU kuinki parā* **naitti** . . .

'If you, My Majesty, my lord, were to send forth some lord . . .' (HKM 46 rev. 15–6)

Whenever *nai-ⁱ* takes words like 'strings', 'strands of yarn', 'cords', 'bracelets', etc. as its object, it means 'to tie (around)', a meaning that must have derived from 'to turn in a direction' through an intermediate meaning 'to wind, to twist':

(7) *nu=ššan* NAGGA *tepu* ˢᴵᴳ*ištaggai anda ḫūlali̯ēzzi n=at=šan ANA BELUTIM kunni ANA QATI=ŠU* GÌR=*ŠU* **nāi**

'He enwraps a piece of tin with a string and **ties** it around the hands and feet of the patients.'   (KUB 27.67 ii 34–5)

(8) EGIR=*ŠU=ma=za* 2 ḪAR.ŠUᴴᴵᴬ 2 ḪAR.GÌRᴹᴱˢ **nāi**

'Afterwards he **ties** onto himself two bracelets and two anklets.' (KUB 12.51 iʼ 22)

(9) *nu* ᴺᴬ⁴*ku̯anna* KÙ.BABBARᴴᴵᴬ *i̯anzi* . . . *n=aš=kan ANA* GU₄.MAḪ UDU.ŠIR GÚ-*ši anda* **nei̯anzi**

'They make beads of silver . . . and **tie** these around the neck of a bull and a ram.'   (KUB 24.12 iii 12–5)

(10) *nu=šmaš=šan* ḪAR.SAG SA₅ SÍG.BABBAR *taruppan* GÚ=*ŠUNU anda* **nei̯anza**

'A red headband with white wool braided into it is **tied** around their necks.'   (KUB 9.28 iii 11–3)

The reduplicated derivative of *nai-ⁱ*, *nanna/i-ⁱ*, usually has animals as its object, and means 'to drive'. This verb is the original intensive/imperfective of *nai-ⁱ* and therefore must originally have meant 'to repeatedly turn back and forth', i.e. 'to lead an animal by constantly adjusting the direction in which it walks'.[2]

(11) *nu* ANŠE-*in* **nannianzi**

'They **drive** a donkey.' (KBo 22.2 obv. 7–8)

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[2] Since *nanna/i-* often has multiple animals as its object, it may also have had a distributive meaning. The -*ške/a*-imperfective *naiške/a-* is attested in a few forms only, from MH times onwards, whereas *nanna/i-* is attested in OS texts already. This indicates that *naiške/a-* must be a new formation that is formed according to the synchronically productive pattern, whereas *nanna/i-* was the original imperfective of *nai-*.

(12) GU₄^{ḤI.A}=u̯a UDU^{ḤI.A} ANŠE.KUR.RA^{ḤI.A} ANŠE.GÌR.NUN.NA^{ḤI.A} ANŠE^{MEŠ} *mekki* **nanniau̯eni**

'We **are driving** cattle, sheep, horses, mules and donkeys in large numbers.'

(KBo 12.42 rev. 7–8)

Occasionally, *nanna/i-ⁱ* occurs intransitively, and then means 'to drive, to ride in a vehicle':

(13) *INA* ^{URU.DU₆}*Ku*[(*nnū*)] **nannaḫḫun** *nu ḫaršiḫarši udaš*

'I **was driving** to the ruins of Kunnū when a thunderstorm broke.' (KBo 4.2 iii 40–1)

In Sanskrit, the verb *nī-* means 'to lead, to guide', but also 'to conduct, to direct', and is very often used with preverbs specifying the direction ('to direct up, along, around, down, etc.'), which is also true of its Avestan cognate. For Proto-Indo-Iranian, we can reconstruct two idioms (cf. *EWAia* II:19):

(a) 'to direct, to drive a horse': Skt. *áśvaṃ nayat* (RV 8.17.15+) ∼ YAv. *aspa . . . naii̯eṇte* (Yt 10.42) ∼ OP. *asam frānayam* (DB 1.87);

(b) 'to bring (away) the fettered [captive]': Skt. *nayatā* [2pl.] *baddhám* (RV 10.34.4) ∼ YAv. *bastəm naii̯eiti* (V 5.8), *bastəm upanaii̯eni* (Yt 9.18) ∼ OP *basta anayatā* (DB 1.82).

All these meanings are directly comparable to that of the Hittite intensive/imperfective *nanna/i-ⁱ*, and therefore can be regarded as having developed out of the meaning 'to (repeatedly) turn (somebody/something) in a certain direction'.[3]

The semantic connection between Hitt. *nai-*, *nē-* and Skt. *nī-* and its Iranian cognates is thus well-founded. Let us now look at the formal side of this etymology.

2   Hittite: the material

In Hittite, the verb under discussion shows active as well as middle forms. The oldest attested middle forms (from Old Hittite original texts) show the stem *nē-*: 3sg. pres. mid. *nēa*, 3pl. pres. mid. *nēanda*. The same stem is found in the OH attestations of the participle, *nēant-*. In MH times, a *-i̯-* develops between the *ē* and the *a*, yielding 3sg. *nēi̯a*, 3pl. *nei̯anta*.[4] Only in NH times do we find attestations of forms of the first and second person, which show a stem *nei̯a-* (1sg. pres. mid. *nei̯aḫḫari*, 2sg. pres. mid. *nei̯attati*, 1sg. pret. mid. *nei̯aḫḫat*), which is clearly secondary.

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[3]In RV 6.75.6ab *ráthe tíṣṭhan nayati vājínaḥ puró yátra-yatra kāmáyate suṣārathíḥ* 'Standing on the chariot, the excellent charioteer directs the prize-winning horses in front (of him) wherever he wishes', the element of turning the horses is eminently clear.

[4]Note that in the course of time the OH long *ē* is regularly shortened to *e*.

In its active forms, the verb is inflected as follows (for each form, the oldest attestation is given):

	pres.	pret.
sg. 1	*neḫḫi* (MH)	*nēḫḫun* (OH)
2	*naitti* (MH)	*naitta* (MH)
3	*nāi* (MH)	*naiš* (MH)
pl. 1	*naiu̯ani* (MH)	*nei̯au̯en* (NH)
2	*naištani* (MH)	—
3	*nēanzi* (OH), *nei̯anzi* (MH)	*nai̯er* (NH)

Most of these forms follow the pattern of the *dāi/ti̯anzi*-class, i.e. the *ḫi*-inflected class that in principle shows an alternation between stems ending in °*Cai-* (in sg. pres. and sg./pl. pret. forms)[5] and stems ending in °*Ci-* (in pl. pres. forms), like *pai-ⁱ/pi-* 'to give', *dai-/ti-* 'to place', etc.

Admittedly, not all forms of *nai-* fully fit the *dāi/ti̯anzi*-class, but most of these can easily be accounted for: the 1pl. and 2pl. pres. forms with the strong stem *nai-* are trivial replacements of earlier **niu̯eni* and **ništeni* (compare, for instance, 2pl. pres. *paraišteni* 'you blow' << original **parišteni*); the NH 1pl. pret. form *nei̯au̯en*, which replaces earlier **naiu̯en*, shows a stem *nei̯a-* that is clearly taken over from the NH 3pl. pres. form *nei̯anzi*. The only truly problematic form is 3pl. pres. act. *nēanzi* with its *nē-*, whereas we would expect it to contain the stem *ni-* (**ni̯anzi*). Some scholars, the most notable of which is Jasanoff (2003:197), regard the form *nēanzi* as an original form going back to **néih₁/₃-n̥ti*, which would show that this verb reflects an **o/e*-ablauting PIE "**h₂e*-present".

It is, however, highly questionable that *nēanzi* is old. In the three verbs that derive from *nai-*, namely *nanna/i-* 'to drive' (with reduplication), *penna/i-ⁱ* 'to drive (there)' (containing the preverb *pé̆-* 'thither') and *ūnna/i-ⁱ* 'to drive (here)' (containing the preverb *ŭ-* 'hither'),[6] the 3pl. pres. act. forms all show the stem *ni-* and not the stem *ne-*: *nanni̯anzi* (not ***nanne(i̯)anzi*), *penni̯anzi* (not ***penne(i̯)anzi*) and *ūnni̯anzi* (not ***ūnne(i̯)anzi*). According to Jasanoff, this fact can be explained by assuming that in these forms "**-ē̆-* was converted to **-ī̆-* (> *-i-/-i̯-*) by a sound law proper to internal syllables" (Jasanoff 2003:118), e.g. **pé̆ + nēanzi > *pénnīanzi > penni̯anzi*. Yet, such a sound law simply did not exist in Hittite: for instance, **h₁póih₂udʰeh₁mi* yielded Hitt. *pēḫutemi* 'I bring' and not ***pēḫutimi*. Jasanoff's explanation therefore cannot be correct.

Since we see no scenario by which the stem °*ni̯anzi* as attested in *nanni̯anzi*, *penni̯anzi* and *ūnni̯anzi* can be derived from *nēanzi*, these forms must in our view be original, and therefore prove that the paradigm of *nai-* itself originally contained a 3pl.

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[5]Note that *ai* monophthongizes to *e* before *ḫ*, hence the 1sg. forms in °*Ceḫḫ*°.

[6]Cf. Kloekhorst 2008:145–7 for the reason why the derivatives *nanna/i-ⁱ*, *penna/i-ⁱ* and *ūnna/i-ⁱ* inflect according to the *mēma/i*-class, whereas *nai-ⁱ* inflects according to the *dāi/ti̯anzi*-class.

pres. act. form *$nii̯anzi$ as well. This means that the form $nēanzi$ must be secondary. We assume that it was created by analogy with the participle, $nēant$-, which contained the middle stem $nē$- (note that in all Hittite verbs the stem of the 3pl. pres. act. form is the same as the stem of the participle). This replacement must not have taken place until the derived verbs $nanna/i$-, $penna/i$- and $ūnna/i$- had been created, i.e. in rather recent pre-Hittite times. Since the latter verbs did not have a middle counterpart (they are all three active only), their 3pl. pres. act. forms were unaffected and retained the original form with the stem ni-: $nannii̯anzi$, $pennii̯anzi$ and $ūnnii̯anzi$.

3   Root reconstruction: problems

As we have seen, the root of Hitt. nai-^{i}, $nē$-$^{a(ri)}$ is commonly reconstructed as *$neih_{1/3}$-, which means that the middle forms $nēa$, $nēanda$ would reflect *$néih_{1/3}$-o, *$néih_{1/3}$-nto, and that the active forms $nāi$, *$nii̯anzi$ would go back to *$nóih_{1/3}$-ei, *$nih_{1/3}$-$énti$.[7]

Despite its wide acceptance, some details of this reconstruction are formally problematic. The largest problem is that, according to our present-day knowledge of the historical phonology of Hittite, a preform *$nóih_{1/3}ei$ would not have regularly yielded Hitt. $nāi$. Instead, we would expect that the diphthong *oi would in front of the laryngeal have undergone monophthongization to $ē$ (cf. e.g. $ḫēau̯eš$ 'rains' < *$h_2éih_3$-eu-).[8] This means that the preform *$nóih_{1/3}ei$ should have yielded pre-Hitt. */néʔe/, which in its turn (with morphological replacement of the 3sg. ending *$-e$ by $-i$) should have yielded OH **/néi/, spelled **ne-e-i. Of course, one could argue that in the course of the prehistory of Hittite analogical pressure may have played a part in the development of the 3sg. form. For instance, since in the 2sg. form the diphthong *$ói$ would regularly have been retained as a diphthong (*$nóih_{1/3}$-th_2ei > $naitti$), one could argue that by analogy with this latter form the diphthong in the 3sg. form may have been restored, yielding */náie/ > $nāi$. Yet we would rather expect that in a paradigm in which both the 1sg. form ($nēḫḫi$) and the 3sg. form (**$nēi$) show a stem *$nē$-, it is rather the 2sg. form that would have been regularized, in this case to *$nētti$. We therefore find it difficult to believe that the reconstruction of the strong stem of nai- as *$noih_{1/3}$- is correct.

Another problem regarding the reconstruction *$nóih_{1/3}$-ei, *$nih_{1/3}$-$énti$ is that the derivatives of nai-^{i}, namely $nanna/i$-, $penna/i$-^{i}, and $ūnna/i$-^{i}, all show a geminate $-nn$-, whereas we would etymologically expect a single $-n$-: e.g. *$h_1pói$ + *$n(o)ih_{1/3}$- should have yielded **$pēna/i$-, not $penna/i$-.[9]

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[7]Thus e.g. *LIV²* 450–1 ("*ne-$nói̯H$-/niH-"); Kloekhorst 2008:599. Scholars who take the 3pl. pres. act. form $nēanzi$ to be original reconstruct *$nóih_{1/3}$-ei, *$néih_{1/3}$-$n̥ti$ (e.g. Jasanoff 2003:197). Although, as was argued above, the form $nēanzi$ is likely to be secondary and the reconstruction of an e-grade in the plural stem thus is unnecessary, we want to stress that the arguments that follow are independent of the question of which ablaut grade was original in the plural forms of this verb.

[8]Cf. Kloekhorst 2008:340–1.

[9]According to Melchert 1994:154, the gemination in $nanna/i$-, $penna/i$- and $ūnna/i$- is caused by a devel-

All this makes clear that the reconstruction $*nói h_{1/3}\text{-}ei$, $*nih_{1/3}\text{-}énti$ is beset with problems and that we have to look for an alternative analysis of $nai\text{-}^i$.

4 Analysis of *dāi*/*tiᵢanzi*-verbs

As has already been mentioned above, $nai\text{-}^i$ inflects according to the *dāi*/*tiᵢanzi*-class. Most members of this class have a good Indo-European etymology, and can clearly be analyzed as containing a stem that consists of a verbal root enlarged by an *i*-suffix. For instance, $dai\text{-}^i$/*ti*- 'to put, to place' must contain the verbal root $*d^h eh_1\text{-}$ to which an *i*-suffix is added; $i\check{s}pai\text{-}^i$/*i\check{s}pi*- 'to be satiated' must contain the verbal root $*speh_1\text{-}$ + an *i*-suffix; etc.

The exact reconstruction of the ablaut patterns of these verbs has been a matter of some controversy. Although it is generally assumed that their weak stems (*ti*-, *i\check{s}pi*-, etc.) contain the zero-grade of the root + $*\text{-}i\text{-}$ ($*d^h h_1\text{-}i\text{-}$, $*sph_1\text{-}i\text{-}$, etc.), the reconstruction of their strong stems (*dai*-, *i\check{s}pai*-, etc.) was for a long time, and still is, debated. For instance, Melchert (1984:73; 1994:65) and Jasanoff (2003:102) reconstruct these strong stems as $*CéC\text{-}i\text{-}$ ($*d^h éh_1\text{-}i\text{-}$, $*spéh_1\text{-}i\text{-}$, etc.), whereas Oettinger (1979:46) reconstructs them as $*CóC\text{-}i\text{-}$ ($*d^h óh_1\text{-}i\text{-}$, $*spóh_1\text{-}i\text{-}$). But neither reconstruction accounts for a number of verbs belonging to the *dāi*/*tiᵢanzi*-class. For instance, the strong stem of the verb $arai\text{-}^i$/*ari*- 'to (a)rise', which must contain the root $*h_3er\text{-}$ as found in e.g. Gk. ὄρ-νυμαι 'to stir, to rise' (cf. *LIV*² 299), can reflect neither the structure $*CéC\text{-}i\text{-}$ (a stem $*h_3ér\text{-}i\text{-}$ should have yielded **ḫāri-, and not *arai*- as attested), nor the structure $*CóC\text{-}i\text{-}$ ($*h_3ór\text{-}i\text{-}$ should have yielded **(ḫ)āri-). Similarly, the strong stem forms of the verb $\d{h}alzai\text{-}^i$/*ḫalzi*- 'to call, to scream', which according to Puhvel (*HED* 3:63) contains the root $*h_2let\text{-}$ as found in Goth. *laþon* 'to call', can reflect neither the structure $*CéC\text{-}i\text{-}$ ($*h_2let\text{-}i\text{-}$ should have yielded **ḫalezzi-, and not *ḫalzai*- as attested), nor the structure $*CóC\text{-}i\text{-}$ ($*h_2lót\text{-}i\text{-}$ should have yielded **ḫalāzzi-).

The honorand of this volume (Oettinger 1979:xxviii; 2004:400) was the first to argue that *arai*- and *ḫalzai*- should reflect $*h_3roi\text{-}$ and $*h_2ltoi\text{-}$,[10] respectively, an analysis that was extended by Kloekhorst (2006) to all *dāi*/*tiᵢanzi*-class verbs. In this view, all strong stems in *-ai*- should rather be reconstructed as $*CC\text{-}ói\text{-}$, i.e. with zero-grade in the root and with *o*-grade in the suffix: *dai*- < $*d^h h_1\text{-}ói\text{-}$, *i\check{s}pai*- < $*sph_1\text{-}ói\text{-}$, etc. This new category, $*CC\text{-}ói\text{-}ei$/$*CC\text{-}i\text{-}énti$, can in this way be viewed as the "*ḫi*-conjugation variant" of athematic *i*-presents like Skt. *k\d{s}éti*/*k\d{s}iyánti* < $*tk\text{-}éi\text{-}ti$/$*tk\text{-}i\text{-}énti$.[11]

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opment similar to the "gemination of */n/ and */s/ posttonically in secondary sequences involving clitics, like $*nú\text{=}soi > nu\text{=}\check{s}\check{s}e$." Yet, as will be argued in Kloekhorst forthcoming, the geminates as found in clitic chains do not stand in posttonic position at all, and have a different origin. They therefore cannot be compared to the geminate *-nn-* in *nanna/i*-, *penna/i*- and *ūnna/i*- (which indeed do stand in posttonic position).

[10] The *-z-* in *ḫalzai*- < $*h_2ltoi\text{-}$ was taken over from the weak stem *ḫalzi*- < $*h_2lt\text{-}i\text{-}$.

[11] Cf. *LIV*² 644 n. 1 for this analysis of Skt. *k\d{s}ay*-.

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5   New analysis of *nai-ⁱ*

Within the *dāi/tii̯anzi*-class, the verb *nai-ⁱ* has always taken a special position, since it was the only verb that, if one follows the generally accepted reconstruction **noih₁/₃-/ *nih₁/₃-*, does not contain an *i*-suffix, but the *-i-* of which instead was part of the root.[12] But since the reconstruction **noih₁/₃-/*nih₁/₃-* cannot formally be correct, it is worthwhile to examine whether *nai-ⁱ* can reflect a structure similar to the other *dāi/tii̯anzi*-class verbs.

If we apply the analysis **CC-oi-/*CC-i-* to *nai-/*ni-*, we arrive at two possible reconstructions:

   a)   **Hn-(o)i-* (similar to *pai-/pi-* 'to give' < **h₁p-oi-/*h₁p-i-*, *zai-/zi-* 'to cross' < **h₁t-oi-/ *h₁t-i-*, etc.).[13]

   b)   **nH-(o)i-* (similar to *dai-/ti-* 'to put' < **dᵇh₁-oi-/*dᵇh₁-i-*, *isḫai-/isḫi-* 'to bind' < **sh₂-oi-/*sh₂-i-*, etc.; note that *mai-/mi-* 'to grow' < **mh₂-oi-/*mh₂-i-*[14] shows that the sequence **RHV-* indeed regularly yielded Hitt. *RV-*).

To our mind, the second structure is especially attractive, since it would directly account for the geminate *-nn-* in the derivatives *nanna/i-*, *penna/i-* and *ūnna/i-*, which can now be reconstructed as **ne-nH(o)i-*, **h₁pói + *nH(o)i-* and **h₂óu + *nH(o)i-*, respectively.

In order to determine which laryngeal was present in **nH-(o)i-*, we have to look at the middle paradigm of this verb.

6   New analysis of *nē-ᵃ⁽ʳⁱ⁾*

If *nai-ⁱ/*ni-* indeed reflects **nH-oi-/*nH-i-*, this has consequences for the reconstruction of the middle paradigm as well. As we have seen above, the middle stem *nē-* is generally reconstructed as **néih₁/₃-*, with e.g. 3sg. *nēa* < **néih₁/₃-o* and 3pl. *nēanda* < **néih₁/₃-nto*. Yet since the active stem *nai-* cannot reflect **noih₁/₃-*, these reconstructions cannot be correct either.

In view of the active paradigm **nH-oi-/*nH-i-* there are in principle two possible reconstructions for the middle paradigm *nē-ᵃ⁽ʳⁱ⁾*. The first possibility is that the middle paradigm uses the same stem as the active paradigm, albeit with a different ablaut grade. This would mean that *nē-ᵃ⁽ʳⁱ⁾* reflects **nH-ei-*, which automatically means that the laryngeal must have been **h₁*: 3sg. *nēa* < **nh₁-éi-o*, 3pl. *nēanda* < **nh₁-éi-nto*. The second

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[12] The only other *dāi/tii̯anzi*-verb that was always thought to have a special structure as well is *pai-ⁱ/pi-* 'to give', which was often reconstructed as **pĕ̆ + *ai-/*i-*, i.e. a univerbation of the preverb **pĕ̆-* + the verbal root **ai-* (or **h₁ai-*) as found in Gk. αἴνυμαι 'to take' and TochB *ai-*, TochA *e-* 'to give'. Yet, in Kloekhorst 2006 it was argued that this verb, too, is an ordinary *dāi/tii̯anzi*-class verb that is derived from the root **h₁ep-* as attested in Hitt. *ēpp-ᶻⁱ* 'to take' and Skt. *ap-* 'to take' and thus reflects **h₁p-oi-/*h₁p-i-*.

[13] Since a preform **h₂n-(o)i-* should probably have yielded Hitt. ***ḫan(a)i-*, *nai-* could then only reflect **h₁n-(o)i-* or **h₃n-(o)i-*.

[14] Cf. Kloekhorst 2008:540–2.

possibility is that the middle paradigm uses a different stem. Since there are in Hittite several verbs that show an active vs. middle pair in which the active stem is derived but the middle stem is underived (e.g. act. *u̯ašše/a-^{zi}* 'to clothe' < *$u̯s-ié/ó-$[15] vs. mid. *u̯eš-$^{tta(ri)}$* 'to wear' < *$u̯és$-, act. *zinn(i)-^{zi}* 'to end' < *$ti-n-(é)h_1$- vs. mid. *zē-$^{a(ri)}$* 'to cook' < *$tiéh_1$-, or mid. *ar-tta(ri)* 'to stand' < *h_3r- vs. act. *arai-^{i}/ari-* 'to (a)rise' < *$h_3r-(o)i$-), we may assume that the middle stem *nē-* in fact consisted of the bare root *neH-. If so, we again need to assume that the laryngeal was *h_1: 3sg. *nēa* < *$néh_1$-o, 3pl. *nēanda* < *$néh_1$-nto.

Whichever reconstruction is the correct one (although we certainly prefer the latter), it is clear that the laryngeal must be *h_1. We can now reconstruct a root *neh_1- with an active paradigm of the shape *nh_1-ói-ei, *nh_1-i-énti > Hitt. *nāi*, *niu̯anzi*, and a middle paradigm of the shape *$néh_1$-o, *$néh_1$-nto > Hitt. *nēa*, *nēanda*.

7 New analysis of Skt. *nī̄-* and its Iranian cognates

Our new analysis of Hitt. *nai-^{i}* and *nē-$^{a(ri)}$* has consequences for the formal interpretation of Skt. *nī̄-* and its Iranian cognates.

The Sanskrit root *nī̄-* 'to lead, to bring' attests the following formations in the RV: thematic present, both active and middle (*náyati*, *náyate*);[16] sigmatic aorist, both active and middle (2pl. inj. act. *naiṣṭa*, 3pl. med. *aneṣata*, subj. act. *néṣat(i)* and impv. *neṣi*); and perfect (*nināya*, 3sg. opt. *ninīyāt*). Less important are intensive (*ati-nenīyámāna-*), desiderative (2sg. *nínīṣasi*), and passive (*nīyáte*), which do not look archaic. In Iranian, we also find a thematic present (YAv. *naiieiti* 'to lead', OP 3sg. impf. *anaya*, 3sg. impf. med./pass. *anayatā* 'id.') and a sigmatic aorist (OAv. 3sg. subj. act. *naēšaṱ*).[17]

Because of our new interpretation of the Hittite forms, we assume that the IIr. zero-grade stem *niH- (as attested in the Skt. *ta*-participle *nītá-* and YAv. *aiβi.nīti-* f. 'leading towards', etc.) must have been the result of a laryngeal metathesis of *nh_1-i-C° to *nih_1C°.[18] The Skt. perfect (2sg. pf. *ninétha*, 3sg. pf. *nináya*) can now be reconstructed as *$ne-nh_1ói$-, and is thus formally identical to the Hittite intensive/imperfective *nanna/i-* < *$ne-nh_1oi$-. The IIr. thematic present and the aorist can now be reconstructed as PIE *$nh_1éi-e$- and *$nh_1ēi-s$-, respectively, although it cannot be excluded that on the basis of the metathesized zero-grade *niH- new full and lengthened grades have been created and that the present and aorist instead reflect IIr. *$naiH-a$- and *$nāiH-s$-, respectively.

As seen above, the meaning of the IIr. root *niH- 'to lead' is directly comparable to the meaning of the Hittite intensive/imperfective *nanna/i-* 'to drive' < 'to repeatedly turn back and forth'. It therefore cannot be coincidental that the Skt. perfect *nináya* is

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[15]Under the influence of *$u̯es$- the original stem *$u̯sié/ó$- was in pre-Hittite analogically changed to *$u̯si̯é/ó$-, which regularly yielded Hitt. /u̯ɔSé/á-/, spelled *u̯ašše/a-*, cf. Kloekhorst 2008:1006–7.

[16]The forms apparently pointing to an athematic present (2pl. act. *nethá* [RV 10.126.2] and 3du. impf. med. *ánītam* [RV 1.121.5]) are late and most probably nonce.

[17]For other Iranian forms, see Cheung 2006:278.

[18]See Lubotsky 2011:110 for a discussion of this phenomenon.

formally identical to Hitt. *nanna/i-*, both reflecting *$*ne-nh_1oi-$*. We consequently assume that this intensive formation was the source of the Indo-Iranian verb.[19]

8 Other IE cognates: the root *$*(s)neh_1$*-

It is generally assumed that Hitt. *nai-^{i}*, *nē-$^{a(ri)}$* and Indo-Iranian *$*niH$*-* have no other IE cognates. But our new reconstruction of these verbs has shown that they contain a root *$*neh_1$*-*, which to our mind is identical to the verbal root *$*(s)neh_1$*-* that in *LIV²* 571–2 is glossed as "spinnen". This latter meaning cannot be the correct basic meaning of this root, however. Although in Celtic, Italic and Greek the root *$*(s)neh_1$*-* indeed can be used in the meaning 'to spin', this is not always the exclusive meaning: in Old Irish, the basic meaning of the verb *sníid* is rather 'to twist, to bind, to tie'; and in Latin, the verb *neō* can also mean 'to weave' (only in Greek does the verb *νέω* exclusively mean 'to spin'). In Germanic, the verbal root *$*neh_1$*-* is not used in the meaning 'to spin' at all, but only has the meaning 'to sew' (cf. OHG *nāen* 'to sew', PGerm. *$*nēþlō$** 'needle'). Especially this latter fact is relevant: a meaning 'to sew' can hardly be derived from an earlier meaning 'to spin'. The proto-meaning to all these verbs must instead have been 'to turn, to twist, to wind' (cf. Pokorny 1959:973, who glosses *$*(s)neh_1$*-* as " 'Fäden zusammendrehen, mit dem Faden hantieren', daher 'weben, spinnen' und 'nähen'"). The meaning 'to spin' can easily be derived from this proto-meaning since spinning is the act by which one "draw[s] out and *twist[s]* the fibres of some suitable material, such as wool or flax, so as to form a continuous thread" (definition as given by the *OED*; emphasis ours). The meaning 'to sew' can be derived from this proto-meaning because sewing refers to the turning back and forth of the needle (the 'turner') by which the thread is sewn into the cloth. The meaning 'to weave' can likewise be derived from it because this verb refers to the turning back and forth of the warp thread into the weft.

Since the proto-meaning 'to turn, to twist, to wind' is exactly the meaning of the Hittite verb *nai-^{i}*, which also takes 'threads', 'yarns', etc. as its object, there can to our mind be no doubt about the original identity of these verbs. The connection between Hitt. *nai-*, *nē-* and IIr. *$*niH$*-* and *$*(s)neh_1$*-* is further strengthened by the fact that the latter also has forms with an *i*-suffix, i.e. *$*(s)neh_1i$*-*, cf. Lith. *nýtis*, Latv. *nīts* '(warp) thread', and SCr. *nȉt*, Russ. *nit'* 'thread' < *$*nh_1i-ti$*-* (with laryngeal metathesis).[20]

9 More cognates: the root for 'to churn'

In Indo-Iranian and Baltic, we find a root with the meaning 'to churn', traditionally reconstructed as *$*neiH$*-*, but considered unrelated to the Skt. root *nī-* 'to lead' (*EWAia*

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[19] Kümmel's judgement of the Skt. perfect *nināya* as a "Neubildung" (Kümmel 2000:282) was based on the idea that the original meaning of *nī-* was 'to lead, to direct'. In view of the newly found original semantics of this verb, 'to (repeatedly) turn', there is according to Kümmel (pers. comm.) no objection anymore against regarding the perfect ('having turned someone in a certain direction') as an old formation.

[20] Skt. *nīví-* f. 'piece of cloth wrapped round the waist' (AV+) may also belong here and reflect *$*nh_1i-ui$*-*.

II:25–6). The most important forms are: Skt. *náva-nīta-* n. 'fresh butter' (KS+), *nīta-miśrá-* 'not yet entirely made into butter' (TB+); *netra-* 'string by which the churning-stick is whirled around' (Br.+); Khot. *nīyaka-* 'fresh butter', *ñ(y)e* 'buttermilk'; Shuɣni *nay-*, *nid* 'to churn', *nīm-ðō̆rg* 'churnstaff'; Yidɣa *nɪěya* 'sour milk'; Wakhi *pərnɔc* 'to churn', etc.;[21] Latv. *sviestu nīt* 'to churn butter', *pa-nijas*, *pa-nīnas* 'buttermilk'.

The main reason to regard the roots for 'to lead' and 'to churn' as unrelated was their apparent semantic incompatibility, but since churning denotes the action by which the churning-stick is repeatedly turned back and forth, while, as we have seen, the root for 'to lead' derives from an original meaning 'to turn', there can be no doubt that these forms belong to one and the same root.

10 More cognates: 'snake' and 'sinew'

The word for 'snake' that can be reconstructed as *$n(e)h_1$-tr-* (Lat. *natrix*, OIr. *nathir*, Goth. *nadr*, OIc. *naðr*, OHG *nātra*) has been connected with the root *$(s)neh_1$-* before. Yet its original meaning was not 'who spins round' (thus de Vaan 2008:402), but must in view of our findings above rather have been 'the one who turns back and forth', referring to the undulatory locomotion of snakes, by which mode the body of the snake alternately flexes to the left and right in order to move forward.

Also the word for 'tendon, sinew' that can be reconstructed as *$(s)neh_1$-ur/n-* (Skt. *snāvan-*, Av. *snāuuarə*, Gk. νεῦρον, Lat. *nervus*, Arm. *neard*, ToB *ṣ̃naura*) has been identified as a derivative from *$(s)neh_1$-* before, and originally must have meant "thread" (compare Eng. *thread* that is derived from PGerm. *$þrē$-* 'to twist, to turn').

11 Conclusions

We have seen that the Hittite verb *nai-ⁱ*, *nē-ᵃ⁽ʳⁱ⁾* cannot formally reflect a root *$neih_{1/3}$-*, as is usually stated, but must be reconstructed differently: active *nāi*, *$*niịanzi < *nh_1$-ói-ei*, *$*nh_1$-i-énti*; middle *nēa*, *nēanda* < *$*néh_1$-o*, *$*néh_1$-nto*. This means that also its Sanskrit cognate, *nī-*, must be reconstructed differently: present *náyati < *nh_1éi-e-*; participle *nītá- < *niHtá- < *nh_1i-tó-* (with laryngeal metathesis), perfect *nináya < *$ne-nh_1$ói-e*. The basic root of all these forms is *$*neh_1$-*, which is identical to the root *$(s)neh_1$-* that is usually translated as 'to spin'. But on the basis of this new connection with the Hittite and the Sanskrit verbs, we want to propose the following semantics of the root *$(s)neh_1$-*. When used intransitively (in the middle), its basic meaning was 'to turn oneself in a certain direction', when used transitively (in the active), its basic meaning was 'to turn someone/something in a certain direction' (both meanings are attested as such in Hittite). When the root had yarns or threads as its object, it meant 'to turn back and forth, to twist, to wind' (attested in Hittite and Old Irish). In some languages (notably the ones spoken in Europe) the meaning 'to twist yarns' developed into 'to spin' (Celtic,

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[21] For more Iranian forms see Cheung 2006:279.

Italic, Greek), whereas in Germanic the meaning 'to turn a thread back and forth' was specialized into 'to sew' (i.e. 'to turn back and forth the thread into a cloth') and in Latin into 'to weave' (i.e. 'to turn back and forth the warp thread into a weft'). The intensive derivative of this root, **ne-nh$_1$-oi-*, had the meaning 'to repeatedly turn back and forth' and was especially used with animals as its object and then denoted 'to lead an animal by constantly adjusting the direction in which it walks', i.e. 'to drive, to lead' (attested in Hittite and Indo-Iranian).

Abbreviations

EWAia = Mayrhofer, Manfred. 1986–2001. *Etymologisches Wörterbuch des Altindoari-schen*. 3 vols. Heidelberg: Winter.

HED = Puhvel, Jaan. 1984– . *Hittite Etymological Dictionary*. Berlin: de Gruyter.

LIV² = Rix, Helmut, ed. 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Reichert.

OED = Simpson, John, and Edmund Weiner, eds. 1989. *The Oxford English Dictionary*. 2nd ed. Oxford: Clarendon Press.

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