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## Hittite nasal presents

Shatskov, A.

### Citation

Shatskov, A. (2017, October 25). *Hittite nasal presents*. Retrieved from <https://hdl.handle.net/1887/58877>

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**Author:** Shatskov, A

**Title:** Hittite nasal presents

**Issue Date:** 2017-10-25

# Hittite nasal presents

## Proefschrift

ter verkrijging van

de graad van Doctor aan de Universiteit Leiden,

op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolker,

volgens besluit van het College voor Promoties

te verdedigen op 25 oktober 2017

klokke 15 uur

door

Andrey Shatskov

geboren te Leningrad

in 1979

Promotor: Prof. dr. A. Lubotsky

Copromotor: dr. A. Kloekhorst

Promotiecommissie: Prof. dr. N. Oettinger (Friedrich-Alexander-Universität  
Erlangen-Nürnberg)

Prof. dr. M. Kümmel (Friedrich-Schiller-Universität Jena)

Prof. dr. H. Gzella (Universiteit Leiden)

Dr. W. Waal (Universiteit Leiden)

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## Acknowledgements

My work on this Ph.D. thesis has lasted for a long time, and I am indebted to many people who have helped me in the process.

First of all, I would like to thank my promotor Prof. Dr. Alexander Lubotsky and co-promotor Dr. Alwin Kloekhorst, without whom I would not have been able to write this thesis. They have helped me in innumerable number of ways and made this promotion possible.

I am also very grateful to Alexander Nikolaev who has read my thesis and suggested quite a few improvements both in style and content.

An important part of my thesis is based on a detailed analysis of all the available forms of a certain group of Hittite verbs, and I am thankful to Prof. Dr. G. Wilhelm and Dr. S. Košak for the opportunity to visit the Mainz archive and look through the relevant forms. I am also thankful to Dr. Petra Goedegebuure who helped me to arrange my visit to Mainz. I was also lucky to attend her Hittite course while studying at the Leiden University.

A significant part of my research has been done in the NINO library, and I am grateful to this organization and its staff for an excellent working environment. I hope that the library will preserve its current status.

My research has greatly benefitted from discussions with my colleagues in Leiden and St. Petersburg, namely Michael Peyrot, Guus Kroonen, Tijmen Pronk, Lucien van Beek, Leonid Kulikov, Svetlana Kleiner and especially Petr Kocharov. I owe a lot of insights to them.

I am very much obliged to Prof. Dr. Nikolai Kazansky for his valuable comments and overall support and to Prof. Dr. Leonard Herzenberg, whose influence on my life and career cannot be overestimated; it was him who got me interested in Comparative Indo-European Linguistics and Hittite in particular. Unfortunately, Prof. Herzenberg is no longer among us but I know he would have been happy for me.

And, finally, I am very grateful to my family, especially to my wife Alla, for the unconditioned support and love through all these years.

## Abbreviations

Akk. Akkadian	OS Old script
aor. aorist	Pal. Palaic
Arm. Armenian	PIE Proto-Indo-European
Av. Avestan	Russ. Russian
Bret. Breton	Skt. Sanskrit
Bulg. Bulgarian	Sum. Sumerian
CLuw. Cuneiform Luwian	TochA Tocharian A
Goth. Gothic	TochAB Tocharian A and B
Gr. Greek	TochB Tocharian B
Hitt. Hittite	We. Welsh
HLuw. Hieroglyphic Luwian	
Hom. Homeric	
Hurr. Hurrian	
IE Indo-European	
Lat. Latin	
Latv. Latvian	
Lith. Lithuanian	
Luw. Luwian	
MH Middle Hittite	
MS Middle script	
NH New Hittite	
NS New script	
OCS Old Church Slavonic	
OE Old English	
OH Old Hittite	
OHG Old High German	
OIr. Old Irish	

## Introduction

**1.1** The reconstruction of the Proto-Indo-European verbal system is based to a great extent on Indo-Iranian and Greek data. These languages have a large number of categories; for instance, Greek has three voices – active, middle and passive, four moods – indicative, imperative, subjunctive and optative, seven tenses – present, imperfect, aorist, perfect, pluperfect, future and future perfect, three numbers – singular, dual and plural, and three persons. Some of these categories, for instance, passive and future, are post-PIE innovations, but most have at least formal correspondences in Indo-Iranian and in other IE branches. In Fortson's presentation of the PIE verbal system (2010: 88ff.), there are therefore four tenses – present, imperfect, aorist and perfect<sup>1</sup>, two voices – active and middle, four moods – indicative, imperative, subjunctive and optative as well as three numbers and three persons; cf. similarly Clackson 2007: 120ff. and slightly differently Beekes 2011: 282ff. This situation contrasts with the Hittite verbal system that has only two tenses – present and past, two moods – indicative and imperative, two voices – active and middle, two numbers – singular and plural, and three persons. A similar paucity of categories is also characteristic of other Anatolian languages. But it is not the simplicity of the verbal system that makes the Hittite verbal system special – there are other branches with few verbal categories, for instance, two tenses, three moods and virtually no voice distinction in Old English<sup>2</sup>.

**1.2** There are two principal specific features that do make Anatolian special. One of them is the Hittite *hi*-conjugation, which has no counterparts in other branches and is only partially preserved in the other Anatolian languages<sup>3</sup>.

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<sup>1</sup> Though he notes that nowadays the perfect is believed to originally have been a stative that turned into a resultative past tense.

<sup>2</sup> In Old English there were special optional constructions to express future or passive, but there were no specific syncretic forms, with the exception of *hätte* 'was called' and *hätton* 'were called'.

<sup>3</sup> The endings of the *hi*-conjugation are very likely to be related to those of the middle and the perfect, but the exact relation between these categories is unclear and it is debated whether or not the *hi*-conjugation goes back to the PIE perfect, see Jasanoff 2003: 7ff.



The second characteristic feature of Anatolian languages is the lack of tense-aspect stem differentiation in the verbal system<sup>4</sup>. Finite and infinite verbal forms in most other ancient IE languages were derived from one of the three temporal/aspectual stems – perfect, present and aorist, rather than immediately from the root. The perfect stem was marked by an *o*-grade in the singular and zero grade in the plural<sup>5</sup> and by reduplication, e.g., Gr. 1sg. perf. act. πέποιθα ‘to persuade’, PIE *\*b<sup>h</sup>eid<sup>h</sup>-*. Present and aorist athematic stems were marked by an *e*-grade in the singular and a zero grade in the plural, e.g., Gr. εἶμι (1sg. pres. act.) / ἴμεν (1pl. pres. act.) ‘to go’, PIE *\*h<sub>1</sub>ei-*. For an overview of PIE verbal stems see LIV: 14ff.

**1.3** These stems are generally well recognizable even despite significant restructurings that occurred in most branches after the collapse of PIE. For instance, in Latin PIE perfect and aorist stems merged into a new perfect, but it is often still possible to tell whether a specific Latin perfect stem goes back to a PIE perfect or aorist stem (thus, *ēmī* ‘I took’ goes back to the PIE perfect, while *dūxī* ‘I led’ goes back to the PIE aorist), see a detailed discussion in Meiser 2003. In Germanic, the aorist indicative stem was lost virtually without a trace<sup>6</sup>, but the I-V class strong verbs generally show *\*e* in the root in the present stem, reflecting the PIE present stem, e.g.,

<sup>4</sup> Melchert (1997: 84ff.) argued that *karp-* ‘to lift, pick up’ preserved both the PIE present stem with the suffix *\*-ye/o-* (*karpīye/a-*) and the PIE root aorist stem (*karp-*), with *karpīye/a-* attested mostly in present active and *karp-* elsewhere. However, there are also OS present forms like *kar-ap-zi* KBo 20.26+ II 24 and *kar-pa-an-zi* KBo 17.11+ 46, KBo 17.43 IV 7; in fact, due to the productivity of the suffix *-ye/a-* in Hittite the alleged distribution may be coincidental. In some cases, *ye/a-*-stems are used to distinguish active and middle stem, at least in Old Hittite, cf., e.g., middle stem *hatt-<sup>an</sup>* vs. active stem *hazziye/a-<sup>mi</sup>* ‘to pierce’. Melchert (ibid.) also mentions several verbs (*hark-* ‘to perish’, *istalk-* ‘to flatten’) that show the opposite distribution, i.e. with suffix *-ye/a-* marking the middle voice stem; however, due to the low number and late attestation of *ye/a-*-middle forms this could be easily just a coincidence. Note, however, that different verbal stems from several PIE roots indeed survived as distinct active and middle stems in Hittite, e.g., mid. *wess-* ‘to be dressed’ vs. active *wasse/a-*, later *wassiye/a-* ‘to put on smth., (causative) dress someone’ of *\*wes-* ‘to be dressed’.

As for *tarh-/tarhu-* ‘to be able, overcome’, and *lah/lahu-*, I believe that all the forms go back to a PIE *u*-present, see Kloekhorst 2008: 836ff. Forssman (1994) suggested that *sipant-* ‘to pour’ is actually a distinct stem from *ispant-* ‘id.’ and reflects PIE perfect, but this is not convincing, for different approaches cf., e.g., Kassian and Yakubovich 2002: 33ff. and Yakubovich 2009b who argue that the alternation *sipand-/ispand-* is graphic in OH and MH, and Melchert forthc. b who argues that *ispand-* is a late formation and only *sipand-* is of PIE origin, reflecting the PIE reduplicated aorist; nevertheless he also does not assume *sipand-/ispand-* to be reflexes of two different PIE verbal stems.

<sup>5</sup> As in οἶδα (1sg.) / ἴμεν (1pl.) ‘to know’, though most Greek verbs have given up the ablaut in the perfect stem; the *o*-grade/zero grade ablaut is still well seen in Indo-Iranian and Germanic.

<sup>6</sup> Nevertheless, some aorist subjunctives may have survived as present stems, see Ringe 2006: 160f.

Goth. *qiman*<sup>7</sup> ‘to come’ or Goth. *wairþan*, OE *weorþan* ‘to become’, while the singular past stem has an *\*o*-grade, reflecting the PIE perfect stem, e.g., Goth. *qam* ‘came’ or Goth. *warþ*, OE *wearþ* ‘became’. In Modern English, simple present *sit* and simple past *sat* ultimately go back to the same *\*e/\*o* ablaut, even though both stems must be post-PIE, see LIV: 513f., Ringe 2006: 157 and 151ff. for the general overview. Summing up, the verbal paradigms in all branches but Anatolian at least partially preserve the distinction of the present, aorist and perfect stems.

**1.4** In Hittite a verb may have several stems as well. As in other ancient IE languages, the singular stem may differ from the plural (most commonly it is the full grade of the root in the singular and the zero grade in the plural, e.g., *kuenzi* : *kunanzi* ‘to strike, kill’, cf. Skt. *hánti* : *ghnánti* ‘to strike, kill’, PIE *\*g<sup>wh</sup>en-*). However, in Hittite the same stem is used both for present and preterite forms<sup>8</sup>, cf. footnote 4 above; the imperfective aspect is marked with suffixes (*-ske/a-*, *-anna/i-* and *-ss(a)-* in Hittite) or reduplication<sup>9</sup>, and this situation is likely to be a post-PIE development. That is, derivation of different tenses from different stem allomorphs, one of the principal features of the PIE verbal system as reconstructed on the basis of Greek and Indo-Iranian, is missing in Hittite and Anatolian.

Several explanations have been proposed for the apparent absence of the PIE stem differentiation in Anatolian. It has been accounted for either as an archaism (e.g., Cowgill 1979: 33ff. and Strunk 1979: 258f.), which would imply that the Anatolian languages split off from PIE before the development of the present-aorist-perfect stem opposition, or as a simplification of the Graeco-Aryan model (e.g., Eichner 1975). Jasanoff (2003: 7ff.) argues against a straightforward deduction of the Anatolian

<sup>7</sup> Unless *qiman* is a post-PIE formation, cf. LIV: 210, notes 5a, 14

<sup>8</sup> Note though that most verbs with the ablaut in the present stem do not show it in the preterite, e.g., 3sg. pret. *kuenta*, 3pl. pret. *kuener*, s. Hoffner, Melchert 2008: 187.

Kümmel (2015) compared the *e*-grade in plural in the preterite of some Hittite verbs to the full grade in the 1<sup>st</sup> and 2<sup>nd</sup> pl. of the athematic root aorist in Indo-Iranian, further on this issue see, e.g., Watkins 1969: 32ff., Malzahn 2004. The ablaut patterns in Hittite preterite and Indo-Aryan athematic aorist are only partially similar: in Hittite the full grade in the preterite plural is not restricted only to the 1 and 2 person; besides, some *hi*-verbs also show this type of ablaut, and we find the *a*-grade (< *\*o*) in the preterite plural as well. Therefore, the similarity between Indo-Iranian and Hittite regarding the grade of the plural stem may well be fortuitous.

<sup>9</sup> See recently Dempsey 2015: 331.

system from the Graeco-Aryan model, while at the same time retaining the traditional reconstruction of present and aorist categories for PIE. The issue whether any Hittite verbs preserve reflexes of several different PIE verbal stems, e.g., of the PIE present and PIE aorist, stem remains disputed. Melchert (forthc.a. 35) notes that “at present one can neither affirm nor deny that development of a perfective/imperfective aspectual contrast is a common innovation of non-Anatolian Indo-European”; cf. also the discussion in Rieken 2009: 146, Oettinger 2013-14: 160ff.

**1.5** In most other aspects the Anatolian verbal system is quite similar to that of Greek, Indo-Iranian and Indo-European in general. The endings and affixes are the same as in other PIE languages; the endings of the Hittite *mi*-conjugation and middle voice are well compatible with their counterparts in other IE languages. Hittite stem-affixes also generally find good correspondences in other branches, including reflexes of the suffixes *\*-ye/o-*, *\*-ske/o-* (for the reconstruction of this suffix with a plain velar, see Lubotsky 2001) or *\*-neu/nu-*. Reduplication and infixation are employed in Anatolian just as in other ancient IE languages. The difference is that in Hittite, in contrast to, e.g., Sanskrit, an infixed or a reduplicated formation, like *harnink-* ‘to destroy’ or *wewakk-* ‘to demand, ask’, is not restricted to a certain tense but is a distinct verb with a full paradigm of its own.

Therefore, a Hittite verb has to be compared with a specific stem of the cognate Greek or Indo-Aryan verb rather than with an entire verb with its several tense-aspect stems. For instance, some *mi*-verbs with the suffix *-ye/a-* can be compared to PIE present stems in *\*-ye/o-*, e.g., *siye/a-<sup>zi</sup>* ‘to shoot’ is compared to Skt. present stem *áśya-* (3sg. *áśyati* ‘shoots’), whereas the aorist stem of the same verb in Sanskrit is *as-* without *\*-ye/o-* (3 pl. inj. (*vī*) *asan*). This also means that different stems of a PIE root may show up as different verbs in Hittite, e.g., *te-<sup>zi</sup>* ‘to speak’ and *dai-<sup>i</sup>* ‘to put’ that both go back to the root *\*d<sup>h</sup>eh<sub>1</sub>-* ‘to put’.

In the *Lexikon der indogermanischen Verben* (further LIV), which lists all stems that can be reconstructed for each verbal root, there are ca. 210 Hittite verbs<sup>10</sup>, and each Hittite verb is listed under a certain PIE stem; for example, *siye/a*-<sup>zi</sup> ‘to shoot’ is listed as a reflex of the PIE \*-ye/o- present of the root \**h<sub>1</sub>es-* ‘to shoot’, *wess-* and *wasse-* are given as a stative present and a causative respectively of the root \**wes-* ‘to be dressed’, while *te-* and *dai-* are interpreted as reflexes of a root aorist and perhaps of a reduplicated present made from the root \**d<sup>h</sup>eh<sub>1</sub>-* ‘to put’.

**1.6.1** However, in many cases attribution of a Hittite verb to a certain PIE stem is not beyond doubt. According to LIV, p.33, Hittite verbs continue PIE root aorists, 29 Hittite verbs are the reflexes of PIE root presents, and 21 verbs are former perfects. Since Hittite verb lacks tense stem alternation and thus provides no indication whether it is a former present or aorist, the attribution in LIV is based on the stems attested for this root in other Indo-European languages. In the case of alleged Hittite reflexes of perfects, reduplication is generally missing in Hittite<sup>11</sup>, and the usual reason for attributing a Hittite verb to a PIE perfect stem is its *hi*-conjugation and *a*-vocalism (< PIE \**o*) of the root. In fact, all these equations are essentially root comparisons. This is true also for the 11 Hittite verbs that, according to LIV, continue present stative stems that are in fact root presents with stative endings and either zero grade or full grade of the root (types 1c (e.g., *ur*-<sup>āri</sup> ‘to burn’, PIE \**werH-*) and 1d (e.g., *wess*-<sup>ita</sup> ‘to be dressed’, PIE \**wes-*) respectively in LIV: 15)<sup>12</sup>.

**1.6.2** Among the extended (suffixed) stems, the most numerous type in Hittite, according to LIV, are the reflexes of PIE \*-ye/o-present. However, out of the 18 verbs listed in LIV, two verbs (*parai/i-* ‘to blow’ and *sai/i-* ‘to impress, shoot’) belong to the *-ai/i-* type rather than *-ye/a-* type, and 9 more verbs do not have \*-ye/o-counterparts in

<sup>10</sup> I did not count verbs in *-iye/a-* and *-ske/a-* as separate verbs, if there already is a related stem without these suffixes, i.e. I counted *dai-* and *zikke-* ‘to put’ as a single verb, even though they continue different PIE stems according to LIV.

<sup>11</sup> From this list only *mēma/i-* ‘to speak’ has reduplication, but its derivation from the root \**men-* ‘to think’ is not obvious. On *sipand-/ispant-* see footnote 4. Other Hittite verbs with reduplication are listed in LIV as PIE reduplicated presents.

<sup>12</sup> All three alleged Hittite reflexes of the zero-grade statives (*miya-* ‘to grow’, *dukk-* ‘to be seen, important’, *ur-* ‘to burn (intr.)’ and 4 out of 8 full-grade statives (*ā(i)/i-* ‘to be hot’, *happ-* ‘to arrange itself’, *kis-* ‘to occur, become’, *zē-* ‘to cook (intr.)’, be ready’) do not have any comparable stative stems in other IE languages.

other Indo-European languages. The interpretation and/or derivational analysis of 5 further verbs from this list is controversial<sup>13</sup>. In my opinion, the only somewhat reliable correspondences between Hittite verbs with the suffix *\*-ye/o-* and verbal stems in non-Anatolian Indo-European languages proposed in LIV are *siye/a-* ‘to shoot’ with Skt. *ásyati* ‘shoots’ and *tāye/a-* ‘to steal’ with Skt. *stāyāt* ‘secretly’, a fossilized form of the participle according to Rix 1985: 205.

**1.6.3** Similarly, according to LIV, eleven Hittite verbs go back to PIE reduplicated presents, but either the etymology of these verbs is controversial or they do not have reduplication in Hittite<sup>14</sup>.

**1.6.4** There are several Hittite verbs with a stem-final *-(s)s-* that etymologically does not belong to the root (e.g., *tamāss-* ‘to oppress’, PIE *\*demh<sub>2</sub>-*). In LIV, these verbs are listed either as *s*-aorists or desideratives. Jasanoff (2003: 119<sup>70</sup>) and Kloekhorst (2009: 250) argued, however, that (most of) these verbs are originally *s*-presents<sup>15</sup>. Whatever the function of *-s-* in these verbs might have been, it cannot be determined on the basis of the Hittite evidence alone.

<sup>13</sup> The very existence of *tiye/a-* ‘to bind’ (2sg.imp.act. *ti-ya* in KBo 3.40+ rev. 13, 14, 15) is questionable, as it is attested only once in a rather unclear context – KBo 3.40 rev. 13 *nu=zza ishamašskezzi* (*ishamiskanzi* in dupl. KBo 13.78) <sup>URU</sup>Ne[sas]<sup>KI</sup> TÚG<sup>H</sup>]IA <sup>URU</sup>Nesas<sup>KI</sup> *tiya=mmu tiya* (14) *nu=mmu annas=mas katta arnut tiya=[mmu t]iya nu=mmu uwaw=mas katta arnut* (15) *[tiy]a=mmu [t]iya*. Melchert (1986: 102) translates this as follows: “One sings (dupl. they sing): “Clothes of Nesa, clothes of Nesa, bind on me, bind! Those of my mother bring down to me, bind (them) on me, bind! Those of my *uwa-* bring down to me, bind (them) on me, bind!” and argues further that *uwa-* means ‘nurse’. The verb *sakiye/a-* ‘to give a sign’ may be a denominative; ἐπέω ‘to ask’, the alleged Greek *\*-ye/o-* cognate for Hitt. *ariye/a-* ‘to consult an oracle’, is not related according to Beekes 2010: 391f.; the meaning of *sarhie/a-* ‘to press?’ or ‘to maul?’ (CHD Š: 252) is not clear and it is not necessarily related to Gr. ῥώομαι ‘to move intensively, dance’; finally, given the productivity of the *-ye/a-* suffix in Hittite, *parkiye/a-* ‘to raise, rise’ is likely to be an inner-Hittite derivative from *park-* ‘id.’; it may well be that most *-ye/a-* stems in Hittite are recent formations.

<sup>14</sup> Thus, *dai-* ‘to put’, *malla-* ‘to grind’ and *ishuwai-* ‘to throw, scatter’ are not reduplicated; *eku-* ‘to drink’ could be reduplicated, but there are other interpretations of the spelling *e-ku-*, cf. HED 1/2: 267f. and Kloekhorst 2014: 168ff.; *kikkis-* ‘to become’ and *pappars-* ‘to sprinkle’ have no reduplicated counterparts elsewhere. Hitt. *iyawa-* ‘to be healed?’ and Lat. *iuvō* ‘to help’ may be related; however, the meaning of the Hittite verb is in fact not clear (see HW<sup>2</sup> I: 33), and Lat. *iuvō* is likely to be cognate rather to Hitt. *huwai-* ‘to run’, see García Ramón 2016: 95 and the entry for *huinu-* in 4.1 below. The reduplicated stem *kukus-* ‘to taste?’ was compared by Watkins (2003: 391) to Skt. *jujōṣa* (perf.) ‘likes’ and Avestan *ā-zūzušte* (pres.) ‘is joyful (about smth.)’; Dempsey (2015: 266), however, assumes that *kukus-* is best explained as a pre-Hittite formation. As for the remaining verbs, their etymology is controversial, cf. the entries for *mimma-* ‘to refuse’, *pippa-* ‘to fell, drop’ and *wewakk-* ‘to demand’ in Kloekhorst 2008 and Dempsey 2015.

<sup>15</sup> According to Jasanoff (2003: 119), the traces of *s*-aorist in Hittite are 3 sg. pret. ending *-s* < *\*-s-t*, and *-s-* in the imperative forms like 2sg. mid. *neshut* and 2 pl. mid. *naisdumat* of the verb *nē-<sup>a(ri)</sup>*, *nai-<sup>hhi</sup>* ‘to turn, send’.

**1.7** While scholars may disagree with LIV on numerous details, this short survey shows that the attribution of a Hittite verb to a PIE stem is a complicated issue. In this light, nasal (infix) presents are perhaps the best candidates for a study of Hittite reflexes of a PIE verbal type. On the one hand, they are relatively numerous and have some undisputable cognates in other languages, such as *tarna-* ‘to let, allow’ (TochA *tärk-*, pres. *tärnā-* ‘to emit’) and *tamink-* ‘to attach’ (Skt. *tanakti* ‘to contract’ < \**tṃnékti*); on the other hand, unlike, e.g., \*-ye/o- stems, they were definitely not productive in the attested period of Hittite. Finally, the nasal-infixed stems, being distinct verbs in Hittite rather than a part of a paradigm, appear to have a distinct meaning of their own, therefore the semantics of these formations can be studied as well. In the present work I intend to examine two topics: (1) what are the characteristic features of the Hittite infixed verbs and the related type of *nu*-verbs, and (2) to what extent are they compatible with nasal stems in other IE languages?

**1.8** In some language families infixation is a common morphological process. For instance, in Semitic, where in Akkadian the perfect tense is formed with a bound morpheme *-ta-* inserted after the first consonant of the root, while other infixes mark reflexive and iterative stems. In Indo-European, however, we only know of one such infix, namely the verbal infix \*-né/n-, which was inserted before the last consonant of the root<sup>16</sup> and appeared in the present stem, cf. Skt. pres. 3sg. *yunákti* : 3pl. *yuñjánti* and aor. *áyuji* ‘to yoke, join’, and Lat. *iungō*, *iunxi*, *junctum*, *iungere* ‘to harness, join’ (in the Latin verb the infix was generalized throughout the paradigm). The origin of the infix is still debated; I follow Milizia (2004) in that the infix /n/ is a former suffix, which entered the root via metathesis or prenasalization (\*-Cn- > \*-nCn-) with the subsequent dissimilation (\*-nCn- > \*-nC-), as in Lat. *pandō* ‘to spread’ < \**pt-né/n-h<sub>2</sub>-*,

<sup>16</sup> Note that Strunk (1973: 67) argued that the position of infix was conditioned by the structure of the root aorist, from which the nasal presents were derived. According to Strunk, in the PIE roots of the type *CRéC* the infix was inserted before the accented vowel, *CRnéC*, while in the roots of the type *CéRC* it was inserted before the final consonant, *CéRnC-*. It contradicts the Indo-Iranian data which Strunk believes to be reshaped – the infixed stems of the type *CéRnC-* were remodeled after the type *CRnéC-*. However, since in other branches the infixed stems usually generalized the weak grade, *CRnC-*, this assumption is difficult to prove.

cf. de Vaan 2008: 442. In the late PIE, however, it must have been an established way of making present stems, see, e.g., LIV: 17.

**1.9** Hittite nasal verbs have already been treated in monograph chapters by Oettinger (1979) and Kloekhorst (2008), as well as in several articles (e.g., van Brock 1962, Eichner 1982, Puhvel 1987, Luraghi 2010, Bader 1979 and 1987). However, a detailed and focused study of all the relevant verbs is still missing.

One of the immediate tasks of the present study is to establish the number of infix verbs. The problem is that infix verbs, with the exception of 5 verbs with the infix *-nin-*, do not form a distinct class (or classes) in Hittite. They are independent lexemes, and when there is no infixless counterpart, it is not always possible to tell apart an infix verb and a verb with a radical *-n-*. Semantically, the infix verbs are often simply transitives in Hittite. For these reasons we often have to rely on comparative data to reveal the internal structure of a verb, and many verbs are believed to contain an infix solely on the basis of their etymology, which sometimes is very uncertain.

**1.10** I have tried to include as many attestations of the relevant verbs as possible. Still, some verbs are presented less thoroughly, since many dictionaries have yet to cover letters like T, U, W, Z, and those that do (Friedrich, Kloekhorst, Tischler), do not always give a full set of forms. I was able to check all the *nin*-verbs in the Mainz archives in 2005 (for this opportunity I am very grateful to G. Wilhelm and S. Košak). As for the other verbs, like *zinni-*, I have to rely on published sources, so my files are admittedly incomplete. I do not give all the available forms for some very common verbs like *asnu-* and *arnu-*. However, I always cite an OS attestation if there is one.

**1.11** The datings for the texts are mainly based on the data from the Mainz portal, while for the age of the original text I consulted the Hittite Dictionary of the University of Chicago and relevant editions. In case of discrepancies, I used the most recent dating available to me.

**1.12** The relevant verbs are discussed in the first 4 chapters. The first two chapters deal with infixed verbs made from roots ending in a velar and from roots ending in a laryngeal. The third chapter covers a related type of *nu*-verbs. (Since this type was very productive, this chapter is also the longer one.) Then there follows a chapter on the suffix *-anna/anni-*, one of the markers of an imperfective aspect in Hittite; etymologically it can be compared to some infixed formations in Sanskrit. Finally, there are two chapters on the formal and semantic properties of the Hittite nasal stems and their relation to nasal-infixed stems, attested in other IE languages.

**1.13** When discussing etymologies, for the sake of convenience I use the conventional voiced and voiceless signs for stops in proto-Hittite or proto-Anatolian reconstructions; the actual phonological distinction between stops, written single and double in intervocalic position could well be short : long rather than voiced : voiceless.

**1.14** Again, for the sake of convenience I use the traditional terms Cuneiform Luwian and Hieroglyphic Luwian, even though Yakubovich convincingly argues (2009) that the distinction is rather between Kizzuwatna and Hattusa Luwian dialects.

**1.15** I transliterate Hittite cuneiform signs according to Rüster, Neu 1989, with the only exception: following Kloekhorst 2008: 4<sup>5</sup>, I sometimes transliterate *-nir-* as *-ner-*, *-kir-* as *-ker-* and *-kit<sub>9</sub>-* as *-ket<sub>9</sub>-*. In the broad transcription I use *-s-* instead of *-š-*, since in Hittite this sibilant was denti-alveolar [s] rather than alveo-palatal [ʃ], see Patri 2009: 109f. I also use *h* instead of *ḫ*, since the exact pronunciation of this fricative in Hittite is not clear; most likely it was an uvular fricative, see Weiss 2016.



## Infixes verbs to roots ending in a velar

**2.0** In Hittite, the *n*-infix is attested only in the roots ending in a velar or in a laryngeal. In this chapter I will focus on the roots ending in a velar; first I will discuss the verbs with the infix *-ni(n)-* and then the verbs where the infix takes forms other than *-ni(n)-*.

**2.1.1** There is a group of Hittite verbs where an infix *-ni(n)-* can be clearly distinguished, as there are cognate verbs with and without this infix – *harni(n)k-* ‘to destroy’ : *hark-* ‘to perish’, *huni(n)k-* ‘to batter, crack’ : *huek-* ‘to slaughter’, *istarni(n)k-* ‘to make ill’ : *istark-* ‘to ail’. Two more verbs, *ninink-* ‘to mobilize, set in motion’ and *sarnink-* ‘to compensate, exchange’, belong to this type as well; while it is disputed whether they have infixless cognates in Hittite, the infix in these verbs is confirmed by their conjugation type and their etymologies, see the respective entries below in 2.2. The alleged verb *hini(n)k-*, which is also said to belong here, does not exist, see Shatskov 2010 and the entry for *hink-* in 2.3.

**2.1.2** The infix is attested in two variants, *-ni-* and *-nin-*, cf. the paradigm of the verb *harni(n)k-*:

Pres.		Pret.	
Sg.	Pl.	Sg.	Pl.
1 <i>harnikmi</i>	( <i>sarninkweni</i> )	<i>harninkun</i>	( <i>istarninkwen</i> )
2 <i>harniksi</i>	<i>harnikteni</i>	<i>harnikta</i>	<i>harnikten</i>
3 <i>harnikzi</i>	<i>harninkanzi</i>	<i>harnikta</i>	<i>harninker</i>
Ptc. <i>harninkant-</i>			

The spelling of the infix is fairly consistent, though the second /n/ of the infix can sometimes be omitted, e.g., *ḫu-u-ni-kán-za* KBo 6.2 I 15 OS, *ḫar-ni-ku-un* KBo 2.5a II 6 NH or *ni-ni-kán-zi* KUB 18.15 rev. 7 NH. Similar “defective” spellings are attested

for other verbs with *-nC-* in root-*auslaut*, e.g., *li-ku-wa-an-ni*<sup>17</sup> KUB 9.31 I 42 (MH/NS) for *link-* ‘to swear’ and *ša-aḥ-ḥu-un* KBo 5.9 I 20 (NH) for *sanh-* ‘to seek’, so this phenomenon is not restricted to the *nin*-verbs, see Hoffner, Melchert 2008: 46.

The variant *-ni-* is attested in the singular of both present and preterite, while *-nin-* is more common in the plural. There are, however, certain forms that show that the alteration *-ni-/nin-* is not solely determined by singular vs. plural – there is *-nin-* in 1sg. pret. and *-ni-* in 2pl. pres. and pret. In the imperfectives and derivatives, the infix is usually spelled *-nin-*, e.g., *istarningai-* ‘ailment’, with two apparent exceptions: *sarnikzel-* ‘compensation’ and a verbal noun *ḥu-[u-]ni-ki-iš-ša-[ar]* KBo 1.51 rev. 15.

It is immediately clear from the table above that three-consonantal clusters of the shape *-nkC-* (with the exception of */nkw/*, on which see 2.1.5) are missing. In contrast, the verbs with stems ending in *-nk-* and *-nh-*, such as *lenk-* ‘to swear’, *hink-* ‘to grant’, *hink-* ‘to bow’, *hamank-* ‘to bind’, *nenk-* ‘to drink one’s fill, get drunk’, as well as *sanh-*<sup>18</sup> ‘to seek, clean’ and *unh-* ‘to empty’, often have forms with both *-VnCC-* and *-VCC-* spellings, e.g., 3sg. pres. act. *li-ik-zi* KBo 6.2 IV 3 OS and *li-in-ga-zi* KBo 6.3 III 75 OH/NS. Note that there is a diachronic distribution of these spellings, with *li-ik-zi* being older than *li-in-ga-zi*, see below in 2.1.4.

**2.1.3** This peculiar type of Hittite verbs is usually compared to Skt. 7<sup>th</sup> class presents, which also have a nasal infix *-ná:-n-*, going back to PIE *\*-né-* : *-n-*. Cf. the conjugation of the verb *yuj-* ‘to yoke, join’ in the present active:

Sg.	Pl.
1 <i>yunájmi</i>	<i>yuñjmás</i>
2 <i>yunákṣi</i>	* <i>yuñktá</i>
3 <i>yunákti</i>	<i>yuñjánti</i>

The shape and unique way of derivation of Hittite and Indo-Iranian infixed stems leaves little doubt that they are related. Even though the Hittite the pattern *-ni-* : *-nin-*

<sup>17</sup> Here we find also a very unusual 1pl. ending *-wanni* with double *-nn-*.

<sup>18</sup> The forms are presented according to CHD; the issue whether there were two homonymous verbs *sanh-* is not to be discussed here; for the problem cf. Puhvel 1979: 299ff., CHD Š: 171.

does not fully match the Indo-Aryan alternation *-ná/-n-* (< PIE *\*-né/-n-*), it is still tempting to connect the Hittite forms of the infix with the Indo-Aryan ones, and quite a few researchers have suggested that Hittite *-ni/-nin-* goes back to PIE *\*-né/-n-*. If so, *sarnik-/sarnink-* is supposed to continue PIE 3sg. *\*sṛ-né-k-ti* : 3pl. *\*sṛ-n-k-énti*. The first one to suggest this was Benveniste, who claimed that the spelling *-ni-in-* in, e.g., *šar-ni-in-kán-zi* reflects a secondarily syllabic /n/ between consonants (Benveniste 1932 : 161f.). This point of view was further supported by Puhvel (1960: 25-6) and Watkins (1969: 34). Kuryłowicz (1958: 220-1) explained this spelling, very unusual for a syllabic nasal, as an attempt to make the paradigm more uniform.

Alternatively it has been proposed that the infix in Pre-Hittite was an invariable /nin/, with a regular omission of the second /n/ before consonantal clusters /kC/, caused by the difficulties in graphic representation of such clusters in cuneiform, cf., e.g., Pedersen 1938: 145, Sturtevant 1951: 127, Kronasser 1966: 435-7, Lindeman 1976: 115-6 and Strunk 1973: 59. Note that the cluster /nkw/ preserved in 1pl. pres. and pret., e.g., *iš-tar-ni-in-ku-en* KUB 3.45 obv. 4 or *šar-ni-in-ku-e-ni* KUB 22.57 obv. 4, was the only kind of cluster that could be written without graphic vowels. Strunk (ibid.) also pointed to the form of 1sg. pret.: if *-ni/nin-* reflected the original PIE ablaut with *-ni-* < *\*-né-* in the singular, then *har-ni-ku-un* would be the expected outcome. Such a spelling is, however, attested only once in a New Hittite text, and is likely to be a scribal error, cf. 2.1.8 below; the regular forms are *har-ni-in-ku-un*, *ni-ni-in-ku-un* etc. Therefore the Hittite infix differs from the Indo-Aryan not only in its shape but also in distribution<sup>19</sup>. Under this theory the derivation of Hittite *-ni/-nin-* immediately from PIE *\*-né/-n-* would be impossible.

The problem with the latter proposal is that the three-consonantal clusters of the shape *-nkC-* were often fully spelled in some other verbs, e.g., 3sg. pret. *ha-ma-na-ak-ta* and *ha-ma-an-kat-ta* along with *ha-ma-ak-ta* for *hamank-* ‘to bind’, as Viredaz (1976: 168f.) and Hart (1977: 134f.) have shown. Since the cluster /nkC/ was often

<sup>19</sup> Besides 1sg. pret. there is also a rare *hi*-conjugation form 3sg. pret. *ni-ni-in-ga-aš* KUB 53.15 IV! 30 with *-nin-* instead of *-ni-*, expected in the singular under this theory.

spelled with an additional graphic vowel in other words, the second /n/ in the presumed infix /nin/ did not have to be necessarily omitted in writing.

In order to solve this puzzle, Hart (1977: 138) and Oettinger (1994: 320f.) proceed from a generalized full grade *\*-ne-*, which is preserved in some forms as /ni/, while in other forms it developed into /nin/ due to a certain process. Hart describes it as an insertion of /n/ before /k/ in a sequence *nasal - vowel - k - vowel* and adduces some examples like *za-ma-an-kur* ‘beard’ as compared to Instr. *za-ma-kur-te-et*<sup>20</sup> or *tu-ni-ik*, G.Sg. *tu-ni-in-ga-aš*, a kind of bread<sup>21</sup>. Oettinger (ibid.) objects that this approach cannot explain the regularity of *-nin-* in certain forms. He points out that *-nin-* occurs in those forms where we also have an *-n-* in the ending or the suffix (e.g., 1pl. pres. *-wani*, 3pl. pret. *-anzi*, 1sg. pret. *-un*, participial suffix *-ant-*). However, there are several counterexamples to Oettinger’s suggestion, such as *-ni-* used in 2pl. pres. *-teni* (*harnikteni*) or generalized *-nin-* in some derivatives, (e.g., imperfectives in *-ske/a-* or *istarningai-*).

In sum, the variation *-ni-/nin-* cannot reflect an original *\*-né-/n-* ablaut, but it cannot be due to alleged impossibility to spell the second *-n-* of *-nin-* before two consonants either.

**2.1.4** As I argued in Shatskov 2006, the solution to this problem seems to be the diachronic distribution of the *-nCC-* spellings. Forms without /n/, e.g., *li-ik-ta*, are attested throughout the history of the Hittite language whereas forms containing /n/, e.g., *li-in-ik-ta*, appear first in the Middle Hittite period. The only exceptions are *ga-a-an-ga-aḫ-ḫi* KBo 17.1 IV 17 (OS) and *ga-a-an-ga-aḫ-ḫé* KBo 17.3 IV 13 (OS), cf. Kimball 1999: 115. However, A. Kassian pointed out to me that the spelling *-Vk-ḫV-* is extremely rare. I know of only two examples – a likely loanword *šu-ú-up-ḫa-ak-ḫi-il* (KBo 25.121 I 7 OS) and *ša-ak-ḫi* (KUB 30.10 obv. 10 OH/MS). It shall be noted that in all the other instances the latter form is spelled as *ša-a-aq-qa-a[ḫ-ḫi]* (OH/MS), *ša-*

<sup>20</sup> The *-n-* in this word is etymologically unexpected, cf. Skt. *śmāśru-* ‘beard, moustache’ < *\*sme/okru-*.

<sup>21</sup> This phenomenon is relatively common in Hittite, though it is not a regular process, s. Melchert 1994: 171ff., Kimball 1999: 318f., cf. Carter 1977/78, Justeson, Stephens 1981, Oettinger 1994. In most examples of nasal perseveration, *-n-* appears before a dental. However, we must keep in mind that not all of these verbs have a satisfactory etymology, so in some cases this *-n-* may be original.

*ag-ga-aḥ-ḥi*, *ša-ga-aḥ-ḥi*, *ša-aq-qa-aḥ-ḥi* and *ša-a-ag-ga-aḥ-ḥi*, cf. CHD Š: 21f. It seems that the cluster *-kh-* is avoided in Hittite, most probably due to difficulty in pronunciation, and in case of *ga-a-an-ga-aḥ-ḥé* and *ga-a-an-ga-aḥ-ḥi* there was an anaptyctic vowel inserted. Cf. the New Hittite form *ga-an-ga-i* (KUB 7.60 II 6) that shows an extended stem *kanka-* (type II 2 a in Oettinger's classification, cf. Oettinger 1979: 420).

Kloekhorst proposes an alternative explanation for preservation of *-n-* in *ga-a-an-ga-aḥ-ḥé* and *ga-a-an-ga-aḥ-ḥi*. He argues that in a *\*VnKC* cluster /n/ was dropped after all vowels except *ā* (Kloekhorst 2008: 87, cf. also p. 437). But this assumption is based on just these two OS forms (*ga-a-an-ga-aḥ-ḥi* KBo 17.1 IV 17 and *ga-a-an-ga-aḥ-ḥé* KBo 17.3 IV 13), while the tendency to avoid *-kh-* clusters is certainly there. For example, there is only one instance of *ša-ak-ḥi* as opposed to numerous spellings like *ša-ag-ga-aḥ-ḥi*, *ša-aq-qa-aḥ-ḥi* or *ša-ag-ga-aḥ-ḥu-un*. These can hardly be merely alternative spellings, as the forms of *sākk-/sakk-* with the consonant cluster /kt/ are always spelled without a graphic vowel between them, cf. 2sg. pres. act. *ša-(a-)ak-ti* (never *\*\*ša-ag-ga-at-ti* or sim.) or 3sg. pret. act. *ša-(a-)ak-ta* (never *\*\*ša-ag-ga-at-ta* or sim.). For this reason I assume that there was a real anaptyctic vowel inserted between *-g-* and *-h-*.

All the other relevant Old Script forms show lack of *-n-* in this context: *li-ik-zi* KBo 6.2 IV 3, *ša-aḥ-zi* KBo 22.1 obv. 17, *li-ik-ta* KBo 9.73 obv. 2, *sa-aḥ-ta* KUB 43.33 obv. 4, 5, *ḥa-ik-t[(a-ri)]* KUB 36.100 + KBo 7.14 obv. 19, *ḥé-ek-ta* KBo 20.10 I 4-6, 10, *ni-i-ik* KUB 43.31 left col. 6, *ša-aḥ-te-[-ni?]* KBo 16.45 obv. 6<sup>22</sup>

Similar spellings from later periods usually occur in Middle Hittite originals or texts copied from Old Hittite and Middle Hittite originals<sup>23</sup>. Therefore, *-n-* is never

<sup>22</sup> The HPM dating for KBo 9.73 and KUB 43.33 is Old Hittite or Middle Hittite. KBo 16.45 is Middle Hittite according to CHD.

<sup>23</sup> They are as follows: *ḥa-ma-ak-mi* KUB 50.89 NH (CTH 578); *ḥa-ma-ak-zi* KBo 13.109 MH/NS, KUB 24.9 MH/NS; *ḥa-mi-ik-ta* KBo 3.8 OH/NS, KBo 22.128 OH/NS, *ḥa-ma-ak-ta* KBo 55.179 NS, KUB 26.91 NH (CTH 183), KUB 51.33 NS, Bo 7248 n/a (CTH 670); *ḥa-am-ma-ak-ta* KUB 38.23 NS; *ḥa-mi-ik* KBo 22.128 OH/NS; *ḥa-mi-ik-ta-at* KBo 3.8 OH/NS, KBo 22.128 OH/NS; *ḥi-ik-mi* KBo 22.118 OH/NS, KUB 33.27 OH/MS; *ḥi-ik-zi* KBo 2.3 MH/NS, KBo 17.88 OH/MS, KBo 22.117 NS (CTH 470), KBo 22.189 Tudh. IV, KBo 23.91 OH/MS, KBo 39.8 MH/MS, KUB 9.28 MH/NS, KUB 17.18 NS (CTH 448), KUB 35.54 MS, KUB 35.58 NS (CTH 760), IBoT 1.36 MH/MS, Bo 4530 n/a (CTH 448); *ḥi-ik-ta* KBo 16.82 MS, KBo 20.74 MS, KBo 21.13 NS (CTH 449), KBo 27.37 NS (CTH 670), KBo 30.57 MS, KUB 58.48 (OH/NS); *ḥa-ik-ta* KBo 23.91 MS, KUB 57.26 OH/NS; *ḥa-ik-ta-ri* KUB 36.101 OH/NS; *ki-ik-zi* KUB 12.5 MH/MS; *li-ik-zi* KBo 3.29 OH/NS, KUB 7.1 OH/NS, KUB 36.127 MH/NS, KUB 40.88 NH (CTH 294); *li-ik-ta* KUB 14.1 MH/MS,

spelled in front of consonant clusters other than *-kw-* in Old Hittite, and spellings with *-n-* were first introduced in the Middle Hittite.

**2.1.5** There are two possible explanations for the omission of /n/ in these verbs where it belonged to the root rather than the infix, like *sanh-* ‘to seek’ and *nink-* ‘to quench one’s thirst, get drunk’<sup>24</sup> – it could either be graphic or it could reflect certain phonetic developments.

One could argue that /n/ (or rather its allophone /ŋ/<sup>25</sup>) was graphically omitted in front of two consonants by Old Hittite scribes, and then started to be spelled in this environment in Middle Hittite (so Kimball 1999: 97). If so, spellings like 3sg. *\*\*har-ni-in-ik-zi* would be expected to appear in Middle and New Hittite texts. This is, however, not the case, and the infix is regularly spelled *-ni-* before consonantal clusters (with the exception of *-kw-*) in all periods of Hittite. Under this theory, the odd distribution of *-ni-* and *-nin-* (see above 2.1.2-3) is yet to be accounted for.

In Shatskov 2006, I argued for a Proto-Hittite/Old Hittite phonetic process that caused loss of /n/ before consonant clusters; later, in Middle Hittite, /n/ was restored analogically<sup>26</sup> in most verbs ending in *-nk-*, but not in the *-nin-*verbs. The preservation of /n/ before /kw/ in Old Hittite in contrast with its loss before /kt/, /ks/ or /kts/ can be explained as follows: the cluster /kw/ was allowed in the onset of a syllable, and therefore syllabification in 1pl. *harninkweni* and 3sg *harnikzi* was different. This solution entails that the infix had only one shape – /nin/; the variant /ni/ resulted from a regular loss of /n/ before most consonant clusters.

**2.1.6** The reconstructed shape of the infix for PIE is *\*-né-/n-*. The shape of the Hittite infix cannot reflect the zero grade /n/ and must be based on the PIE singular

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KUB 26.32 NH (CTH 124); *li-i-ik* KBo 4.14 Tudh. IV; *li-ik-du* KBo 4.14 Tudh. IV; *li-ik-te-en* KBo 16.27 MH/MS; *le-e-ek-te-en* KBo 59.183 OH/NS; *ša-aḥ-mi* KBo 17.61 MH/MS; *ša-aḥ-zi* KBo 24.1 MH/MS, KUB 24.6 MS, KUB 33.27 (*ša-aḥ[-zi]*) MS, KUB 41.4 NS (CTH 435), KBo 55.84 NS (CTH 470); *ša-aḥ-ta* KUB 33.10 OH/MS, KUB 33.5 OH/NS, KUB 7.8 MH/NS, KBo 3.8 OH/NS; *ša-a-aḥ* KUB 17.10 OH/NS; *ša-aḥ-du* KUB 7.41 MH/NS, KBo 3.8 MH/NS; *ša-a-aḥ-te-en* KUB 29.1; *ta-me-ek-zi* KUB 23.1 Tudh. IV; *u-uḥ-zi* KBo 40.343 MS, *u-uḥ-ta* KUB 31.77 NH (CTH 384).

<sup>24</sup> In some relevant verbs like *hamank-* ‘to bind’, *link-* ‘to swear’ or *unh-* ‘to clean’, *-n-* may have etymologically been an infix, but synchronically it was not perceived as such and was reanalyzed as part of the root.

<sup>25</sup> According to Kimball (1999: 157, 315f.), /n/ in position before a velar was pronounced as /ŋ/.

<sup>26</sup> Perhaps in order to maintain the uniformity of the root or in parallel to the ‘etymological restoration’ of /n/ in clitics before /m/ and /s/ in Middle Hittite, for which see Kimball 1999: 324, 333.

\*-né-. The vowel *-i-* of the infix is regular, since *\*e > i* <sub>/nK</sub> (e.g., Melchert 1994: 101, Kloekhorst 2008: 96, for a similar development in, e.g., Latin and English, see Sihler 1995: 39<sup>27</sup>), and in all the verbs, *-nin-* is inserted before the root final velar. The consistent spelling of *-i-* in the forms with *-ni-* (*ḥar-ni-ik-zi*, *ḥar-ni-ik-ta*) is best explained by assuming a loss of /n/ before consonantal clusters in *\*harninktsi*, *\*harninkta*.

**2.1.7** The origin of the second /n/ in *-nin-* is obscure<sup>28</sup>. One of the available explanations is some kind of nasal anticipation/perseveration (so Hart 1977: 138, Oettinger 1994: 320f.), the assumption being that at some moment the occasional variant /nin/ became grammaticalized. It is true that the consistent spelling of the second *-n-* is unexpected for an irregular phonological process (cf. Oettinger's reservations (1994: 321<sup>65</sup>) that such a generalization of marginal forms is hard to justify).

There is an alternative proposal (made already by Pedersen 1938: 146) that *-nin-* is a result of a contamination between strong (*\*-ne-*) and weak (*\*-n-*) ablaut variants of the infix.

**2.1.8** The derivatives of verbs in *-nin-* show the same distribution of *-nin-* and *-ni-* as the finite forms. The second /n/ is spelled in those words where the verbal stem is followed by a vowel or *-w-*, i.e. in imperfectives<sup>29</sup>, verbal nouns, abstract nouns, e.g., *nininkessar* 'mobilization'. Accordingly, it is omitted before a consonantal cluster in *sarnikzēl* 'compensation'. An interesting case is *istarningai-*. It is attested in two texts, KUB 29.1 OH/NS (I 47 *istarningais*, II 32 *istarningain*) and KBo 18.151 MS (obv. 5,

<sup>27</sup> Consider such examples as Lat. *tingō* 'to wet, dip' < PIE *\*teng-*, Gr. τέγγω; ModE *think* < OE *þencan*.

<sup>28</sup> A similar etymologically unexpected nasal occurs in the Slavic suffix *-nq-* < *\*-nan/m-*, *\*-non/m-* or *\*-nun/m-*, see Arumaa 1985: 225f. The origin of the second nasal is likewise unclear. Some scholars believe it to result from a secondary nasalization (e.g., Endzelin 1923: 13f., Vaillant 1966: 230). Manček (1938: 87ff.) traced this suffix back to *\*-nant-* in participles and the 3pl. form.

<sup>29</sup> The variant *-nin-* of the infix in the imperfective forms (e.g., *ḥar-ni-in-ki-iš-ke-mi* KUB 32.130 34 MH/MS) must have been formed after the anaptyctic vowel was inserted between the stem final consonant and the imperfective suffix *-ske/a-* (Kloekhorst p.c.).

12 *istarnikaīn*)<sup>30</sup>. Oettinger (1979: 139<sup>10</sup>) assumes that *istarnikaīn* is an older and genuine variant. If he is correct, by the Old Hittite period the allomorph /nin/ had not yet spread to all possible positions, i.e. before a consonant and a vowel and before /kw/. The second -n- of the infix is also omitted in a few finite forms (cf. 2.1.2 above) as well as in *hunikissar* (KBo 1.51 rev. 15, Hitt.-Akk. Vocab., NH?). It cannot, however, be excluded that the absence of the second /n/ of the infix in *istarnikaīn* etc. may be due to mere scribal mistakes.

**2.1.9** Summing up, the most plausible scenario for the history of the Hittite infix is as follows:

At some moment, the generalized full grade *\*-né-* of the PIE infix developed into pre-Hittite *\*-nin-*, with raising of /e/ to /i/ before /n/ + final velar of the root. The origin of the second -n- is unclear; it could either result from nasal perseveration or from contamination of the strong and the weak stems of the infix. In Old Hittite, the second -n- was lost before consonant clusters<sup>31</sup>, just as the /n/ before the root-final velar in other verbs like *link-* ‘to swear’. In Middle Hittite, this /n/ was analogically restored in the relevant forms of *link-*, *nink-* etc., but not in the *nin-*verbs. As for the verbs of the *link*-type, the MS and NS spellings *linkzi* and *linkta* must reflect the actual MH and NH pronunciation, while *likzi* and *likta* follow Old Hittite orthographic tradition.

**2.1.10** In the New Hittite texts and copies, the infix is sometimes spelled with -e- (*ḫar-ni-en-ku-un* KBo 14.19 II 28, III 28; *ḫar-ni-en-kán-du* KUB 26.25 11; *šar-ni-en-kán-zi* KBo 6.5 II 13; *šar-ni-en-ki-iš-ke-mi* KUB 14.14 rev. 14). Kloekhorst (2008: 92f.) argues that /i/ is lowered to /e/ before certain consonants, including /n/. If so, /e/ was first raised to /i/ before /nK/ and then lowered back to /e/ in New Hittite before /n/. See further 2.4.

<sup>30</sup> Kloekhorst (2014: 240<sup>867</sup>) notes that this text shows many spelling aberrations, cf. *ba-i-it* in rev. 19 next to typical *pa-i-it* in rev. 12 or *ta-i-iš* in rev.11. Van den Hout (2012: 166) argues that this is one of the earliest texts completely written in Hittite.

<sup>31</sup> Or, in the light of chronology of the infix discussed in 2.1.8, -ni- was reinterpreted as a positional variant of -nin-.



**2.2** In this section, the five verbs with the infix *-nin-* are discussed<sup>32</sup>.

**harnink-** ‘to destroy’

**1sg. pres. act.** *ḥar-ni-ik-mi* KBo 5.13 I 9 NH, KUB 21.5 II 10 NH, KUB 31.4 + KBo 3.41 obv. 9 OH/NS; *ḥar-ni-ik-ki-mi*<sup>33</sup> KBo 13.78 obv. 9. OH/NS

**2sg. pres. act.** *ḥar-ni-ik-ši* KUB 33.120 III 8 MH?/NS; *ḥar-ni-ik-ti* KBo 4.4 III 48, IV 33 NH, KUB 14.15 IV 30 NH, KUB 14.16 III 17 NH

**3sg. pres. act.** *ḥar-ni-ik-zi* KBo 6.10 III 10 NS, KBo 6.11 I 9 OH/NS with dupl. KUB 29.23 6 OH/NS, KUB 4.1 III 16 MH/NS, KUB 24.8 I 6 pre-NH/NS

**1pl. pres. act.** *ḥar-ni-in-ku-[e-ni]* KUB 33.120 III 3 MH?/NS

**2pl. pres. act.** *ḥar-ni-ik-te-ni* KUB 13.4 I 13 MH/NS, KUB 14.1 obv. 68 MH/MS, KUB 33.103 II 2 MH?/NS; *ḥar-ni<sup>1</sup>-ik-te-ni* KUB 33.103 II 4 MH?/NS ([*ḥar-ni-ik-te-ni* in dupl. KUB 33.100 12 MH?/NS)

**1sg. pret. act.** *ḥar-ni-in-ku-un* KBo 2.5 II 6, 7, 8, 9, 14, 16, III 52 NH, KBo 3.1 II 17 OH/NS, KBo 3.46 obv. 9 OH/NS, KBo 4.4 IV 37 NH, KBo 10.2 I 10, 16, 19, 36, 48, II 10, 12, III 3, 8, 38 OH/NS, KBo 12.8 IV 15 OH/NS, KBo 16.17 + KBo 2.5a III 20 NH, KUB 6.41 I 3 NH, KUB 13.9 + 40.62 I 2 MH/NS, KUB 14.15 IV 28 NH, KUB 14.25 I 5 NH, KUB 19.37 III 42 NH, KUB 19.49 I 38 NH, KUB 23.11 II 33 MH/NS, VBoT 58 IV 8 OH/NS; *ḥar-ni-en-ku-un* KBo 14.19 II 28, III 28 NH; *ḥar-ni-ku-un* KBo 2.5a II 6 NH<sup>34</sup>

**2sg. pret. act.** *ḥar-ni-ik-ta* KBo 4.4 IV 46 NH, KUB 24.7 II 4, 8 NH

**3sg. pret. act.** *ḥar-ni-ik-ta* KBo 3.1 I 27, 28 OH/NS, KBo 4.4 I 44, II 17 NH, KBo 5.8 II 17 NH, KBo 10.2 I 5 with dupl. KBo 10.3 I 3 OH/NS, KBo 12.26 IV 13 NH, KBo 22.2 rev. 15 OS or OH/MS, KUB 9.16 IV 6 OH/NS, KUB 16.32 IV 13 NH,

<sup>32</sup> The alleged verb *hini(n)k-* does not exist, see Shatskov 2010 and the entry for *hink-* in 2.3.

<sup>33</sup> The reduplication of *-kk-* in this form is quite unusual. The duplicate KUB 31.4 + KBo 3.41 obv. 9 has *ḥar-ni-ik-mi*. In another duplicate, KBo 12.22 (OH/NS) in the line I 13 we find [...]*x-ki-mi* [...]. In the autograph, the traces of the sign preceding KI do not look like belonging to IK; however, in my opinion, the photo of this fragment at the HPM website does not preclude reading this sign as IK, and a collation is necessary. The interpretation of this spelling is also difficult. Unless it was a scribal mistake in the text on which both KBo 13.78 and KBo 12.22 are based, it probably reflects a sporadic anaptyxis in the cluster /km/.

<sup>34</sup> In a few cases *-n-* is omitted before consonants, cf. 2.1.2 and Hoffner, Melchert 2008: 46f.

KUB 19.13 I 49, 51 NH, KUB 21.9 I 4 NH, KUB 26.71 IV 17 OH/NS, KUB 26.74 I 8 OH/NS, KUB 31.5 4 OH/NS; *ḥar-ni-ik-ta*<sup>1</sup> KUB 19.30 I 11 NH

**3pl. pret. act.** *ḥar-ni-in-ke-er* KBo 5.8 13, 61 NH, KBo 2.5 II 60, III 10 NH, KUB 13.9 + KUB 40.62 I 10 MH/NS, KUB 24.7 I 37 NH; *ḥar-ni-in-ker* KBo 3.46 rev. 35 OH/NS, KBo 16.17 + KBo 2.5a III 10 NH, KBo 18.115 obv. 6 NH

**2sg. imp. act.** *ḥar-ni-ik* KBo 4.4 I 42 NH, KBo 22.78 12' MS?

**3sg. imp. act.** *ḥar-ni-ik-du* KBo 22.81 9' NH (*ḥar-ni-ik[-du]*), KUB 26.25 14 NH, IBoT 1.30 obv. 8 OH ?/NS; *ḥar-ni-ik-tu*<sub>4</sub> KBo 11.10 III 30 MH/NS

**2pl. imp. act.** *ḥar-ni-ik-te-en* KBo 14.10 II 33 NH, KUB 4.1 I 35 MH/NS; *ḥar-ni-ik-tén* KBo 8.70 11 MH/MS, KUB 15.33b III 18 MH/NS

**3pl. imp. act.** *ḥar-ni-in-kán-du* KBo 5.3 II 7, 31, 43, 49, IV 17 NH, KBo 6.34 II 38 MH/NS, KBo 16.27 II 15 MH/NS, KUB 19.49 IV 39 NH, KUB 21.1 IV 36, 37 NH, KUB 21.42 II 4 NH, KUB 26.1 III 44 NH, KUB 26.12 II 22 NH, KUB 26.50 rev. 11 NH; *ḥar-ni-en-kán-du* KUB 26.25 11 NH

**part. n.-acc. sg. neut.** *ḥar-ni-in-kán* KUB 13.2 IV 19 MH/NS, KBo 14.20 I 13 NH; *ḥar-ni-in-kán-an* KUB 27.59 I 10 NS.

**inf.** *ḥar-ni-in-ku-wa-an-zi* KBo 4.4 II 64 NH

**verbal subst. nom.-acc. sg.** *ḥar-ni-in-ku-u-ar* KBo 3.4 I 36 NH

**impf. 1sg. pres. act.** *ḥar-ni-in-ki-iš-ke-mi* KUB 32.130 34 MH/MS

**impf. 2sg. pres. act.** *ḥar-ni-in-ki-eš-ke-ši* KUB 24.7 II 59 NH

**impf. 1sg. pret. act.** *ḥar-ni-in-ki-iš-ke-nu-un* KUB 14.16 12 NH,

**impf. 3sg. pret. act.** *ḥar-ni-in-ki-iš-ke-et* KBo 3.1 I 7, 17 OH/NS with dupl. KUB 11.1 I 6, 16 OH/NS, KUB 24.3 II 46 MH/NS with dupl. KUB 24.4 rev. 4 MH/MS

**impf. 3pl. pret. act.** *ḥar-ni-in-ki-eš-ke-er* KUB 23.11 III 12 MH/NS, KUB 26.74 4 OH/NS; *ḥar-ni-in-ki-iš-ke-er* KUB 19.11 IV 31 NH

**supine** *ḥar-ni-in-ki-iš-ke-u-an* KUB 48.89 obv. 8 NS

The verb *harnink-* ‘to destroy’ is related to *hark-* ‘to perish, get lost’. Semantically, *harnink-* is a causative to *hark-*<sup>35</sup>. From the times of Hattusili III on, the stem *harnink-* is gradually replaced by *harganu-*, derived from the same root with the suffix *-nu-* (s. Ünal 1984: 76ff. and the entry for *harganu-* ‘to destroy’ in 4.1 below).

Puhvel (HED 3: 167) stresses that for establishing the etymology of these verbs the semantics of *hark-* ‘to perish’, rather than of its derivative *harnink-* ‘to destroy’, should be used. For this reason he rejects the traditional comparison of *harnink-* to OIr. *org(a)id* ‘to smite’ and Arm. *harkanem* ‘to smite, smash’ (this idea goes back to Cuny 1934: 205). Instead, he connects *harnink-* with Gr. ἔρχομαι ‘go’ which might be acceptable semantically, but is phonetically impossible as the *e*-coloring laryngeal, which has to be reconstructed in the anlaut of the Greek verb, would not give *h-* in Hittite (cf., e.g., Melchert 1994: 65). The Greek verb is rather related to Hittite *ār-<sup>i</sup>/ar-* ‘to arrive’ (see, e.g., Oettinger 1979: 404).

LIV: 301 lists *hark-* and *harnink-* together with the Armenian *harkanem* and Old Irish *org(a)id* under the entry *\*h<sub>3</sub>erg-* ‘to disappear’, assuming that the Armenian and Old Irish verbs generalized the causative meaning, which must initially have been limited to the present infixed stem only. The problem is that there are no reflexes of the infixed stem attested in either of these languages; according to LIV, p. 301, the present stem *harkanem* is not a direct reflex of the PIE infixed stem, but is based on the aorist stem *\*hark-* < *\*h<sub>3</sub>rk-*. The scenario, according to which both Old Irish and Armenian verbs had a nasal infix present with a causative meaning that was generalized to the entire verb and was preserved even after the infixed stem itself had disappeared, is hardly credible. Note also that the Old Irish and Armenian verbs can in fact go back to PIE *\*perg-*, an extended variant of the root *\*per-* ‘strike’ (LIV: 473), to which *har(e)-* < *\*pr-*, the suppletive aorist to Arm. *harkanem*, belongs, cf. the discussion in Klingenschmitt 1982: 215f. This etymology is attractive semantically, though we have to reconstruct an extended root *\*perg-* for these two words alone. All

<sup>35</sup> “A causative is a verb or verbal construction meaning ‘cause to Vo’, ‘make Vo’, where Vo stands for the embedded base verb” (Kulikov 2001: 886). For this function of the infix in Hittite see 7.2.1-3.

in all, the connection of OIr. *org(a)id* ‘to smite’ and Arm. *harkanem* with Hittite *hark-* and *harnink-* is questionable, and an alternative etymology for *hark-* is desirable.

In my opinion, there was a Hittite suffix *-k(k)-*, which can be seen in *hassikk-* ‘to satiate’, *malekk-* ‘to become weak’, *nink-* ‘to get drunk’, *dusk-* ‘to rejoice’ and also possibly in *mark-* ‘to divide’ (see Melchert 1994: 165, Shatskov 2015, and the entries for *hassikkanu-*, *maliskunu-*, *ninganu-* and *dusganu-* in 4.1 below). If *hark-* also contains this suffix, this verb can be compared to Toch. AB *ār-* ‘to cease, come to an end’.

Two etymologies have been proposed for the Tocharian verb. Hackstein (1998: 228ff.) derived the Tocharian verb from the root *\*h<sub>3</sub>er-* ‘to rise’. Adams (2013: 51) offers several instances of the semantic development ‘to rise’ > ‘to stand’ > ‘to stop’. The Hittite reflexes of this root are *ar-<sup>tta</sup>* ‘to stand’, *arae-<sup>zi</sup>* and *arai-<sup>i</sup>*, see Kloekhorst 2008: 195f., 199f. This etymology precludes the connection of *hark-* to Toch. AB *ār-*. Alternatively, the Tocharian verb has been compared to Hitt. *harra-* ‘to grind’, the root being *\*h<sub>2</sub>erH-* (LIV: 271f. and cf. also Malzahn 2010: 527f.).

To my mind, Hitt. *hark-* ‘to disappear’ (< *\*h<sub>2</sub>er-* + *\*-k-*) is a better match for Toch. *ār-* ‘to cease, come to an end’ than *ar-<sup>tta</sup>* ‘to stand’ etc. Hitt. *harra-* ‘to grind’ might still be related<sup>36</sup>, if *hark-* goes back to *\*h<sub>2</sub>rH-k-*<sup>37</sup>; this is not very likely, though, as there seems to be no motivation for the semantic development ‘to disappear’ > ‘to grind’ in such a stem. For the alternative etymologies for *harra-* see the entry for *harranu-* ‘to grind’ in 4.1.

**hunink-** ‘to scar, crack’

**3sg. pres. act.** *hu-ú-ni-ik-zi*<sup>38</sup> KBo 6.2 I 16 OS; *hu-u-ni-ik-zi* KBo 6.2 I 13 OS, KBo 6.3 I 21, 25 OH/NS, KBo 6.4 I 20 OH/NS

**3sg. pret. act.** *hu-u-ni-ik-ta* KBo 32.32 r. Kol 5’ MH/MS

**3sg. pres. mid.** *hu-ni-ik-ta-ri* KBo 5.1 I 3 NH; *hu-u-ni-ik-ta-ri* KBo 5.1 IV 39 NH

<sup>36</sup> Hitt. *harra-* ‘to grind’ was compared to *hark-* already by Kronasser (1957: 121f.).

<sup>37</sup> If so, *\*CRHC-* and *\*CRC-* both yielded *\*CaRC-* in Hittite.

<sup>38</sup> Yates (2015: 174) argues that this spelling shows that the initial syllable was accented in this word. In my opinion, this is rather a misspelling, see Kloekhorst 2008: 363.

**3sg. pret. mid.** *ḥu-u-ni-ik-ta-at* KBo 5.1 I 44 NH; *ḥu-ni-ik-ta-at* KUB 59.40 rev. 6 OS?

**part. n. sg. com.** *ḥu-u-ni-kán-za* KBo 6.2 I 15 OS, KBo 6.5 I 3 OH/NS; *ḥu-u-ni-in-kán-za* KBo 6.2 I 14 OS, KBo 6.3 I 22, 23 OH/NS, KBo 6.4 I 21 OH/NS

**verbal subst. nom.-acc. sg.** *ḥu-[u-]ni-ki-iš-ša-[ar]* KBo 1.51 rev. 15 NS

Most of the contexts for *hunink-* come from two texts, viz. the Laws and KBo 5.1 (CTH 476, Papanikri).

In the Laws, this verb is used twice, both times in regard to incurring some damage to a human being:

KBo 6.2 I 13 (#9) [*ták-k*]u LÚ.U<sub>19</sub>.LU-*aš* SAG.DU-*SÚ* ku-iš-ki *ḥu-u-ni-ik-zi* (...)

(14) *ḥu-u-ni-in-kán-za* 3 GÍN KU.BABBAR *da-a-aš* “If anyone injures a person’s head (...), the injured party took 3 shekels of silver” (Hoffner 1997: 22f.)

KBo 6.2. I 16 (#10) *tak-ku* LÚ.U<sub>19</sub>.LU-*an* ku-iš-ki *ḥu-ú-ni-ik-zi ta-an iš-tar-ni-ik-zi* “if anyone injures a (free) person and temporarily incapacitates him” (Hoffner 1997: 23f.)

In KBo 5.1, *hunink-* refers to damaging furniture. E.g., KBo 5.1 I 2 *ma-a-an MUNUS-za ḥar-na-a-ú-i e-eš-zi* (3) nu <sup>DUG</sup>DÍLIM.GAL *ḥar-na-a-u-wa-aš ḥu-ni-ik-ta-ri na-aš-ma* <sup>GIŠ</sup>GAG *du-wa-ar-na-at-ta-ri* “if a woman sits down on the birthing seat and the pan cracks or a peg breaks...” (s. HED 3: 381 for the translation).

The context in KUB 59.40 is broken, so the meaning of *hunink-* in this text cannot be established. In the wordlist KBo 1.51, verbal noun *hunikissar* translates Akk. *ṭibihdu*, which means ‘slaughter’<sup>39</sup>. This meaning is the same as the meaning of *hukissar* from the verb *huek-* ‘to stab, slaughter’, from which *hunink-* is derived (see more on this issue below).

An infinitive of *hunink-* is attested twice in KUB 5.6 (CTH , Oracle inquiry). KUB 5.6+ IV 7 *hūninkuwanzi kuit ANA* <sup>D</sup>UTU-ŠI *IŠTU* SU<sup>MEŠ</sup> *areskanzi* (8) nu *ŪL SIxSÁ-ri nu DINGIR* <sup>LUM</sup>*piran tiyanna SIxSÁ-at* “what concerns *h.*, they investigate

<sup>39</sup> The fragment is damaged, and HW<sup>2</sup> H: 723 notes that the reading of both *hunikissar* and *ṭibihdu* is not entirely reliable.

through exta for his Majesty, it is not ascertained. Stepping before a deity is ascertained.”

KUB 5.6+ IV 12 *hūninkuwanzi kuit* SU<sup>MEŠ</sup> *purammema* NU.SIG<sub>5</sub>-ta (13) [*nu=ká*]n<sup>D</sup>LAMMA<sup>URU</sup> *Taurissa piran tiyanna* S<sub>I</sub>xSÁ-at “what concerns *h.*, p.-exta are unfavourable. Stepping before the Tutelary Deity of Taurissa was ascertained”.

Beckman (2011: 205) translates *hūninkuwanzi* as ‘the beating’. Ünal (2005: 80) similarly translates it as ‘zerschlagen’ and assumes that it describes breaking a statue or a jar (ibid. 91). These passages are indeed obscure, but in my opinion *huninkuwanzi* may well mean ‘(to) slaughter’ here and refer to a possible course of actions to appease gods. If so, the semantics of both the infinitive and the abstract noun of *hunink-* are similar to that of the parent verb *huek-*.

Puhvel (HED 3: 381) translates *hunink-* as ‘to bash, batter, crack’. However, *hunink-* hardly means simply ‘to bash’ or ‘to hit’: in this meaning the Laws use the verb *walh-* in #3 “if anyone strikes a free man or woman so that he dies” (Hoffner 1997: 18). The translation ‘to batter’ does not fit paragraph 9<sup>40</sup>, unless we take SAG.DU-SÚ as referring to the whole person rather than to his or her head. Hoffner (1997: 176) discusses the previous interpretations of *hunink-* and translates the verb as ‘to damage, injure’, with a remark that “the nature of the head injury is unclear”.

Indeed, *hunink-* in paragraphs 9 and 10 is likely to denote some kind of specific injury rather than an injury in general, since the adjacent paragraphs in the Laws deal with blinding (to which knocking out a tooth is added in a later version: paragraphs 7 and 8), breaking a limb (paragraphs 11 and 12), and biting off a nose (paragraphs 13 and 14). Considering that *hunink-* is plausibly interpreted as ‘to crack’ in KBo 5.1, in the Laws the verb may mean making an open wound or a cut that results in a scar on the face (#9) or an infection (#10).

In a later version of the Laws, KBo 6.4 I 22, *hunink-* is replaced by a hapax *hapallasai-*, which was compared by van Windekens (1979: 916) to Gr. ἄπελος and Toch.A *päl* ‘wound’. According to Beekes (2010: 115) and Adams (2013: 414), this

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<sup>40</sup> *takku* LÚ.U<sub>19</sub>.LU-as SAG.DU-SÚ *kuiski hūnikzi* “if anyone injures a person’s head” (Hoffner 1997: 22f.)

connection is “highly uncertain”. It is, however, still possible both semantically and formally under the reconstruction of the root as *\*h<sub>2</sub>pel-* ‘wound’. Puhvel nevertheless prefers Hoffner’s comparison of *hapallasai-* to Hitt. *hupallas-* ‘skull’ or ‘scalp’ (HED 3: 116).

*Hunink-* itself is usually connected with *huek-* ‘to slaughter, stab’. The latter verb typically has (sacrificial) animals as its objects, with one exception<sup>41</sup>. The derivation of *hunink-* from *huek-* is doubted by Puhvel for the reason that *huek-* is already a transitive verb (HED 3: 382), but this is not necessarily a problem. First, the verbal nouns *hunikissar* and *hukissar*, derived from *hunink-* and *huek-*, respectively, have the same meaning ‘slaughter’. Second, in the languages of the world causative markers may in some cases have non-causative semantics (e.g., Aikhenvald 2011); thus, the Hittite verbs with the suffix *-nu-* are not always causatives, even though the primary function of this suffix was derivation of causatives, see further 4.14 and 7.2.

Therefore, Puhvel’s objection to the traditional etymology is not valid. If *huek-* actually means ‘to stab’ rather than ‘to slaughter’, and *hunink-* means ‘to cut, scar’, as argued above, the difference between *huek-* and *hunink-* could be aspectual, that is, *huek-* has a punctive and *hunink-* has an iterative or intensive value. In fact, already Strunk (1979: 244) assumed that the difference between these two verbs is aspectual: in his terminology, *huek-* is ‘konfektiv - punktativ’ (punctive), whereas *hunink-* is ‘infectiv-terminativ’ (durative/imperfective-telic). See further chapter 7 on the function of the infix.

Puhvel’s (HED 3: 382) connection of *hunink-* (but not *huek-*) to Gr. ἄγνομι ‘break’, Toch AB. *wāk-* ‘to split’ is attractive semantically, but weak formally. Since Kammenhuber (1961: 47) the Greek and Tocharian verbs have instead been compared to Hittite *wāk-/wakk-* ‘to bite’ (PIE *\*weh<sub>2</sub>g-*, LIV: 664). The root *\*weh<sub>2</sub>g-* would not give Hitt. *hunink-* and *huek-* unless we suggest some kind of laryngeal metathesis *\*wh<sub>2</sub>g-* > *\*h<sub>2</sub>ug-* and a later analogical full grade for *huek-*.

<sup>41</sup> KBo 3.34 I 17-18 *s=an mSarmāssūi mNunnūi=ya sakuwa=sma huekta* “(he) killed him before the eyes of S. and N.”. In this passage from the Palace Chronicles (CTH 8.A), the object is a human being. The action, however, could be similar to that of slaughtering animals.

Strunk (1979: 242ff.) compared *huek-* and *hunink-* to the Old Persian imperfect *avajam* ‘poke out an eye’, reconstructing PIE *\*h<sub>2</sub>weg<sup>h</sup>-*. Puhvel (HED 3: 330) adds other possible cognates, suggested originally by Čop: Gr. ὀφνίς, Lat. *vōmis*, OHG *waganso* ‘plowshare’, Old Prussian *wagnis* ‘coulter’.

Since the original meaning of this root in Hittite is ‘to cut’, ‘to split’ or similar, as argued above, it is likely to be cognate with Gr. ὀφνίς, Old Prussian *wagnis* etc. The missing reflex of the initial laryngeal in ὀφνίς (< *\*h<sub>2</sub>wog<sup>wh</sup>nis*) might be due to the Saussure’s effect (loss of a laryngeal in the environments *\*#\_Ro* and *\*oR\_C*, see further Nussbaum 1997, esp. p. 182, but cf. van Beek 2011, Pronk 2011). The connection of *huek-* and *hunink-* to Old Persian *vaj-* is less certain due to the difference in semantics. However, the meanings of its cognates in modern Iranian languages (Beluj. *gwaht*, *gwatk/gwaj-* ‘to root out, pull out, dig’, Zazaki *vetiš/vežen-* ‘to take, bring out’ and so on, see Cheung 2007: 204) indicate that ‘to dig out, pull out’ is likely to be the original meaning for this root in Iranian. If so, the Iranian verbs may still be related, assuming the semantic development ‘to cut, split’ > ‘to harrow’ > ‘to dig (out)’ > ‘to pull out’.

**istarnink-** ‘to make ill’

**2sg. pres. act.** *iš-tar-ni-ik-ši* KBo 3.28 II 16 OH/NS

**3sg. pres. act.** *iš-tar-ni-ik-zi* KBo 6.2 I 16 OS; *iš-tar-ni-ik-za* KBo 40.272 5 MS

**1pl. pret. act.** *iš-tar-ni-in-ku-en* KBo 3.45 obv. 4 OH/NS

**3sg. pret. mid.** *iš-tar-ni-ik-ta-at* KBo 3.34 II 39 OH/NS

**2sg. imp. act.** *iš-tar-ni-ik* KBo 3.28 II 16 OH/NS

This verb is generally connected with the verb *istark-* ‘to become ill, ail’ (with the secondary stem *istar(ak)kiye/a-*). These verbs are often intransitive or impersonal; but they can also be used transitively with an explicit subject, e.g., *na-an i-da-lu-uš GIG-aš iš-tar-ak-ta* ‘A bad disease ailed him’ (KUB 14.15 II (6)), s. HED 1/2: 475, Kloekhorst 2008: 417.



Some scholars assume that *istark-* has a voiceless velar in the auslaut of this root (Kloekhorst 2008: 484). This is based on two assumptions. First, it was suggested that the loss of a velar in *iš-tar-zi* KUB 8.38 + KUB 44.63 III 9 reflects a regular phonetic process that was conditioned by the quality of the consonant. That is, *\*k* was lost between a resonant and a consonant, while *\*g<sup>(h)</sup>* was preserved (HED 3: 156, Kloekhorst 2008: 305, 417f.). That would mean that in all the other forms with the preserved *-k-*, like *iš-tar-ak-ta* above, it was restored. Moreover, if *iš-tar-zi* in KUB 8.38+ III 9 (MH/NS) is not a scribal mistake and reflects the actual pronunciation, the rare spelling *ḥa-ma-an-zi* in IBoT 2.122 7 would similarly show that PIE voiced aspirates were also lost between consonants (*hamank-* ‘to bind’ ultimately goes back to PIE *\*h<sub>2</sub>emǵ<sup>h</sup>-*, see the respective entry). In my view, *iš-tar-zi* can be explained in several other ways and does not prove that the final consonant in this root was *\*k* or *\*ḳ*.

The other reason to reconstruct a voiceless velar for this root is the frequent spelling *-kk-* in the stem *istar(k)kiye/a-*: *iš-tar-ak-ki-ya-zi* KBo 21.21 III 4 MS, *[i]š-tar-ak-ki-et* KBo 5.9 I 15 NH, *iš-tar-ak-ki-ya-at* KUB 14.16 III 41 NH, *[i]š-tar-ak-ki-ya-at-ta-at* KUB 14.15 II 13 NH. Single *-k-* in this stem is also attested – *[i]š-tar-ki-ya-az-zi* KBo 5.4 rev. 38 NH, *iš-tar-ki-et* KUB 19.23 rev. 12 NH, *iš-tar-ki-at* KBo 4.6 obv. 24 NH. Oettinger (1979: 197) and Melchert (1994: 153) argued that voiced stops were geminated after /r/ in this position, since we find geminated spellings also in *harp-* ‘to change allegiance, join with’ (*\*h<sub>3</sub>erb<sup>h</sup>-*) and *parkiya-* ‘to lift’ (*\*b<sup>h</sup>erǵ<sup>h</sup>-*). Kloekhorst (2008: 417) is correct, however, that we only have one such spelling for *parkiya-* and two more for *harp-*, so they look exceptional in their paradigms, unlike *istarakkiye/a-*. Note that Kimball (1999: 283) believes that *-pp-* after *-r-* in *karp-* ‘to seize’ indeed stands for a voiceless labial (*\*kerp-*) and sees here a parallel to *istarakkiye/a-*. But, if the geminated *-kk-* in *istarakkiye/a-* indeed points to a PIE voiceless velar, one would expect a geminated *-kk-* in *markiye/a-* ‘to object to, disapprove of’ as well, as it goes back to *\*mrk-ye/o-* (Kloekhorst 2008: 559). Since there are no such spellings attested for *markiye/a-*, the geminated *-kk-* in *istarakkiye/a-*

is not indicative of the quality of the velar. Summing up, there is no indisputable indications that the final *-k-* of *istark-* reflects a voiceless velar.

Assuming a voiceless consonant in the auslaut, Kloekhorst compares *istark-* to Lith. *teršiù* ‘befoul’, Lat. *stercus* ‘excrement’, all from PIE *\*(s)terk-*. This root also has infixed forms, although these are limited to nominal derivatives: Bret. *stroñk* ‘excrements’, Welsh *trwnc* ‘urine’. But the proposed semantic development ‘to befoul’ > ‘to ail’ is far from compelling.

A comparison with Lith. *sergù* ‘am ill’, OCS *sraga*, Toch. A *särk*, Toch. B *sark*, OIr. *serg* ‘illness’ is perfect semantically. However, the initial consonant cluster *st-* in Hittite does not match the anlaut in the other languages. Puhvel adduces one more possible instance of such a correspondence: Hitt. *istanza-* ‘soul’ and Lat. *sensus* ‘feeling’, OHG *sin(n)* ‘sense, mind’, Lith. *sintėti* ‘to decide, think’ (HED 1/2: 477)<sup>42</sup>. A similar case can be Lith. *sérgėti* ‘to guard, watch’ and OCS *strešti* (Ivanov 1965: 65 and note 40), where clearly cognate words have the same variation. Still, Hittite initial *st-* : initial *s-* in Baltic and elsewhere is not regular. Prof. Lubotsky points out to me that this etymology can still be salvaged if one assumes an initial cluster /ts/, even though the anlaut of the alleged PIE root *\*tserg<sup>(h)</sup>-* might look unusual<sup>43</sup>.

Eichner (1982: 16ff.) connected Hitt. *istark-* to Skt. *trh-* ‘to crush’ (aor. *atrham* (AV), pres. *trṇedhu* (AV)), reconstructing PIE *\*(s)terg<sup>h</sup>-* ‘smash’. EWAia states that the etymology of this verb is unclear (EWAia I: 636). On the formal side this comparison seems perfect. The semantic development of the Hittite verb is also conceivable – Puhvel (HED 1/2: 476) states that the original meaning of the Hittite verb was likely ‘to cause pain’ and that this development has a parallel in English *ail* < Old English *eglan* ‘to cause pain’.

Less likely is the comparison of *istark-* with Gr. στρηγγάλη ‘cord, noose’, Lat. *stringō* (<*\*strengō*) ‘to draw tight’, Old English *stearc* ‘stiff’, *strec* ‘firm’, OHG *strang*

<sup>42</sup> This etymology is also far from certain, cf. the alternatives listed in Kloekhorst 2008: 415. One more possibility is perhaps a connection to Hurr. *istan(i)-* ‘Inneres’, ‘Herz’ (for the Hurrian word see Wegner 2000: 195).

<sup>43</sup> See Kroonen, Lubotsky 2009 and Kroonen 2013: 476f. for other etymologies involving the initial cluster *\*ts-*.

‘cord’, *strengi* ‘stiff’ and so on (s. HEG I-K: 434, HED 1/2: 477, Kimball 1999: 430f.). Oettinger (1979: 143) adds here Gr. στέργω ‘to love’.

Summing up, there are several possible etymologies for *istark-*. On the whole, the comparison with Skt. *trh-* ‘to crush’ is plausible both formally and semantically; in this case, we would have parallel infixed formations in Sanskrit and Hittite. Nevertheless, this connection is not certain.

**ninink-** ‘to set in motion, disturb’

**1sg. pres. act.** *ni-ni-ik-mi* KBo 18.81 left edge MS, KUB 36.35 I 4 MH?/NS

**2sg. pres. act.** *ni-ni-ik-ši* KBo 18.36 17 NS

**3sg. pres. act.** *ni-i-ni-i[k-z]i* KUB 43.31 left. col. 10 OS?; *ni-ni-ik-zi* KBo 11.14 IV 19 MH/NS, KUB 8.28 rev. 14 OH/NS, KUB 13.2 III 18 MH/NS, KUB 19.13 I 28 NH, Bo 86/299 III 37 NH

**1pl. pres. act.** *ni-ni-in<sup>1</sup>-ku-u-e-ni* KUB 50.6 III 43 NH

**2pl. pres. act.** *ni-ni-ik-te-ni* KUB 12.63 obv. 37 OH/MS

**3pl. pres. act.** *ni-ni-in-kán-zi* KBo 16.25 I 31 MH/MS, KUB 20.84 obv. 4 NS, KUB 30.56 III 15 NS, KUB 54.98 14 NS, Bo 86/299 III 37 NH; *ni-ni-kán-zi* KUB 18.15 rev. 7 NH

**1sg. pret. act.** *ni-ni-in-ku-un* KBo 3.4 II 8 NH, KBo 16.14 II 15 + KBo 16.8 II 30 NH, KUB 21.38 obv. 24 NH

**3sg. pret. act.** *ni-ni-ik-ta* KBo 16.17 III 35 NH, KUB 1.1 II 42 NH, KUB 14.1 obv. 45 MH/MS, KUB 34.49 rev.7 MH/MS, KUB 23.91 3 NH; *ni-ni-in-ga-aš* KUB 53.15 IV! 30, 33 NS

**3pl. pret. act.** *ni-ni-in-ke-er* KUB 14.1 obv. 71 MH/MS; *ni-ni-in-ker* KUB 18.27 7 NH

**2sg. imp. act.** *ni-ni-ik* KUB 19.39 III 11 NH, KUB 31.68 obv. 22 NH

**2pl. imp. act.** *ni-ni-ik-tén* KBo 50.268 I 14 MS?

**3pl. imp. act.** *ni-ni-in-kán-du* KBo 5.3 IV 41 NH, KUB 13.1 I 22 MH/MS, Bo 86/299 III 41 NH

**2sg. pres. mid.** *ne-ni-ik-ta-ti* KBo 10.12 II 23 NH; *ne-ni-ik-ta-ri* KBo 10.12 II 30 NH

**3sg. pres. mid.** *ni-ni-ik-ta-ri* KBo 5.4 rev. 43 NH, KBo 24.4 rev.! 10 NS, KUB 13.4 III 38 MH/NS with dupl. KUB 13.5 III 8 MH/NS, KUB 21.1 III 46 NH, KUB 31.86 IV 2,3 MH/NS, Fs. Laroche 142: 24; *ni-ni<-ik>-ta-ri* KUB 24.14 IV 18b NH

**3sg. pres. mid.** *ni-ni-in-kán-ta* KBo 8.47 obv. 10 NS, KUB 8.1 III 21 OH/NS, KUB 23.72 rev. 18 MH/MS

**3sg. pret. mid.** *ni-ni-ik-ta-ti* KUB 23.28 12 OH/NS; *ni-ni-ik-ta-at* KBo 5.8 I 33, II 11 NH, KBo 16.8 I 9 NH; *ni-ni-ik<-ta>-at* KUB 53.15 IV! 31 NS

**3pl. pres. mid.** *ni-ni-in-kán-ta-ti* KBo 49.11 Rs? l. R. 6 NS

**3sg. imp. mid.** *ni-ni-ik-ta-ru* KBo 39.8 IV 31 with dupl. KBo 9.106 III 45 MH/NS and KBo 44.17 3 IV 114 MH/MS

**2pl. imp. act.** *[n]i?-ni-ik-du-ma-at* KBo 16.24 I 18 MH/MS; *ni-ni-ik-tum-ma-at* KUB 31.55 obv. 15 MH/NS

**part. n. pl. com.** *ni-in-in-kán-te-eš* KUB 5.20 I 39 NH, KUB 30.45 III 13 NS, KUB 43.57 IV 25 MH/NS

**part. n.-acc. sg. neut.** *ni-ni-in-kán* KBo 16.8 II 11 NH, KBo 16.97 rev. 5, 16 MH/MS, FHG 16 II 17 NS

**Inf.** *[ni-]ni-in-ku-u-an-zi* KUB 1.9 III 12 NH

**Verbal noun g.sg.** *ni-ni-in-ku-wa-aš* KUB 20.66 III 3 OH/NS, KUB 30.55 rev.? 6, KUB 44.33 I 4 OH/NS

**impf. 3sg. pres. act.** *ni-ni-in-ki-eš-ke-ez-zi* KUB 44.64 I 19 NS; *ni-ni-in-ki-iš-ke-ez-zi* KUB 31.141 6 NH, KUB 33.106 I 6 NH

**impf. 3pl. pres. act.** *ni-ni-in-ki-eš-kán-zi* KBo 22.87 rev. 7; *ni-ni-in-kiš-kán-zi* KBo 2.6 II 55 NH

**impf. 3pl. imp. act.** *ni-ni-in-ki-iš-kán-du* Bo 86/299 III 38 NH

**impf. 3pl. pres. mid.** *[ni-ni-in-k]i-iš-kán-ta* KBo 16.24 I 17 MH/MS

**impf. 3sg. pres. act.** *[ni-]ni-in-ki-iš-ke-et-ta-at* KUB 34.51 8 NS

The Chicago Hittite Dictionary provides multiple translations for this verb, among them ‘to set in motion’, ‘to move’, ‘to behave in disorderly manner’, ‘to disturb’, ‘to break open’. Ünal (1996: 34f.) suggests ‘to disturb’ as the basic meaning of this word, which indeed fits many contexts much better than some of the meanings provided by CHD like ‘to break open’ or ‘to behave disorderly’.

In a few instances, *ninink-* is used intransitively. In KUB 8.28 obv. 17 [*takk*]u INA<sup>ITU</sup> 10<sup>KAM</sup> d<sup>d</sup> *ningaš ni-n[i-ik-zi]* “If in the 10<sup>th</sup> month the god Ninga g[ets] moving”, (similar in obv. 2, 4, 7, 10, 14, 20) and rev. 13-14 *mān* d<sup>d</sup> [*ningaš*] *ni-ni-ik-zi* “when the God Ninga gets moving” the form *ninikzi* seems to be intransitive, cf. CHD L-N: 441, but this text is poorly preserved. In KUB 13.2 III 17, 18 active forms of *ninikzi* correspond to middle forms in the duplicate KUB 31.86 IV 1-3 and seem to be used intransitively: [(DINGIR<sup>MEŠ</sup>-y)]a *kuwapi ēššanzi nu ANA PANI DINGIR<sup>MEŠ</sup> lē kuiški ni-ni-ik-ta-ri* (KUB 40.56 II 24-25 *ni-ni-i[n-kán-za?]*; KUB 13.2 III 17 *ni-ni-ik-zi*) INA É.EZEN=ya *lē kuiski ni-ni-ik-ta-ri* (KUB 13.2 18 *ni-ni-ik-zi*). “When they are worshipping the gods, let no one become disorderly before the gods, and let no one become disorderly in the festival house (but let the reverence be observed toward all classes of priests)”, s. CHD L-N: 441. (Both KUB 31.86 and KUB 13.2 are New Hittite copies of a Middle Hittite text.)

Neu (1968b: 78) finds a similar situation in KUB 13.4 III 36ff. with *ni<ni>kzi*, which corresponds to *niniktari* in the duplicate. CHD L-N: 441, however, takes this verb as *nink-* ‘to get drunk’: ŠÀ É DINGIR<sup>LIM</sup> *nasma tamēdani* É<sup>É</sup> *karimme kuiski nikzi n=as=kan mān ŠÀ É DINGIR<sup>LIM</sup> ni-ni-ik-ta-ri nu hallūwāin iyazi n=asta EZEN<sub>4</sub> zahzi*. “(If) in a temple or other sacred building some... -person gets drunk(?), if he becomes disorderly inside the temple, so that he causes a quarrel, and disrupts a festival”.

Since the root structure of all the other *nin-*verbs in Hittite is either *CeRC-* or *CReC-*, it is safe to assume that *ninink-* goes back to *\*neiK-* or, less likely, *\*nieK-* (cf. Oettinger 1979: 143). On the assumption that *ninink-* means ‘to rise’, Benveniste (1954: 40) suggested the following cognates for this verb: Lith. *su-ninkù*, *-nìkti* ‘to

become involved, assault', OCS *vъz-niknŋti* 'to rise, appear' with aor. *nikъ* (cf. HEG N: 329f., Eichner 1982: 19, Fraenkel 1962: 503 and see Hock 2015: 704 for more Baltic cognates). The root is presented as *\*neik-* 'to rise' in LIV: 451, with Greek *νεῖκος* 'quarrel' added as a nominal derivative. On the basis of Lith. *(ap-)ninkù* and Hitt. *nini(n)k-* an infixed stem can be reconstructed for PIE.

The meaning of the suggested Slavic cognates is disputed<sup>44</sup>. Nevertheless, since *ninink-* means 'to set in motion, disturb' rather than 'to rise', it is better compared directly to Lith. *ap-ninkù*, *-nìkti* 'to assault, beset', *į-nìkti* 'to get down to, engage, attack', *ap-nìkti* 'to energetically get down to; beset'<sup>45</sup>, while the relation to OCS *vъz-niknŋti* 'to rise, appear' is less apparent. The root *\*neik-* seems to denote some kind of energetic approaching (similarly Beekes 2010: 1002, contra LIV: 451 'sich erheben').

#### **sarnink-** 'to compensate'

**1sg. pres. act.** *šar-ni-ik-mi* KBo 6.2 IV 48' OS with dupls. KBo 6.3 IV 46 OH/NS and KUB 29.19 6 OH/NS, KBo 12.58 rev. 7 NH, KUB 13.35 34 NH, KUB 14.4 III 27 NH, KUB 26.69 VIII(?) 6 NS, KUB 31.58 Rs 10 NH, IBoT 3.122 + KUB 31.66 Rs V 28' NH

**3sg. pres. act.** *šar-ni-ik-zi* KBo 6.2 I 5, II 54, IV 48, 56 OS, KBo 6.3 I 12, II 7, II 49, IV 54, 55, 57 OH/NS KBo 6.4 I 5, IV 3, 11 OH/NS, KBo 6.5 II 14, III 10, IV 8 OH/NS, KBo 6.10 II 18' OH/NS, KBo 14.21 I 37 NH, KBo 19.4 IV 5 OH/NS, KBo 27.16 II 7 MH/NS, KUB 8.81 III 5,6 MH/MS, KUB 13.7 I 13 MH/NS, KUB 13.35 II 44 NH, KUB 16.37 IV 3 NH, KUB 29.20 6 OH/NS, KUB 36.127 rev. 14 MH/MS,

<sup>44</sup> The Etymological Dictionary of the Slavic Languages (ESSJa 25: 110, 114-5, cf. also the notes by V. Trubačev in the Russian edition of Vasmer (Vasmer 1964-73 III: 74-5)) connect OCS (*vъz*)-*niknŋti*, Lith. *su-ninku* etc. with OCS *po-niknonti* 'to droop', Old Polish *niknŋć* 'disappear', Lith. *nykti* 'disappear' and further to Old Russian *nicъ* 'down', Latv. *nīca* 'down the river', Skt. *nīcā* 'below'. It is argued that the semantic difference between these words is due to the preverbs (cf. Bulg. *nikna* that means both 'to grow' and 'to bow', as well as Czech *niknouti* 'disappear' and 'to sprout'). The dictionary gives the following basic meanings for this single root: 'to fall on, run against', 'to rise, grow' and 'to come down, disappear'. But this connection is impossible: the Baltic verbs in *-nìkti* did not have laryngeal in the root and cannot be compared to Skt. *nīcā* (< *\*ni-h<sub>3</sub>k<sup>w</sup>*-, cf. Skt. *ni* 'downwards') and its cognates in Baltic and Slavic languages, see Derksen 2008: 352f.

<sup>45</sup> Note that the electronic version of the *Lietuvių kalbos žodynas* (<http://lkzd.lki.lt/Zodynas/Visas.asp>) gives two more verbs, namely *ap-nìkti* and *į-nìkti* 'to pester, bother' in a separate entry. While synchronically they may be considered homonymous to *ap-ninkù*, *-nìkti* 'to assault, beset' and *į-nìkti* 'to get down to, engage, attack', there is no doubt they go back to same PIE root.

KUB 39.54 rev.? 5 NH, KUB 46.42 Rs III 7, IV 6 NS, Bo 6481 7 NS; [(šar-ni-ik)]-za KBo 6.2 IV 55 OS (with dupl. KUB 6.3 IV 54 -zi) OH/NS

**1pl. pres. act.** šar-ni-in-ku-e-ni KUB 22.57 obv. 4 NH; šar-ni-in-ku-u-e-[ni] KBo 24.123 obv.<sup>?</sup> 2 NS

**2pl. pres. act.** šar-ni-ik-te-ni KUB 13.4 IV 31 pre-NH/NS, KUB 26.19 II 26 MH/MS, KUB 26.40 108 MH/MS

**3pl. pres. act.** šar-ni-in-kán-zi KBo 6.3 II 7, 9, 13 OH/NS, KBo 11.32 obv. 14 OH/NS, KUB 13.9 III 10 MH/NS, KUB 16.39 II 15, 16 NH; šar-ni-en-kán-zi KBo 6.5 II 13 OH/NS; šar-ni-kán-zi KBo 11.32 obv. 8, 47 OH/NS, KUB 50.44 I 8 NH, KBo 13.72 rev. 6 NH, KuSa 1.9 rev. 5 NS

**1sg. pret. act.** šar-ni-in-ku-un KUB 13.35 I 34, II 40 NH

**3sg. pret. act.** šar-ni-ik-ta KUB 14.8 rev.32 NH, KUB 14.14 rev. 12 NH, KUB 31.73 7 NH

**1pl. pret. act.** šar-ni-in-ku-en FHL 2 11 NS

**3pl. pret. act.** šar-ni-in-ker KBo 16.61 rev.? 5 MS?, KUB 14.14 obv. 10 NH; šar-ni-ke-er KuSa 1.3 obv. 16 NS

**3sg. imp. act.** šar-ni-ik-du KBo 3.1 II 52, 55, 59 OH/NS, KUB 11.1 IV 21 OH/NS; šar-ni-ik-tu KBo 16.45 obv. 14 MS, KBo 22.52 II 4, 5 NS

**3pl. imp. act.** šar-ni-in-kán-du KBo 16.61 obv.? 12 MS?

**part. n. sg. c.** šar-ni-in-kán-za KUB 14.29 I 6 NH, KBo 16.6 II 4 NH, KUB 16.66 obv. 16 NH; šar-ni-ik-kán-za KuSa 1.27 9 NS

**part. n.-acc. sg. neut.** šar-ni-in-kán KUB 21.27 IV 36 NH

**Inf.** šar-ni-in-ku-u-wa-an-zi KUB 16.77 III 6 NH; šar-ni-in-ku-wa-an-zi KUB 16.77 III 8 NH

**Verbal noun g.sg.** šar-ni-in-ku-wa-aš KBo 2.2 III 33, 35 NH; šar-ni-in-ku-u-wa-aš KBo 2.2 III 40 NH

**Verbal noun n.pl.** šar-ni-in-ku-e-eš<sup>46</sup> KBo 2.2 IV 8 NH

<sup>46</sup> On this form see Neu 1982: 124f., 147.

**impf. 1sg. pres. act.** *šar-ni-ki-eš-ke-mi* KBo 6.28 rev. 17 NH; *šar-ni-in-ki-iš-ke-mi* KUB 14.14 rev. 8, 21 NH; *šar-ni-in-ki-eš-ke-mi* KUB 14.14 rev. 21 NH; *šar-ni-en-ki-iš-ke-mi* KUB 14.14 rev. 14 NH

**impf. 2sg. pres. act.** *šar-ni-in-ki-iš-ke-ši* KBo 34.22 + obv.<sup>7</sup> 7 OH/MS, KUB 31.133 17 OH/NS, ABoT 44 I 38 OH/NS

**impf. 1pl. pres. act.** *šar-ni-in-ki-eš-ke-u-e-ni* KUB 23.72 obv. 28 MH/MS

**impf. 1sg. imp. act.** *šar-ni-in-ki-iš-ki* KBo 3.1 III 75 OH/NS

**impf. 1sg. imp. act.** *šar-ni-in-ki-iš-ke-ed-du* KBo 6.28 rev. 21 OH/NS, Bo 86/299 II 77 NH

The verb *sarnink-* is usually transitive, but it can also be used absolutely (i.e. with no overt direct object), cf. KBo 6.2 II 54 *šēr=šit=wa šar-ni-ik-mi nu šar-ni-ik-zi* “(If a slave burglarizes a house and his owner says:) I will make compensation for him, he shall make compensation”, see CHD Š: 282 and 285f. for the argument structure of *sarnink-*.

It is likely that the verb has inner-Hittite cognates as well. Kloekhorst (2008: 734f.) suggested that *sarnink-* is related to *sarku-* ‘eminent’ and *sarkiške/a-* (for which only the imperfective stem is attested<sup>47</sup>), which, according to him, means ‘to be good’. As a parallel for the semantic development in *\*sark-* ‘to be good’ > *sarnink-* ‘to compensate’, he cites Dutch *vergoeden* ‘to compensate’, derived from *goed* ‘good’.

The contexts for *sarkiške/a-* can be interpreted in different ways. The Chicago Hittite Dictionary translates *sarkiske/a-* as ‘to ascend(?)’: KUB 24.7 IV 25 MUŠEN *HURRI*<sup>HLA</sup> *araiskanzi* (26) [...] *šar-kiš-kán-zi n=at nepisi* [...] “the shellducks, however, fly up(?), [...] ascend(?) and they [...] into(?) the sky” CHD Š: 267.

According to HEG S: 901ff., there is also an imperfective form *sarkiskesi* in KUB 31.127 I 8ff. *handanza=kan* (9) *antuhsas tuk=pat āssus n=an zik=pat šar-ki-iš-ke-ši* <sup>d</sup>UTU-*uš* “der gerechte Mensch (ist) dir teuer und ihn erhebst du immer wieder, o Sonnengott”. Kloekhorst translates this as ‘When righteous, a man is dear to you, and

<sup>47</sup> Hoffner reads alleged *šar-ki-iz-zi* in KBo 26.30 II 32, translated by Akkadian hapax *šitlû*, as *hūr-zq-ki-iz-zi*, s. CHD Š: 264. Note that *sarkiskanzi* can also be derived from *\*sarkiye/a-* or *\*sarkess-*, cf. Oettinger 1979: 245.



you are therefore always good to him, o Sun-god.’ CHD Š: 273, however, reads the form as *šar-[l]i-iš-ki-ši* from *sarlai-* ‘to exalt’.

While the Hittite data are inconclusive, in my opinion, Kloekhorst’s interpretation of *sarkiške/a-* is supported by its etymology. The comparison with Toch. B *šärk-* ‘to excel?’ (s. Kronasser 1957: 123, 127) allows for reconstruction of the meaning ‘to be good’ for this root. Importantly, the Tocharian verb has a nasal-infix present as well, which would allow for a reconstruction of an infixed present to this root already in PIE, see Peyrot 2013: 540ff. However, the meaning of this verb is not certain, and it could also mean ‘to take care of’, see Malzahn 2010: 939f.

Since Pedersen (1938: 145), *sarnink-* has also been compared to Lat. *sarciō* ‘to repair’ (e.g., LIV: 536, \**serk-*).

Note that the second *-n-* is missing in *šar-ni-kán-zi* KuSa 1.9 rev. 6, *šar-ni-ke-er* KuSa 1.3 obv. 16 and *šar-ni-ik-kán-za* KuSa 1.27 9. It is hardly a mere omission of the sign IN (*šar-ni-<in->kán-zi* and *šar-ni-<in->ke-er*), as the form *šar-ni-ik-kán-za* shows. Such spellings are not confined to the Kušakli texts, but it is remarkable that forms with *-nin-* are not attested in Kušakli. It is likely to be just a coincidence, but one may wonder if this spelling actually reflects a local variety, or perhaps an unconventional orthography of a scribe.

**2.3** In this section, I discuss several other Hittite verbs that contain or may contain the infix *-n-*.

This reflex of the PIE infix differs significantly from the *-ni(n)-* in *sarnink-* ‘to compensate’ etc., on which see above 2.2. The reason for a different development of the infix is not entirely clear. Kloekhorst (2008: 153ff.) argued that in *hamank-/hamink-* ‘to wrap, tie’ and *tamink-* ‘to attach’ the form of the infix was conditioned by the /m/ in the root. As for the other verbs treated in this section, in most cases there are alternative etymologies, which presuppose a radical *-n-*. Therefore, it is *-ni(n)-* that is generally believed to be the regular reflex of the PIE nasal infix.

**hamank-, hamink-** ‘to wrap, tie’

**1sg. pres. act.** *ḥa-ma-an-ga-aḥ-ḥi* KBo 12.96 I 20 MH/NS; *ḥa-ma-an-ak-mi* KBo 23.113 III 20 NS, KBo 33.216 obv. 9 NS; *ḥa-ma-an-ga-mi* KUB 9.31 III 24 MH/NS, KUB 9.32 obv. 10 MH/NS, KUB 41.18 II 12 MH/MS?; *ḥa-ma-an-kám-mi* KBo 13.72 obv. 6 NS; *ḥa-ma-ak-mi* KUB 50.89 II 18 NS; ?[*ḥa-me-*]*in-ki-mi* IBoT 3.99 12 NS

**3sg. pres. act.** *ḥa-ma-an-ki* KBo 4.2 I 28, 31, 34, 36 pre-NH/NS, KBo 5.1 IV 7 MH/NS, KBo 5.2 III 22 MH/NS, KBo 10.41 obv. II 5 MH/NS, KBo 12.112 obv. 6, 7, 9 MH/NS, KBo 35.94 7, 10 NS, KBo 40.133 6 NS, KBo 52.26+ obv. II 40 MH/NS, KUB 9.22 II 27 MH/MS, KUB 11.20 I 6 NS, KUB 24.10 obv. II 5 MH/NS, KUB 47.35 I 13 NS, HT 1 III 14 MH/NS; *ḥa-ma-ak-zi* KUB 24.9 + obv. II 47 MH/NS; *ḥa-ma-an-zi* KBo 25.184 III 3<sup>48</sup> OH/NS, IBoT 2.122 7 NS; *ḥa-ma-an-ga-zi* KUB 4.47 obv. 19, 20 NS

**3pl. pres. act.** *ḥa-ma-an-kán-zi* KBo 21.34 III 43, IV 13, 15 MH/NS, KBo 44.222 12 NS, KUB 1.13 III 5 MH/NS, KUB 10.91 II 4 OH/NS, KUB 17.18 III 16 MH/NS, KUB 39.24 rev. 5 NS, KUB 41.31 II 13 MS?, KUB 43.49 rev.? 13, 15 NS, HT 1 III 15 MH/NS, *ḥa-ma-an-ga-an-zi* KUB 9.31 III 25 MH/NS, KUB 9.32 obv. 11 MH/NS, KUB 41.18 II 13 MH/MS?; *ḥa-am-ma-an-kán-zi* KUB 38.26 obv. 21 NH; *ḥa-me-en-kán-zi* KBo 56.25 5 NS; *ḥa-me-in-kán-zi* KUB 39.14 I 51, 52 OH/NS, KUB 39.7 II 19 OH/NS, KUB 39.8 I 16 OH/NS; *ḥa-mi-in-kán-zi* KUB 2.3 II 24 OH/NS

**1sg. pret. act.** *ḥa-ma-an-ku-un* KUB 58.108 IV 12 MH/NS

**3sg. pret. act.** *ḥa-ma-na-ak-ta* KUB 14.4 II 10 NH; *ḥa-ma-an-kat-ta* KUB 32.133 I 5 NH, KUB 38.32 obv. 7 NS; *ḥa-ma-ak-ta* KUB 26.91 obv. 9 NH, KUB 51.33 I 13 NS; *ḥa-am-ma-ak-ta* KUB 38.23 6 NS; *ḥa-am-mi-in-ga-aš* Bo 3463 II 10 NS

**3sg. pret. mid.** *ḥa-mi-ik-ta* KBo 3.8 + KUB 7.1 III 3, 4, 8, 9, 10, 11, 12, 13, 35, 36, 37, 38, 39, 42 OH/NS, KBo 22.128 + III 3, 5, 6 OH/NS; *ḥa-mi-ik-ta-at* KBo 3.8 + KUB 7.1 III 33, 34, 40, 41 OH/NS, KBo 22.128 III 4 OH/NS, IBoT 3.107 3 OH/MS

**3pl. pret. mid.** *ḥa-me-en-kán-ta-at* KBo 12.100 I 9 NS; *ḥa-me-in-kán-ta-at* KBo 12.100 I 19, 20 NS; *ḥa-me-en-ga-an-ta-at* KBo 12.100 6, 7 NS; *ḥa-me-in-kán-ta-at* KBo 12.100 4, 10 NS

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<sup>48</sup> Kassian, Korolëv, Sideltsev 2002: 102 emend to 3pl. *ḥa-ma-an-<kán>-zi*. But the context is broken, so *hamanzi* may just as well be a phonetically real form rather than a misspelling of /h(a)manktsi/ or /h(a)mankantsi/.

**3pl. imp. act.** *ḥa-ma-an-kán-du* KUB 21.38 obv. 64 NH; *ḥa-me-in-kad-du* KBo 10.45 IV 27 MH/NS; *ḥa-mi-in-kán-du* KUB 41.8 IV 25 MH/NS

**Part. n.sg. c.** *ḥa-ma-an-kán-za* KBo 17.105 III 17, 20 MH/MS, KUB 59.43 I 14 NS; *ḥa-mi-in-kán-za* KUB 27.67 + II 13 MH/NS; *ḥa-me-in-kán-za* KBo 6.3 II 11 OH/NS, KUB 27.67 + III 18 MH/NS; *ḥa-am-me-en-kán-za* KBo 6.5 III 6 OH/NS

**Part. n.-acc. sg. n.** *ḥa-ma-an-kán* KUB 12.51+ I 8 NS, KUB 15.31 II 21 MH/NS, KUB 15.32 II 16 MH/NS, KUB 22.20 2 NS, KUB 33.67 I 15 OH/NS, KUB 42.12 VI 2 NH, KUB 58.107 IV 10 MH/NS; *ḥa-mi-in-kán* KBo 17.15 rev.? 12 OS, KUB 9.28 IV 3 MH/NS, KUB 15.34 I 30 MH/MS, KUB 30.10 obv. 20 OH/MS

**Part. n. pl. c.** *ḥa-ma-an-kán-te-eš* KBo 23.43 + III 10 MS; *ḥa-ma-an-ga-an-te-eš* KUB 45.26 + KBo 27.159 II 13 OH/NS; *ḥa-mi-in-kán-te-eš* KBo 23.74 II 13 OH/MS, KUB 2.3 II 24 OH/NS

**Part. acc. pl. c.** *ḥa-am-mi-in-kán-du-uš* HKM 116 39 OH/NS

**Verbal noun n.sg.** *ḥa-me-en-ku-wa-ar* KBo 1.38 rev. 6 NS

**Verbal noun g.sg.** *ḥa-ma-an-ku-wa-aš* KUB 20.66 III 4 OH/NS; *ḥa-me-en-ku-aš* KUB 42.64 rev. 5 NH, KUB 42.73 obv. 10 NS; *ḥa-me-en-ku-wa-aš* KUB 30.48 14 OH/MS; *ḥa-mi-in-ku-wa-aš* KBo 13.61 rev. 7 NS; *ḥa-mi-en-ku-wa-aš* KUB 42.58 obv. 1 NS

**Impf. 1sg. pres. act.** *ḥa-me-in-ki-eš-ke-mi* KBo 11.11 I 5 NS

**Impf. 3pl. pres. act.** *ḥa-mi-in-ki-iš-ke-er* KBo 3.1 III 48 OH/NS

Melchert (1984: 168) notes that the best translation for *hamank-* would be ‘intertwine, wrap around’. Puhvel (HED 3: 67) also remarks that *hamank-* has a more restricted meaning than *ishai/ishi-* ‘to tie’.

The alteration *-a-/-e-/-i-* in the root is rare, and the distribution is as follows. In the singular present and preterite active we find *-a-*, with the sole exception of *ḥa-am-mi-in-ga-aš* in Bo 3463 II 10 (NS). In the middle voice, we have *-i-* and *-e-*. Elsewhere, both *-a-* and *-i-/-e-* are frequent. The only Old Script attestation, *ḥa-mi-in-kán* KBo 17.15 rev. 12, shows *i*, which would suggest that *hamink-* was the original stem of the participle (and 3<sup>rd</sup> plural). The forms with *-e-* occur usually in NH and NS

texts, with the exception of *ḥa-me-en-ku-wa-aš* KUB 30.48 14 (OH/MS); on this topic see further 2.4. Such a distribution suggests that *hamank-* corresponds to the strong stem and *hamink-* corresponds to the weak stem. Note nevertheless that the stem *hamink-* is attested in Old Hittite texts and its copies, while *hamank-* only appears in Middle Hittite texts and its copies.

The double *-mm-* is probably graphic (s. Kimball 1999: 97f.). It is not easy, however, to find a motivation for a more complicated spelling. I assume that this spelling was introduced to show that the first *-a-* was phonetically real, even if it is of secondary origin (on the epenthesis in the anlaut consonant clusters, see Kassian, Yakubovich 2002); under this view, *-mm-* in *hammankanzi* becomes comparable to *-mm-* in *dammeshā-* ‘punishment’ < *\*demh<sub>2</sub>-sh<sub>2</sub>ó-* as compared to single *-m-* in *damāss/damess-* ‘to oppress’ < *\*dmeh<sub>2</sub>s/dmh<sub>2</sub>s-* (for the etymology of these words see Kloekhorst 2008: 822f., 825f.)

It is remarkable that /n/ is often spelled in *hamank-* before a consonant cluster, cf. e.g., 3 Sg. Pres. *ḥa-ma-an-ga-zi* KUB 4.47 obv. 19, 20 NS, 3 Sg. Pret. *ḥa-ma-an-kat-ta* KUB 38.32 obv. 7 NS, KUB 32.133 I 5 NH. In this respect, *hamink-* differs from verbs with the infix *-nin-* and also *tamink-* ‘to attach’ that are generally believed to have an infix and always have /n/ omitted before a consonant cluster other than /kw/. By contrast, *hamank-* often keeps /n/ in this position in Middle and New Hittite, similarly to *link-* ‘to swear’, *nink-* ‘to get drunk’ etc., see further 2.1.4-5.

The root etymology for *hamank/hamink-* is established beyond reasonable doubt. It is related to Gr. ἄρχω ‘to squeeze, bind’, Lat. *angō* ‘to bind, press together’, Skt. *āmhas-* ‘narrowness’ (Pokorny 1959: 42f.) and goes back to PIE *\*h<sub>2</sub>emǵ<sup>h</sup>-* ‘to lace, tighten’ > ‘to restrict, confine’ (HEG A: 142f., LIV: 264f.). According to Gonda 1957: 33ff., the meaning of *\*h<sub>2</sub>emǵ<sup>h</sup>-* was rather ‘(to be) narrow’. It is important that no infixed formations to this root are attested in other IE languages<sup>49</sup>.

<sup>49</sup> Alternative etymologies have been proposed. Schmitt-Brandt (1967: 108) and Melchert (1984: 168) compared *hamank-* to PIE *\*menk-* (German *mengen* ‘to mix’). The alleged prefix *\*h<sub>3</sub>e-* was found in Hittite *hatk-* ‘to shut’ < *\*ha + \*teg-* ‘to cover’. But this etymology is implausible, since *\*menk-* rather means ‘to press, knead’, and there is no reliable independent evidence for the prefix *\*h<sub>3</sub>e-* (later, Melchert adopted another etymology for *hatk-*, s. Melchert 1994: 64).

Pedersen (1938: 197) connected *hamank-/hamink-* to the root *\*anǵh-* indirectly, via a variant *\*Hwanǵh-* that could be seen on OCS *vezati* ‘to bind’. The provenance of the initial /v/ in the Slavic verb is unclear; it is believed to have been added in analogy to OCS *viti* ‘to twine, wind’ or as a way to avoid hiatus (being a form parallel to the standard variant *oꝛꝓ*

By contrast, the prehistory of the attested stem *hamank-/hamink-* remains disputed. Van Brock (1962: 32) argued that *hamank-* (along with *tamink-* ‘to attach’) continues an infixed present stem. While this proposal has gained wide recognition (e.g., Oettinger 1979: 148-9, HED 3: 67-8, LIV: 264-5), the exact details are unclear.

One of the problems with van Brock’s account is different development of the allegedly parallel formations *tamink-* and *hamank-*, which show different vocalism and belong to different conjugations.

Another problem is that in contrast to *nin-*verbs and *tamink-* that follow the *mi-* conjugation, *hamank-* has forms of both the *hi-* and *mi-* conjugation. The *mi-* conjugation endings in 1sg. pres. and pret. of this verb may be explained as an attempt to avoid *-kh-* clusters, see further 2.1.4, while *-ta* in 3sg. pret. usually occurs in texts that seem to be New Hittite. On the contrary, instances of 3sg. pres. *hamanki* are much more numerous than *hama(n)kzi* and difficult to explain as late and/or secondary. Therefore, it appears that this verb originally belonged to the *hi-* conjugation (cf. Melchert 1984: 167f., Kloekhorst 2008: 279).

According to the classical reconstruction of PIE infixed stems, one would expect a nasal present made to the root  $*h_2em\acute{g}h-$  to be  $*h_2mn\acute{e}g\acute{h}-ti/*h_2mn\acute{g}h-\acute{e}nti$ , which in Hittite would have yielded something similar to  $*hammikzi/*h(a)manganzi$ , with the *e*-grade in the strong stem and the *a*-grade in the weak stem. These hypothetical forms match neither the ablaut (*a-* in the strong stem and *-i-* in the weak stem), nor the conjugation type of the actually attested forms. In my opinion, all the attempts to derive *hamank-/hamink-*<sup>hi</sup> from  $*h_2mn\acute{e}g\acute{h}-ti/*h_2mn\acute{g}h-\acute{e}nti$  are implausible. Therefore, *hamank-/hamink-* cannot be a regular development of a PIE nasal infix stem, unless one operates with a chain of unparalleled and ad hoc analogical levellings<sup>50</sup>.

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‘to narrow down’ (cf. Vasmer 1964-73 I: 374). Nevertheless,  $*Hwon\acute{g}h-$ , whatever its origin might be, could hardly develop into  $*hmonk-$ , reflected in Hitt. *hamank-*.

<sup>50</sup> Cf. the development of these forms according to Puhvel (HED 3: 67-8): “...  $*A_1m-n-\acute{e}g\acute{h}-ti > *hamnekzi$  and weak forms in  $*A_1mm-n-\acute{g}h-$ ’, e.g., 3 Pl. pres. act. *hamankanzi*. From the latter type were formed new analogical paradigms (cf. Skt. *yujjāti* and Lat. *iungō* from  $*yu-n-g-$ ), thus *hamangahhi* after the model of *gangahhi* (from *gank-*) and *hamankun* following, e.g., *linkun* (from *link-*). After the restoration of the weak grade in the form  $*nen-$  ( $*hamnekzi$  :  $*hamnenkanzi$ , like, e.g., *sarnikzi* : *sarninkanzi*), phonetic change ( $*mn > m[m]$ ) once more ruined the paradigm, yielding  $*ham(m)ekzi$  :  $*ham(m)enkazi$ ; the strong form is seen in *hamikta*, and the weak ones remained as alternatives to *hamank-* (as in, e.g., *hamankanzi* : *hamenkanzi*, *hamankant-* : *ham[m]enkant-*), creating the illusion of a : e ablaut.” There are multiple objections to this view. To name a few: the weak stem in OS was *hamink-* (*ha-mi-in-kán* KBo 17.15 rev. 12); the geminated *-mm-* <  $*-mn-$  in spellings of both *hamank-* and *tamink-* occurs only in NS texts, though under Puhvel’s theory

Recent etymological accounts of this verb start with the assumption that *hamank-/hamink-* is a *hi*-conjugation verb with a reflex of an *\*ó*-grade in the singular, even though there are no attested forms with a plene spelling *\*\*ha-ma-a-an-ki*. The lack of such spellings is not surprising, as we would expect to see them mainly in OS texts<sup>51</sup>, in which the relevant forms of *hamank-* are not attested. Kloekhorst (2008: 279f.), therefore, reconstructs the preform of *hamank-/hamink-* as *\*hmónǵ<sup>h</sup>-/\*hmnǵ<sup>h</sup>-*<sup>52</sup>, with the ablaut *\*-ó-/ø*, typical for the *hi*-conjugation, and an anaptyctic /i/ in the cluster *\*CNNC* (ibid. 60f., 154f.)<sup>53</sup>. Alternatively, Melchert (2013b: 138ff.) argues against the anaptyctic /i/ (cf. also Kloekhorst 2014b) and assumes the ablaut *\*-ó-/é-* (ibid. 141) of the type postulated by Jasanoff (e.g., 2003: 69ff.).

Since the stem *hamink-* is usually spelled with *-i-* in OS and MS texts<sup>54</sup> (4x with *-i-* vs. 1x with *-e-*, *ha-me-en-ku-wa-aš* KUB 30.48 14 MS), *hamink-* hardly contains the anaptyctic /i/ pace Kloekhorst. However, if *hamank-/hamink-* reflects *\*hmónǵ<sup>h</sup>-/\*hménǵ<sup>h</sup>-*, one has to assume that a non-ablauting infix *-n-* was inserted into a stem *\*hmóǵ<sup>h</sup>-/\*hméǵ<sup>h</sup>-*<sup>55</sup>, and the resulting formation ended up in the *hi*-conjugation in Hittite. While it cannot be excluded that there were two different types of infixed stems in PIE, I do not think that the peculiar case of *hamank-/hamink-* is enough to justify a reconstruction of a distinct *hi*-conjugation nasal-infix class<sup>56</sup>.

Note that pre-Hittite *\*hmonǵ<sup>h</sup>-/\*hmnǵ<sup>h</sup>-* could be the source of *hamank-/hamink-*. Even though there is no indication of the anaptyctic vowel in the weak stem *hamink-* (see above), in my opinion there is another possible case where *CminC-* reflects

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it should have been spelled regularly in OS and MS texts as well, as in, e.g., *gimm(ant)-* ‘winter’ (cf. Melchert 1994: 153; Kimball 1999: 321f.).

<sup>51</sup> In later periods, the plene spelling is often omitted, cf. *kank<sup>-hhi</sup>* ‘to hang’, with plene spellings (e.g., *ka-a-an-ki*) attested only in OS texts.

<sup>52</sup> The expected outcome of a syllabic /n/ is *-an-* and perhaps *-a-*, for the discussion see Kimball 1999: 243ff., 252f., therefore *\*h<sub>2</sub>mnǵ<sup>h</sup>-* should have developed into *h(a)mank-*. Theoretically, 3pl. pres. *hamankanzi* (e.g., KUB 10.91 II 4 OH/NS) may go back to such a stem as well, but it is attested in the Middle Hittite texts at the earliest, whereas *haminkanzi* occurs in the copies of Old Hittite texts. Still, as a mere speculation, if *h(a)mank-* reflects *\*h<sub>2</sub>mnǵ<sup>h</sup>-*, *hamink-* could be originally a distinct middle stem with an *e*-grade.

<sup>53</sup> Similarly, Oettinger (1979: 139f.) argued that in the weak stem of some verbs there was an insertion of an anaptyctic vowel rather than vocalization of a sonant, e.g., *linganzi* instead of *\*alnganzi* < *\*h<sub>1</sub>lǵ<sup>h</sup>-énti*. Melchert (1994: 71) also suggested that there were no vocalization of the sonant in the weak stem *\*dmh<sub>2</sub>s-* of the verb *damass-/damess-*.

<sup>54</sup> For the alteration of *-i-* and *-e-* in New Hittite forms cf. 2.4.

<sup>55</sup> Note that *\*hmóǵ<sup>h</sup>-/\*hméǵ<sup>h</sup>-* shows a Schwebe-ablaut next to *\*h<sub>2</sub>emǵ<sup>h</sup>-*, attested in other languages, cf. LIV: 264f. Cf. further 2.4.6.

<sup>56</sup> The *hi*-conjugation of some other infixed verbs (*tarna<sup>-hhi</sup>* ‘to let go, allow’, *sanna<sup>-hhi</sup>* ‘to conceal’, *sunna<sup>-hhi</sup>* ‘to fill’) can be explained differently; besides, none of these verbs reflects the ablaut *\*-ó-/é-*. See also 6.3.5. below.

\**CmnC-*, namely, *tamink-*. This is a *mi*-conjugation verb and it is not supposed to have an *e*-grade in the weak stem, but such an interpretation seems to be the only possible option for the forms like *ta-mi-in-kán-za* KBo 15.28 obv. 12 MS or *ta-mi-in-kán-ta-r[i]/a[n]* KBo 15.33+ I 7 MH/MS. Unless *tamink-* goes back to a Narten present, which is unlikely, it can hardly reflect a morphological *e*-grade, and I have to assume that there was some kind of specific development in the weak grade \**tmnk-*, which could be applicable to \**h<sub>2</sub>mnk-* as well. Recently, Kloekhorst (2014: 69f.) has argued that \*(C)*rnk-* yields \*(C)*rink-*, so *hamink-* may well be a phonetically regular outcome of the weak stem \**hmnġ<sup>h</sup>-*.

Summing up, there is little doubt that the verb *hamank-/hamink-* goes back to PIE \**h<sub>2</sub>emġ<sup>h</sup>-* ‘narrow’ (Gonda) or ‘to tighten’ (LIV). The details remain obscure, however. Both hypothetical stems \**hmónġ<sup>h</sup>-*/\**hmnġ<sup>h</sup>-* and \**hmónġ<sup>h</sup>-*/\**hménġ<sup>h</sup>-*, either of which could yield *hamank-/hamink-* in Hittite, are not compatible with an expected PIE infixed stem \**h<sub>2</sub>mnéġ<sup>h</sup>-*/\**h<sub>2</sub>mġ<sup>h</sup>-*.

Since there are no infixed formations to this root attested in other IE languages, *hamank-/hamink-* is very likely to be a post-PIE, that is, a proto-Anatolian or a proto-Hittite development. Some other examples of post-PIE infixed stems in Anatolian and other branches could be OE *standan* ‘to stand’ (\**steh<sub>2</sub>-*, LIV: 591, but cf. Kroonen 2013: 473), OCS *ležo* ‘to lie down’ (\**leg<sup>h</sup>-*, LIV: 398) and Hitt. *galank-* (see the respective entry below).

Alternatively, /n/ in \**h<sub>2</sub>monġ<sup>h</sup>-* could result from a secondary nasalization. Insertion of a nasal before a stop is in no way regular in Hittite, but it also is not unknown, cf., e.g., *salig-* ‘to touch’ with a single nasalized form *ša-li-in-kán-zi* in KBo 29.133 III 2 (Oettinger 1994: 319<sup>54</sup>). The insertion of /n/ in \**h<sub>2</sub>moġ<sup>h</sup>-* could have been triggered by the preceding /m/, cf. the unetymological /n/ in *zamankur* ‘beard’ and *samankurwant-* ‘bearded’; in *hamank-* this secondary -n- could have been reanalyzed as a part of the root. However, to my knowledge, there are no certain examples of such an irregular /n/ to be generalized through the whole paradigm.

While both suggested scenarios for the appearance of /n/ in *hamank-/hamink-* are hypothetical, I conclude that this verb is not a direct reflex of a PIE verbal stem.

**hinik/hink-** ‘to grant, bestow’

**1sg. pres. act.** *hi-ik-mi* KBo 22.118 9 NS, KUB 33.27+ I 38 MS; *hi-in-ik-mi* KUB 33.112+ III 14 NS, KUB 36.5 I 2 NS, HT 25+ rev. 2; [*hi-i*]*n-ga-mi* KBo 29.2 II 8 NS

**2sg. pres. act.** *hi-in-kat-ti* KUB 56.19 I 15 NS

**3sg. pres. act.** *hi-ik-zi* e. g. KBo 2.3 II 49 MH/NS, KUB 9.28 II 24 MH/NS, KUB 17.18 I 21 NS, KBo 39.8 III 40 MS, KUB 35.54 II 29 MS; IBoT 1.36 II 25, IV 20 MH/MS; *hi-in-ik-zi* KUB 7.5 I 20 MH/NS, HT 39 rev. 14 NS; *hi-in-ga-zi* KBo 5.1 I 40 MH/NS

**1pl. pres. act.** *hi-in-ku-wa-ni* KUB 17.28 I 11 NS

**3pl. pres. act.** *hi-in-kán-zi* e. g. KBo 6.3 III 64 OH/NS, KBo 10.20 I 35 NS, KBo 11.18 V 16 NS, KBo 21.1 III 5 NS, KUB 17.27 II 9, KUB 17.35 III 15 NH, KUB 22.70 rev. 64 NH; *hi-in-ga-zi* KBo 6.3 III 67 OH/NS

**1sg. pret. act.** *hi-in-ku-un* KBo 3.6 II 13 NH

**3sg. pret. act.** *hi-ni-ik-ta* KBo 3.7 II 23 OH/NS, KUB 34.16 III 4 NS; *hi-ik-ta* KBo 21.13 IV 8 MH/NS; *hi-in-ik-ta* KBo 16.83 III 5 NS; *hi-in-kat-ta* KBo 3.34 II 3 OH/NS, KUB 8.45 obv. 6 NS; *he-en-ik-ta* KBo 6.29 I 21 NH

**1pl. pret. act.** *hi-in-ku-u-e-en* KUB 36.82 6 NS

**3pl. pret. act.** *hi-in-ker* KBo 3.55 obv. 3 OH/NS

**2sg. imp. act.** *hi-in-ga* KBo 5.9 III 16 NH

**3pl. imp. act.** *hi-in-kán-du* KUB 13.2 III 41 MH/NS, KUB 31.84 III 69 MH/NS

**inf.I** *hi-in-ku-wa-an-zi* KBo 11.73 obv. 6 OH/NS

**impf. 3sg. pres. act.** *hi-in-ki-iš-ke-ez-zi* KUB 35.54 II 18 MS

According to Hart (1976), the form *hi-ni-ik-ta* in KUB 34.16 III 4 and KBo 3.7 II 23 is to be distinguished from *hink-* ‘to grant’ and belongs to *hinik-* ‘to moisten’ with the infix *-nin-*, cf. also HED 3: 315f. As I argued in Shatskov 2010, both these forms belong to *hink-*. My arguments are as follows. First, the spelling *hi-ni-ik-* is rare but still attested for *hink-*, cf. KUB 57.91 rev. IV 5 *I-NA* UD.2.KAM [] (6) 1 UDU *hi-ni-*



ik[- “in the 2<sup>nd</sup> day ... consign(s) one sheep”. Second, Hart argued that *hinikta* in KBo 3.7 II 23 must be a 3sg. pres. middle rather than a 3sg. pret. act. and thus it cannot belong to *hink-*, but this is not valid as well, as we have another preterite form, *ú-e-ek-ta*, in a similar context in the next sentence<sup>57</sup>.

Therefore, the forms *hi-ni-ik-ta* and *hi-ni-ik[-* belong to *hink-* ‘to grant’. However, *hi-ni-ik-* must be a distinct stem rather than just a graphic variant of *hi-in-ik-*. Indeed, there are rare spellings like *ša-na-aḥ-ti* (KBo 4.414 II 37 et passim, Tudh. IV or Supp. II) vs. common *ša-an-aḥ-ti* or *wa-la-aḥ-zi* (e.g., KBo 17.43 I 12, 13 OS) vs. *wa-al-aḥ-zi*. Nevertheless, to my knowledge, there is only one other instance of a similar alteration for -NI-/IN-, namely 1sg. *ta-me-ni-ik-mi* Bo 3445 11 MS; 3sg. *da-mi-ni-ik-zi* KBo 17.105 IV 3 MH/MS and 3pl. *ta-me-ni-kán-zi* KBo 20.116 Rs (?) 10 MH/NS; as I will argue in the respective entry, there are reasons to distinguish *tamenik-* as a separate stem.

Now, KUB 34.16 III 4 and KBo 3.7 II 23, where *hi-ni-ik-ta* is attested, are NS copies of Old Hittite texts. Therefore, *hinik-* may be an archaism, reflecting a full grade of the infix, similarly to *tamenik-* under the analysis proposed here. Fully parallel to *tamink-* and *tamenganu-* there is *hinganu-*, a *nu*-verb derived from *hink-*. This would mean that the variation -ni/n- of the infix was abandoned in these two verbs and -n- of the zero grade was reinterpreted as a part of the root, cf. 2.5.3 below. In *hink-*, this must have happened earlier, as we find *hinganu-* in the copies of Old Hittite texts, though it sometimes alternates with *hink-*, cf. *hinganuanzi* in KBo 21.108+ V 5 and *hinkuwanzi* in dupl. KBo 11.73 obv. III? 6, both OH/NS.

Thus far no fully compelling etymology for *hink-* ‘to grant’ has been found, see Kloekhorst 2008: 269ff. If -ni/n- is an infix and does not belong to the root, *hink-* may be compared to Goth. *aigan* ‘to own’, Skt. *īśe* ‘to possess’ and Toch.B *aik-* ‘to know’, PIE *\*h<sub>2</sub>eik-*, see LIV: 223, Kroonen 2013: 8, Adams 2013: 107f. Since infixes

<sup>57</sup> KBo 3.7 II 21 H<sup>UR.SAG</sup>Zaliyanū hūmandas han[tezzis<sup>?</sup>] (22) mān INA<sup>URU</sup>Nerik hēuš (23) hi-ni-ik-ta nu<sup>URU</sup>Neriggaz (24) LÚ<sup>GIŠ</sup>PA NINDA harsin pēdāi (25) nu<sup>HUR.SAG</sup>Za[lin]ū heiūn ú-e-ik-ta (26) n=an=si NINDA [...]x pēdai “(The divine mountain) Ziliyana is first (in rank) of all (the gods). When he has allotted rain to (the town of) Nerik, the herald brings forth a loaf of *harši*-bread from Nerik. He had asked Zaliyanu for rain, and he brings it to him [on account of?] bread...” (Beckman 1982: 19).

often have a causative meaning (see 7.2.3), *hink-* ‘to grant, bestow’ would be a plausible match for the root meaning ‘to own’.

Hitt. *hink-*<sup>a</sup> ‘to bow’ has sometimes been viewed not as a different verb, but as a result of a semantic development from *hink-* ‘to grant’ (HED 3: 295f., Garcia-Ramon 2001: 135f., Kloekhorst 2008: 269f.). I, however, follow Oettinger (1979: 176f.) in assuming that *hink-*<sup>a</sup> is related to Skt. *ac-*, *añc-* ‘to bend’, PIE *\*h<sub>2</sub>enk-*, cf. also LIV: 268 and the entry for *hinganu-* ‘to bow’ in 4.1.

**galank-** ‘to soothe’

**3sg. imp. act.** *ka-la-an-kad*<sup>58</sup>-*du* KUB 33.68 III 15 OH/MS

**Part. n.sg. c.** *ka-la-an-kán-za* KBo 17.105 III 16 MH/MS; *ka-la-a-an-kán-za* KUB 24.2 I 13 NH; *ka-la-an-ga-an-za* KBo 45.247 IV 6 NS; *ga-la-an-kán-za* KBo 16.24 + 25 I 46 MH/MS, KBo 16.102 I MH/NS; *ga-la-an-ga-an-za* KBo 15.1 I 37 NS; *ga-la-an-ga-za* KBo 15.1 I 18 NS

**Part. n.pl. c.** *ga-la-an-kán-te-eš* KBo 15.10 I 32 MH/MS, KBo 34.46 II 3 MS?

The only attested finite form, *ka-la-an-kad-du*, preserves *-n-* before a consonant cluster. Oettinger (1979: 149) and Kloekhorst (2008: 428) assign this verb to the *hi*-conjugation, despite its *mi*-conjugation ending, for the following reason: the vocalism *-a-* in the root is characteristic of *hi*-verbs (*kānk/kank-*), while *mi*-verbs made from roots with a similar auslaut display *-i-* (*link-*, *nink-*). In my view, *galank-* may just as well be a *mi*-conjugation verb, reflecting a zero grade *\*glnĝ-*. Other likely examples of the zero grade of the infix are *tamink-* ‘to attach’, *link-* ‘to swear’ and *unh-* ‘to clean’, see the respective entries and 2.4.4-5.

The verb *galank-* and the related noun *galaktar* ‘soothing substance, balm’ are usually compared to Gr. γάλα(κτ)- ‘milk’, Lat. *lac(t)-* ‘milk’, Lith. *glėžnas*, ON. *klökr* ‘tender’. The PIE root can be reconstructed as *\*gleĝ-* (HED 4: 19) or *\*gleĝ<sup>h</sup>-* (Kloekhorst 2008: 428), and *galank-* would then reflect *\*gl-ŋ-ĝ/ĝ<sup>h</sup>-*. The derivational

<sup>58</sup> The reading *-kid<sub>g</sub>-* in the online edition by Rieken at the HPM website is unlikely, see Hoffner, Melchert 2008: 18, note 22. The vowel here must be graphic in any case.

history of *galaktar* is a matter of discussion. Kammenhuber (1954: 418), Kronasser (1966: 89) and Rieken (1999: 379ff) assume that /n/ was lost in *galaktar*. However, we have already seen that in Middle Hittite /n/ could have been restored in this environment, as can be seen, e.g., in *kalankaddu*. The complete lack of -n- in forms of *galaktar* seems to support Puhvel's suggestion (HED 4: 19f.) that *galaktar* was derived from an infixless verbal stem. Carruba (1994: 51) analyzed *galaktar* as *\*gleĝ-t-ŕ* and assumed a PIE age for the stem *\*gleĝ-t-*. The problem with this reconstruction is that *\*e* in *\*gleĝ-t-* could not yield -a- in *galaktar*. Rieken (1999: 379f.) argues that the suffix was *\*-tro-*. In Hittite, this suffix is found also in *sāwītra-*, *sāwātar* 'horn', but this word might be a Luwian borrowing, for the discussion see Kloekhorst 2008: 740f. Whatever the suffix in *galaktar* might be, this noun is hardly a derivative of the attested verbal stem *galank-*.

There are no verbal forms attested for this root in other Indo-European languages; therefore it is likely that *galank-* was formed in Anatolian or Pre-Hittite. For similar conclusions regarding *hamank/hamink-* see the respective entry and cf. 2.4.5.

**kunk-** 'to sway?'

**1sg. pres. act.** *ku-un-ku-u-e-ni* KUB 14.10 IV 20 NH, ?KUB 24.4 obv. 13 MH/MS (*ku-un-ku[-]*)

**Part. n.-acc. sg. n.** *ku-un-ga-an* KBo 22.112 3 NS, KUB 7.10 I 6 n.A., KUB 42.94+ IV 13' NS, KUB 43.42 3' NS

**Impf. 1sg. pres. act.** *ku-un-ku-uš-ke-nu-un* KBo 20.82 II 14 OH/NS

**Impf. 3sg. pres. mid.** *ku-un-ki-iš-kán-ta-ri* KUB 29.1 III 44 OH/NS

**?Impf. 3sg. imp. act.** *ku-un-ku!-uš-k[án-du]* KUB 13.2+ III 52 MH/NS

**Supine** *ku-un-ki-eš-ke-u-wa-an* KUB 24.7 IV 39 NS, KUB 33.93+ III 13 NS; *ku-un-ki-iš-ke-u-wa-an* KUB 36.60 + 24.8 III 7 OH/NS

**kun(n)ikunk-:**

**Impf. 3sg. pres. mid.** *ku-un-ni-ku-un-ki-iš-ke-et-ta* KBo 10.24 III 10 OH/NS

The meaning of this verb is elusive. The following translations have been suggested: ‘to rise’ (Oettinger 1979: 179, Neu 1968: 102), ‘to clean(?)’ (Hoffner 1998: 58), ‘to lock, shut’ or ‘to hide’ (HEG Š: 984). Taracha (1999: 676ff. and 2000: 130ff.) argued that *kunk-* means ‘to look at’ and ‘to secure’ (with *anda*). So far the most plausible interpretation has been Puhvel’s ‘to sway, shake’ (HED 4: 250), as it fits or is at least acceptable in the majority of contexts, in which *kunk-* is attested.

The contexts are as follows:

KUB 14.10 IV 19-20: *nu=kan* <sup>URUDU</sup> *ZI.KIN.BAR-as* <sup>GIŠ</sup> *sarpaz kunkuweni* is translated by CHD as follows: “(It must be found out why there is dying.) We are dangling on the point of a needle”.

*Kunk-* is found in other ritual texts, including the ritual for the foundation of a temple (CTH 414): KUB 29.1 III 41-44: *nu=ssan DINGIR*<sup>MEŠ</sup> *esantari, nu=za=an É-as BELU*<sup>MEŠ</sup> <sup>-TIM</sup> *LUGAL-us MUNUS.LUGAL-s=a DAM*<sup>MEŠ</sup> *pahhuwarses esantari n=at=za=kan sāsas mahhan kunkiskantari* “The gods are seated; the housemasters, king and queen, the morganatic wives [and] children, take their seats and they sway<sup>59</sup> like wild goats” (see HED 4: 249, sim . CHD Š: 301).

In mythological texts, this verb is used several times in supine constructions with *dai-/ti-* or *tiye-*. Here the meaning ‘to dangle, sway’ is contextually plausible as well, cf. KUB 33.93 III 12-4 [<sup>D</sup>*Kumar*]*bis=za a[si] DUMU.NITA-an duskiskewan dā[is n]=an kunkeskewan [dāis]* “Kumarbi began to rejoice in this son and started dandling him” (HED 4: 249), cf. also KUB 24.7 IV 39 *n=an kunkeskeuwan dāis* and KUB 36.60 + 24.8 III 7 *n=an kunkiskewan dāis*.

However, there are passages where the meaning ‘to shake, sway’ fails to persuade:

KUB 7.10 I (dupl.to KUB 42.94+ rev. IV 10ff., CTH 448) 1 *kāsa apēdani uddani* (2) *pedi kūs tarpaliyēs* (3) *karū arandari* (4) *nu=wa=za kūs sikten apūs=wa=za* (5) *namma lē sekteni* (6) *AŠRU=wa=kan karū anda ku-un-ga-an* “These substitutes are already standing in (this) place for that matter. So pay attention to these. Do not pay attention to those. The place has already been *k.-ed*”.

<sup>59</sup> For the interpretation of Hitt. *sāsa-* as ‘wild goat’ see recently Oettinger 2015.

Kümmel (1967: 129f.) leaves *kungan* without interpretation: “Die Stätte ist bereits früher ge....t”. Taracha (2000: 51) gives the following translation: “Die Stelle ist schon längst ‘gesichert’<sup>?</sup> worden”.

The meaning “to shake, sway” can hardly pass here, cf. Puhvel’s translation “The pit [has] already [been] broken in” in HED 4: 249. He assumes a special meaning for *anda kunk-* ‘to prepare’, literally ‘to shake in’, which, however, besides this passage is only found in KUB 13.2+ III 52 in a poorly preserved context (cf. Miller 2013: 230f., 384); in addition, the proposed semantic development is dubious.

Another obscure context is KBo 10.24 III 9-10: *lamniy=as seszi ta=as=za ku-un-ni(-)ku-un-ki-iš-ke-et-ta*. Singer (1983: 61) renders this passage as follows “it [thread<sup>?</sup> (*kapnuessar*)] rests for an hour and then it rises gradually (or rises to the right)<sup>?</sup>”. Puhvel translates this as “it lies still for a while; then it is shaken vigorously”. Note that while *kunnikunk-* can be plausibly analyzed as a reduplicated stem of *kunk-* (cf. *pariparai-* and *parai-* ‘to blow a horn’), it may also be two separate words, *kunni* ‘to the right’, and and a form of *kunk-*. Finally, one more obscure passage is KBo 20.82 II 14 (CTH 434) LUGAL MUNUS.LUGAL *kunkuskenun*<sup>60</sup> ‘I k.-ed king (and) queen’. Unfortunately the context is lost.

Summing up, the meaning ‘to shake, sway’ works well for most passages. Still, it is hardly applicable in KUB 7.10 I 6 and does not make much sense in KBo 20.82 II 14 “I swayed king (and) queen”.

Syntactically, *kunk-* shows different properties in various passages. In KUB 14.10 IV 19-20, *kunk-* is obviously intransitive. By contrast, in KBo 20.82 II 14 *kunkuskenun* is transitive, as are all the usages with supine. There are some labile verbs in Hittite that may be used both transitively and intransitively, e.g., *wahnu-* ‘to make turn, encircle, swing’, but they are not numerous.

The etymology of *kunk-* depends on its interpretation. If we stick to the meaning ‘to rise’, then the connection to Skt. *śvañc-* ‘to bow down’, *uc-chvañc-* ‘to stand up’ is possible (Oettinger 1979: 180, LIV: 340f.). If we accept Puhvel’s translation, then his

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<sup>60</sup> We would expect to see /i/ or /e/ here, i.e. *\*\*kunke/iskenun*, cf. Neu-Otten 1972: 186<sup>9</sup>. Puhvel (HED 4: 249) suggests that this could be a reduplicated stem *kun-ku(nk)-ske-*. Cf. also *ku-un-ku!-uš-k[án-du]* in KUB 13.2+ III 52.

connection of *kunk-* to Gr. κυκάω ‘shake’ and PIE *\*kéuk-* (HED 4: 250) is acceptable<sup>61</sup>. Nevertheless, without an established meaning any comparison necessarily remains tentative.

**link-** ‘to swear’

**3sg. pres. act.** *li-ik-zi* KBo 3.29 16 OH/NS, KBo 6.2 IV 3 OS, KUB 7.1 II 12 pre-NH/NS, KUB 36.127 rev. 16 MH/MS, KUB 40.88 III 17 NH; *li-in-ga<sup>?</sup>-zi* KBo 6.3 III 75 OH/NS, KBo 15.1 II 7 NS, KUB 43.76 rev. 5 NS; *li-in-ik-zi* KUB 54.1 II 13 NS

**1pl. pres. act.** *li-in-ku-u-e-ni* KUB 31.42 III 16 MH/NS; *li-ku-wa-an-ni*<sup>62</sup> HT 1 I 34 MH/NS with dupl. KUB 9.31 I 42 MH/NS; *le-en-ku-u-e-ni* VS NF 12.125 7 NS

**3pl. pres. act.** *li-in-kán-zi* KUB 13.13 rev. 5 OH/NS (dupl. to *li-ik-zi* KBo 6.2 IV 3 OS), KUB 17.21 IV 15 MH/MS

**1sg. pret. act.** *li-in-ku-un* KBo 9.73 obv. 3 OS?/MS?, KUB 13.35 I 30 NH, KUB 14.3 I 33 NH, KUB 30.10 obv. 12 MH/MS; *le-en-ku-un* Bo 299/1986 II 4

**3sg. pret. act.** *li-ik-ta* KBo 4.14 IV 53 Tudh. IV, KBo 9.73 obv. 2 OS, KUB 14.1 obv. 27 MH/MS, KUB 26.32 I 4 NH; *li-in-ik-ta* KBo 4.3 II 28 Murš. II, KUB 5.6 IV 22 NH; *li-in-kat-ta* KBo 4.7 III 11 Murš. II, KUB 6.41 III 52 Murš. II, KUB 7.41 I 12 MS?, KUB 21.7 III 6 NH; *le-en-kat-ta* KUB 21.37 obv. 25 NH, Bo 299/1986 II 38 NH; *li-in-kán<sup>1</sup>-ta* KUB 13.35 I 9 NH; *li-in-ke-eš-ta* KUB 14.14 obv. 15 Murš. II

**1pl. pret. act.** *li-in-ku-en* KUB 36.106 obv.6 OS?/MS?; *li-in-ku-u-en* KUB 23.29 8 NH; *le-en-ga-u-en* HT 1 I 43 MH/NS

**3pl. pret. act.** [*li-i*]*n-ke-er* KBo 8.35 II 28 MH/MS; *li-in-ker* KBo 16.27 II 3 MH/MS, KUB 23.59 I 4 NS

**2sg. imp. act.** *li-i-ik* KBo 4.14 I 41 Tudh. IV; *li-in-ki* KUB 14.3 II 6 NH

**3sg. imp. act.** *li-ik-du* KBo 4.14 IV 54 Tudh. IV

**2pl. imp. act.** *li-ik-te-en* KBo 16.27 II 5 MH/MS; *le-e-ek-te-en* KBo 59.183 rev. 2 NS; *le-en-ik-ten* KUB 26.1 III 54 Tudh. IV, *li-in-ik<-tén>* KUB 26.1 I 3 Tudh. IV

**3pl. imp. act.** *li-in-kán-du* KUB 13.35 I 8 NH

<sup>61</sup> Note that there might be an infixed counterpart in Greek, if κυκανάω ‘to contrive, mix’ < \*κυγκανάω, cf. HED 4: 250.

<sup>62</sup> A Luwoid form according to HED 5: 85, cf. 1pl. pret. act. *le-en-ga-u-en* further in l. I 42.

**Part. n.sg. c.** *li-in-kán-za* KUB 7.41 I 15 MS?

**Part. n.-acc. sg. n.** *li-in-ga-an* KUB 14.1 obv. 79, rev. 53 MH/MS, KUB 30.51 I 18 NH; *li-in-kán* KUB 30.45+ II! 23 NH; *le-en-qa-an* Bo 299/1986 II 50, 55 Tudh. IV

**Part. acc. sg. c.** *li-in-kán-ta-an* KUB 58.85 III 4 NH

**impf. 3sg. pret. act.** *li-in-ki-iš-ke-et* KUB 14.1 rev. 51 MH/MS; *li-in-kiš-ke-et* KBo 6.34 III 14 MH/NS

**impf. 3pl. pret. act.** *li-in-ki-iš-ke-er* KUB 48.110 III 7 MH/NS

**impf. 2pl. imp. act.** *li-in-ki-iš-ke-tén* KUB 13.3 II 26 MH/NS

The verb *link-* is sometimes spelled with *-e-*, e.g., *le-en-kat-ta* KUB 21.37 obv. 25, *le-en-ga-u-en* HT 1 I 43 or *le-en-ik-ten* KUB 26.1 III 54. We find similar forms with *-e-* also in *hamank/hamink-* ‘to bind’ and *tamink-* ‘to attach’ as well as in the *nu-* verbs *linganu-* and *tamenkanu-*, while in *nin-*verbs spellings with *-e-* are rare. See further 2.1.9 and 2.4.

Since Hrozny, *link-* has been compared to Lat. *ligāre* ‘to bind’ (PIE *\*leiǵ*, LIV: 403f.). Even though this etymology is attractive both semantically and formally, it is often rejected on the grounds that in other infixed verbs made from roots of this type the infix is *-nin-* rather *-n-*, so one would expect *\*\*lini(n)k-*, cf., e.g., Kloekhorst 2008: 527 for this line of argumentation. An alternative etymology by Sturtevant, which has enjoyed more popularity, connects *link-* with Gr. ἐλέγχω ‘put to shame, prove wrong’ (PIE *\*h<sub>1</sub>leng<sup>h</sup>*, LIV: 247 ). The semantic affinity is less evident in this case, even if one brings into equation OHG *ant-lingen* ‘to answer’ with the putative original meaning ‘dagegenschwören’ (cf. HEG L-N: 61, Kloekhorst 2008: 527f., HED 5: 96).

Still, I prefer the connection to Lat. *ligāre*. The *-n-* grade of the infix is preserved in some forms of *tamink-* ‘to bind’ (see below) and *unh-* ‘to clean’, therefore generalization of *-n-* was a possibility for an infixed verb. (For the hypothesis that some of the *nin-*verbs were recent formations in Hittite see 2.4.4.)

**tamink-** ‘to attach’

**1sg. pres. act.** *ta-me-ni-ik-mi* Bo 3445 11 MS

**3sg. pres. act.** *da-mi-ni-ik-zi* KBo 17.105 IV 3 MH/MS, *ta-me-ek-zi* KUB 23.1 III 9 NH

**3pl. pres. act.** *ta-me-ni-kán-zi* KBo 20.116 rev.<sup>?</sup> 10 MH/NS with dupl. *ta-mi-[ni<sup>?</sup>]-kán-[zi]* KUB 25.48 + KUB 44.49 obv. II 28 MH/NS; *?ta-me-en-kán-z[i]*<sup>63</sup> KUB 21.34 rev. 11 NH

**3pl. pret. act.** *da-me-in-ker* VBoT 58 I 40 OH/NS

**3sg. pres. mid.** *ta-me-ek-ta-ri* KUB 7.41 I 26 MH/MS?, KUB 41.8 I 5 MH/NS; *da-me-ek-ta-ri* KBo 10.45 I 19 MH/NS; *dam-me-ek-ta-ri* KUB 21.29 IV 9 NH

**3sg. pret. mid.** *ta-me-ek-ta-at* KBo 17.105 IV 4 MH/MS; *ta-me-ek-ta-ti* KBo 42.74 7 NS

**3sg. imp. mid.** *ta-me-ek-ta-ru* KUB 9.4 II 2 MH/NS

**Part. n.sg. c.** *ta-mi-in-kán-za* KBo 15.28 obv. 12 MS; *da-me-in-kán-za* KBo 9.125 I 6' MH/NS

**Part. n.-acc.sg. n.** *ta-me-in-kán* KUB 60.67 6 NS

**Part. acc.sg. c.** *da-mi-in-kán-ta-a-an* KBo 15.34 II 30 MH/NS; *[t/da-]mi-in-kán-da-an* Bo 6575 II 6 n.a.; *ta-mi-in-kán-ta-a[n]*<sup>64</sup> KBo 15.35 I 4 MH/MS

**Part. n.pl. c.** *da-mi-en-kán-te-eš* KUB 4.1 III 19 MH/NS; *ta-me-en-kán-te-eš*<sub>17</sub> KUB 48.123 IV 8 NS

**Part. acc.pl. c.** *dam-me-en-kán-du-uš* KUB 24.7 III 70 NS

**Inf.** *[t/d]a-me-en-ku-wa-an-zi* KUB 23.94 2 NS

**Verbal noun** *dam-me-in-ku-wa-ar* KUB 24.13 II 5 MH/NS; *dam-me-en-ku-u-wa-ar* KBo 18.24 I 6 NH

**Impf. 3sg. pres. mid.** *dam-me-en-kiš-ke-et-ta* KUB 13.4 I 26 MH/NS

Similarly to *hamank/hamink-* ‘to wrap, tie’ and *link-* ‘to swear’, the *e*-vocalism or broken spellings are frequent in New Hittite texts or New Hittite copies, e.g., *da-me-in-ker* VBoT 58 I 40, *da-mi-en-kán-te-eš* KUB 4.1 III 19, *dam-me-en-kiš-ke-et-ta* KUB 13.4 I 26, *dam-me-in-ku-wa-ar* KUB 24.13 II 5, but the few relevant MS forms have

<sup>63</sup> This is the transliteration by Kloekhorst (2008: 824). Hagenbuchner 1989: 224 prints the form as *ta-me-en-kán-d[u]*. Since there almost no traces left of the last sign, both interpretations are possible.

<sup>64</sup> Thus Glocker 1997: 60. Kloekhorst 2008: 824 gives the form as *ta-mi-in-kán-ta-r[i]*, but *anda daminkantan* is used also in KBo 15.34 II 30, a copy of the same ritual, in a similar context, see Glocker 1997: 49f.



-i-: *ta-mi-in-kán-ta-a[n]* KBo 15.33 + 35 I 7' and *ta-mi-in-kán-za* KBo 15.28 obv. 12. For the -e/i- alternation see further 2.4. The middle forms, on the contrary, always have -e-, even in the MS texts, e.g., *ta-me-ek-ta-at* KBo 17.105 IV 4 MH/MS or *ta-me-ek-ta-ri* KUB 7.41 I 26 MH/MS<sup>65</sup>.

Note that active forms of *tamink-* are not numerous, and at least half of them are or can be interpreted as intransitive, which is unusual for infixes. Cf. the following examples:

VBoT 58 I 39 *ki-iš-ši-ra-<sup>r</sup>aš<sup>r</sup>-mi-iš-wa* GAL-ri-ya an-da da-me-i[n-kán-za] (40) [GÌR<sup>MEŠ</sup>]-YA da-me-in-ker “Meine Hand (ist) am Becher festgekl[e]bt, meine [Füße] haben sich festgeklebt.” (Rieken, electronic edition at the HPM website).

KUB 23.1 III 8 *nu-ut-ták-kán ma-a-an* LÚ<sup>URU</sup> *Ha-at-t[i ?]* (9) an-da ta-me-ek-zi “If [some] Hittite attaches himself to you (...and he brings up again some slander concerning My Majesty,)” (Beckman 2011: 59, similarly Kühne, Otten 1971: 12f.)<sup>65</sup>.

A less clear example is KUB 25.48 + KUB 44.49 obv. II 26 *nam-ma ŠA GAB.LÀ[(L Ì.DÜG.GA te-pu i-ya-an)]* (27) *nu-uš-ša-an ku-e-[(d)]a-ni-ya A-NA ħi-li-[(iš-tar-ni)]* (28) *te-pu ta-mi-[ni?]-kán-[(zi)]* “Ferner ist ein (Klumpen) aus Wachs (und) Feinöl gemacht; und von jenem kleben sie an (jeden einzelnen) *hilištarni*-Gegenstand ein wenig daran an” (Haas 1992: 103-104). Here, *tepu* can be an object, but it can also be an adverb; for the adverbial use of *tepu* see HEG T: 312-313.

However, there might be a transitive form as well, although it is found in a partly broken context, if -at- in l. 11 is construed as the object:

KUB 21.34 rev. 9 *nu INIM KUR<sup>TI</sup>* (rev. upper edge 1) [*I-N*]A É.GAL<sup>LIM</sup> *še-ek-kán-du* [(x)] (2) [*na-a*]t-kán ta-me-en-kán-d[u] “Let them in the palace know about the matter of the land, and let them attach? it ”<sup>66</sup>.

The etymology of *tamink-* is clear: it is related to Skt. *tañc-* ‘to pull together’, Lith. *tánkus* ‘dense’, PIE *\*temk-*<sup>67</sup> ‘to join, coagulate, solidify’ (LIV: 625f., Pronk

<sup>65</sup> The pronoun -tta- can formally be accusative as well; however, in this case one would then expect to find another noun in dative in this sentence, which would refer to an object to which this person is attached.

<sup>66</sup> Beckman (2011: 163) translates *tamink-* here as ‘to care about(?)’.

<sup>67</sup> *\*m* is reconstructed solely on the Hittite evidence: all other languages show assimilation *\*mk-* > *\*nk-*.

2013: 11ff.). Pokorny 1959: 1068-9 and EWAia I: 614-5 do not mention *tamink-* and present this root as *\*tenk-* ‘zusammenziehen, gerinnen’. The Hittite verb has an infixed counterpart in Sanskrit, *ā-tanakti* (van Brock 1962: 32, LIV: 625, Oettinger 1979: 145, Melchert 1984: 168f., contra Strunk 1973: 64<sup>16</sup>). Therefore, an infixed stem for this root can be securely reconstructed already for PIE. The details of the prehistory of *tamink-* are still unclear, however.

The verbs *tamink-* and *hamank-/hamink-* have often been considered together and viewed as morphologically similar reflexes of PIE infixed stems (e.g., Oettinger 1979: 148, cf., however, Melchert 1984: 167-8), but they are definitely to be kept apart. First of all, *hamank-/hamink-* has *-a/i-* ablaut and belongs to the *hi*-conjugation, while *tamink-* is only attested with the *-i-* in the root and clearly belongs to the *mi*-conjugation. Also important is the fact that *hamank-* often displays *-n-* before a cluster of two consonants. By contrast, *tamink-* never shows *-n-* before a consonant cluster, though the consonant is present in the derived verb *tamenganu-*.

However, it is yet to be explained how exactly a reconstructed PIE nasal present Sg. *\*tṃnékti* : Pl.: *\*tṃnkénti* (LIV: 625f.) could yield Hitt. *tamink-*. Oettinger (1979: 145) proposed the following development: Sg. *\*tṃnékti* > Proto-Hittite *\*tamnekzi*, Pl. *\*tṃnkénti* > Proto-Hittite *\*tamnkanzi*. After *\*-mn-* had been assimilated to *-mm-*, which is then simplified in the singular, the outcome is the attested form *tamekzi*; the variant *tamenikzi* is the result of an insertion of *-ne-* to *tamekzi* by analogy to *harnikzi* with an anaptyctic vowel inserted between /m/ and /n/ in order to block assimilation in the cluster /mn/. The plural stem *\*tamnenkanzi*, analogical to *\*harnenkanzi*, resulted in *tamink-*; the variant *tamenikanzi* is formed after *tamenikzi*. There are several objections to this proposal. The spellings like *da-mi-ni-ik-zi* are Middle Hittite, whereas *tamekzi* is New Hittite. The spelling *dam-me-* appears only in New Hittite texts and copies (see Otten 1973: 51ff., Kimball 1999: 97f. on this phenomenon), and the alleged development *\*mm* > *-m-* is not phonologically regular, cf., e.g., *gimm(ant)-*, s. Melchert 1994: 153; Kimball 1999: 321f.

Melchert (1984: 189) suggested a different chain of developments: Sg. *\*tṃ-né-k-ti* > *\*tamnekti* > *tammekzi*, Pl.: *\*tṃ-n-k-énti* > *\*tamnkanzi* > *\*tamankanzi* (via

anaptyxis). In the attested stem *tamink-*, the single *-m-* was generalized from the plural while the *-e-* grade was imported from the singular stem. This development is possible, but is not likely for the reasons I will give below.

Melchert's account is based on the assumption that all forms of this verb belong to the same stem. In my opinion, we are dealing with at least two different stems, since *ta-me-ek-ta-at* and *da-mi-ni-ik-zi*, attested next to each other in the lines 3 and 4 in KBo 17.105 IV, can hardly be merely different representations of a single stem */t(a)mink-/*. The middle forms that consistently show *-e-* vocalism (e.g., *ta-me-ek-ta-ri* KUB 7.41 I 26 and *ta-me-ek-ta-at* KBo 17.105 IV 4<sup>68</sup>) are likely to have never had an infix, for */e/* did not change to */i/*, and therefore they reflect a distinct stem *t(a)mek-*<sup>69</sup>. For other examples of different stems for active and middle voice cf. 1.5.

Furthermore, the spellings *ta-me-ni-ik-mi* (Bo 3445 11 MS), *da-mi-ni-ik-zi* (KBo 17.105 IV 3 MH/MS) and *ta-me-ni-kán-zi* (KBo 20.116 Rs (?) 10 MH/NS) are often considered to be graphic variants for *d/ta-mi-in-k-*; i.e., all instances of *t/da-mi-ni-ik-* would stand for */t(a)mink-/*. The spelling variants *ta-me-ni-ik-mi* (Bo 3445 11) and *ta-me-ek-zi* (KUB 23.1 III 9) would then be similar to *ḫa-ma-na-ak-ta* (KUB 14.4 II 10) and *ḫa-ma-ak-ta* (e.g., KUB 26.91 obv. 9). Such an alternation would be extremely rare; in fact, it is attested only in one other verb, *hink-* 'to grant': *ḫi-ni-ik-ta* KBo 3.7 II 23, *ḫi-ik-ta* KBo 21.13 IV 8, *ḫi-in-ik-ta* KBo 16.83 III 5 and *ḫi-in-kat-ta* KBo 3.34 II 3. However, even more important is the complete lack of spellings like *\*ta-me-in-ik-mi* or *\*da-mi-in-ik-zi* (the expected spellings for */t(a)minkC-/*). Therefore, in my opinion, there are two distinct stems, */t(a)menik-/* and */t(a)mink-/*, that go back to the singular and plural of the infixed stem, respectively, see further 2.4.4.

Therefore, I agree with Hart (1977: 139f.) who suggested that *ta-me-ni-ik-mi*, *da-mi-ni-ik-zi* and *ta-me-ni-kán-zi* belong to a distinct stem and reflect the full grade of the infix *-ni-* < PIE *\*né*<sup>70</sup>. The vocalism *-i-* in *tamenik-* may be explained as the result

<sup>68</sup> The sign IK may be read both as */iK/* and */eK/*. In fact, it denotes a front vowel followed by a velar.

<sup>69</sup> The stem *\*tmek-*, however, implies that there was a Schwebeablaut in this root, for the other IE languages continue *\*temk-* (LIV: 625), see further 2.5.5.

<sup>70</sup> The full grade of the infix is, however, not expected in the 3pl. form. Does it mean that at some point the logic behind the *-ni/n-* alteration was no longer understood and both *-ni-* and *-n-* spread to parts of the paradigm where they did not belong?

of the development *\*tamenenk-* > *\*tamenink-*<sup>71</sup>, but it can also be explained as a graphic peculiarity of replacing the sign NE with NI in non-initial syllables, see 2.5.3 and 3.2.1.3-5.

At the same time, Hart's assumption that all the other forms of *tamink-* reflect an infixless stem *\*tmek-* is probably not justified. According to Hart, /n/ before *k* is to be explained as a nasal perseveration. This is improbable, as this was not a regular process in Hittite (cf. 2.1.3), whereas in *tamink-* -n- is regular before -kV-. In my opinion, active forms with -n- like *ta-mi-in-kán-za* and *da-me-in-ker* must be weak stems with the zero grade of the infix preserved along with the strong stem *ta-me-ni-ik-mi*.

Now let us return to the issue whether *t(a)menikzi/taminkanzi* can reflect PIE *\*tm-né-k-ti/tm-n-k-énti*. The regular reflex of a syllabic nasal in Hittite is either /aN/ or /a/, see Melchert 1994: 125ff., Kimball 1999: 242ff, 252f., Kloekhorst 2008: 84. Accordingly, the weak stem *\*tm-n-k-énti* should yield /tamankanzi/ or /tmankanzi/ rather than *taminkanzi* in Hittite. However, in the case of *\*tmnk-* we have two adjacent nasals flanked by two consonants, and the fate of this sequence in Hittite is disputed. Recently, Kloekhorst (2008: 84, 2014: 69f.) has argued that an anaptyctic vowel /i/ regularly developed in a sequence *\*(C)Rnk-*, which eventually resulted in Hitt. *(C)Rink-*. Alternatively, the vocalism -i- in the weak stem *tamink-* (instead of the expected *\*tamank-*) could also be explained as the result of analogy to other *mi*-verbs with a similar auslaut, like *link-* 'to swear'. A phonetically regular source of *tamink-* would be an *e*-grade stem *\*tménk-*, but such a formation would be unparalleled for a weak stem of a *mi*-verb. Since the rule *\*(C)Rnk-* > *(C)Rink-* explains not only the weak stem *tamink-*, but also the weak stem *hamink-* (see above a detailed discussion of this verb), I prefer to take *tamink-* as a regular phonetic outcome of *\*tmnk-*.

The shape of the strong stem is more problematic. The front vowel between /m/ and /n/ in *ta-me-ni-ik-mi*, *da-mi-ni-ik-zi* is difficult to explain, since PIE strong stem *\*tm-ne-k-* should have yielded Hitt. *\*\*tamnek-*, cf. *samnanzi* 'to create' < *\*smn-énti*

<sup>71</sup> This -i- is usually explained as a result of raising before nasal + stop (Melchert 1994: 101, 139, Kimball 1999: 157f.). However, one must take into account the a fairly common view that /e/ and /i/ merged in Middle Hittite (see, e.g., Kimball 1999: 69ff.). Cf. also 2.4.

(Oettinger 1979: 104) or < \**sm-no-ye/o-* (Kloekhorst 2008: 718). This unetymological *-e-/i-* is perhaps also to be explained as anaptyctic /i/ that appeared in the strong stem by analogy to the weak stem.

Summing up, this verb is likely to have employed several stems: *t(a)menik-*, *tame/ink-* and *t(a)mek-*. Moreover, *t(a)menik-* seems to reflect a strong stem with the infix in the form *-ni-*, whereas *tame/ink-* reflects the weak stem with the infix in the form *-n-*. If so, the PIE ablaut \**-ne-/n-* of the infix is preserved in this verb.

## 2.4 The *-e-/i-* variation in Middle and New Hittite.

Some of the verbs discussed in this chapter show an alternation between *-e-* and *-i-* before *-n-*. In the case of *hamank/hamink-* and *tamink-*, it is difficult to determine a diachronic distribution between the two variants. We can only say that *-e-* starts to occur in NH texts and copies. The verb *link-* is often attested in instructions, historical texts and treaties which are easier to date. The spelling with *-e-* is consistent in the Bronze Tablet (Bo 299/1986; *le-en-ku-un* II 4; *le-en-kat-ta* II 38; *le-en-qa-an* II 50, 55) and in KUB 26.1 *le-en-ga-nu-nu-un* III 47, *le-en-ga-nu-ut* III 17 *le-en-ik-ten* III 54 with the sole exception *li-in-ik<-tén>* I 3 (CTH 255, instructions of Tudhaliya IV for princes), both composed in the time of Tudhaliya IV. In contrast, it is virtually absent in earlier texts, with the exception of *le-en-kat-ta* KUB 21.37 obv. 25 (NS, CTH 85, Conflict between Urhi-Tešub and Hattusili III). In *lingai-* ‘oath’, spellings with *-e-* (*le-en-ki-(ya-)aš*) occur in KBo 10.12 II 33, III 24 (CTH 49.II, Treaty with Aziru of Amurru), a document from Suppiluliuma I’s reign, and in the Tawagalawa letter (*le-en-ga-uš* KUB 14.3 II 52), as well as in rituals and instructions from the time of Suppiluliuma II. Since spellings with *-e-* are absent in the texts of Mursili II and Muwatalli, I believe that the spelling *le-en-kV-* became preferred sometime near the end of Hattusili III’s reign. Nevertheless, the continued spelling of these words with *-i-* may be explained as habit of a certain scribe or scribes, as some documents of Tudhaliya IV and Suppiluliuma II still have *link-* and *lingai-*.

In other verbs, *-e-*, instead of the expected *-i-*, appears earlier, sometimes attested already in MS texts, cf. *ḫa-me-en-ku-wa-aš* KUB 30.48 14 OH/MS, cf. also the form *pít-te-nu-ut* KBo 32.14 III 9 MH/MS (cf. the entry for this verb in 4.1).

Given that spellings with *-e-* instead of *-i-* become frequent in *link-*, *tamink-* and *hamink-*, but are relatively rare<sup>72</sup> in *nin-*verbs or *nink-* ‘to get drunk’, I believe that these new spellings are based on some real phonetic changes which were blocked by a preceding /n/<sup>73</sup>.

## Conclusions

**2.5.1** Most verbs discussed in this chapter have good root etymologies, and in several cases (*ninink-*, *tamink-* and perhaps also *istarnink-* and *kunk-*), there are corresponding infixed formations in other Indo-European languages as well<sup>74</sup>.

None of these verbs, however, displays an alternation between *\*-ne-* in the strong stem and *\*-n-* in the weak stem which would have been a faithful reflection of the reconstructed PIE alternation *\*CR-né-C-/CR-n-C-*<sup>75</sup>. Certain forms of the verbs *tamink-* and *hink-* are likely to preserve this pattern (see the respective entries in 2.3 and 2.5.3 below), but both verbs seem to have eventually generalized the weak stem. The verbs *link-* and *kunk-*, if they indeed are infixed verbs, generalized the weak stem already in the prehistory of Hittite. The infix *-nin-* is a Hittite innovation, which is probably based on the full grade *\*-ne-* of the infix. The origin of the second *-n-* is not clear, however.

The verbs *hamink-* and *galank-* have good root etymologies, but have no infixed counterparts in other languages. Since a derivation of *hamink-* from the reconstructed PIE nasal infix stem requires too many analogical changes, it is tempting to explain it

<sup>72</sup> I know of the following examples: *ḫar-ni-en-ku-un* KBo 14.19 II 28, III 28 (CTH 61, Annals of Mursili II); *ḫar-ni-en-kán-du* KUB 26.25 11 NH (CTH 122, Treaty of Suppiluliuma II with Talmi-Tešub); *šar-ni-en-ki-iš-ke-mi* KUB 14.14 rev. 14 NH (CTH 378, Plague Prayers of Mursili II); *šar-ni-en-kán-zi* KBo 6.5 II 13 OH/NS (CTH 291, Laws).

<sup>73</sup> Oettinger 1979: 135<sup>3</sup> suggested that the sign NI was regularly used instead of NE outside the root syllable, cf. further 3.2.1.3.

<sup>74</sup> Eichner (1982: 18f.) listed 5 cognate infixed formations in other IE languages for the Hittite verbs of the type *harnink-*, but some etymologies are untenable (Lat. *vinco* and Skt. *vinak-* are not related to Hitt. *huek-*), and the verbal stem *hinik-* is in fact a variant of *hink-* ‘to give, grant’, see the respective entry).

<sup>75</sup> On the infixed stems in PIE see LIV: 17 and cf. 1.8 above.

as an Anatolian (or Hittite) innovation, cf. the respective entry and 6.3.5. In my opinion, the single case of *hamank/hamink-* is not enough to assume an infixed *hi*-conjugation verbal type with *ó/é* ablaut for PIE<sup>76</sup>.

**2.5.2** Kloekhorst (2008: 152) argues that the development of the infix in *tamink-* was conditioned by the quality of the preceding resonant. If the resonant was /m/, then the infix was reflected as *-Vn-*, otherwise it developed into *-nin-*. But Kloekhorst's approach fails to account for the case of *galank-* which he considers to contain a PIE infix as well (Kloekhorst 2008: 428f.).

He argues that, originally, the infix was a suffix and the would-be infixed stems began as *\*CrC-én-ti/\*CrC-n-énti*. After subsequent metathesis and prenasalisation, the stem *\*CR-né-<sup>n</sup>C-ti/\*CR-n-C-énti* was the last formation common to Anatolian and the other IE languages. In Anatolian, the nasalization of the velar (but not laryngeals) developed into a full nasal consonant, and *\*tmné<sup>n</sup>k-ti* was simplified into *tménk-ti*. The weak stem *\*CR-n-C-énti* changed to *\*CRnnC-énti* after the full grade *\*CRnenC-ti*, and an anaptyctic vowel /i/ developed in the sequence *\*C(R)nnC-*. The final developments were the change of /e/<sup>77</sup> to /i/ before /nk/ and the loss of /n/ before consonant clusters.

Some aspects of the suggested history of infixed verbs in Hittite (Kloekhorst 2008: 153ff.) are ad hoc and not convincing (e.g., the generalization of a prenasalisation, for which there are no other examples, or the assumed change *\*Cmne- > \*Cme-* in order to explain *\*tmékti < \*tmnékti* (ibid. 154), which did not take place in *samnanzi* 'to create' < *\*sm-no-ye/o-* (cf. ibid. 718)). Besides, *hink-*, *kunk-* and *link-* do not fit this scenario either.

**2.5.3** Certain forms of the verbs *tamink-* and *hink-* are best explained as having the infix *-ni-*. The sign NI in *hi-ni-ik-ta* KUB 34.16 III 4 (OH/NS) and KBo 3.7 II 23

<sup>76</sup> The shift of other Hittite infixed verbs, namely *tarna-* 'to let go' and *sunna-* 'to fill', to the *hi*-conjugation is best explained as conditioned by the vocalism *\*-o-* of the stem, which was due to the root-final *\*h<sub>3</sub>*, that is *\*sunoh<sub>3</sub>-ei < \*sunóh<sub>3</sub>-ti < \*sunéh<sub>3</sub>-ti*, see further 3.2.2.

<sup>77</sup> In Kloekhorst 2014: 69f., he argues that /i/ changes to /i/ in this environment as well.

(OH/NS), *hi-ni-ik[-* in KUB 57.91 rev. IV 5 (NS) as well as *ta-me-ni-ik-mi* Bo 3445 11 (MS), *da-mi-ni-ik-zi* KBo 17.105 IV 3 (MH/MS) and *ta-me-ni-kán-zi* KBo 20.116 Rs (?) 10 (MH/NS) is hardly just a graphic variant for IN here, see the respective entries. That is, *hi-ni-ik-ta* stands for /hinik-ta/ rather than for /hink-ta/. Above it is argued that the variant *-ni-* in the stems *hinik-* and *tamenik-* reflects the full grade of the PIE infix *\*-né-*. These forms are archaic, and eventually both verbs generalized the weak stem with the zero grade of the infix.

The *-i-* of the full grade *-ni-* is difficult to explain. Theoretically, it could indicate that *-ni-* goes back to *-nin-* with a regular loss of *n* before a consonant cluster. However, as we will see later on, it is better explained as a result of either graphic habit or a retraction of the accent to the root, see details in 3.2.1.3-5.

**2.5.4** In my view, some of the *-nin-* verbs were formed relatively late in the prehistory of Hittite. There are several arguments in favor of this suggestion. First, there are no infixed verbs to the roots with a final stop in other Anatolian languages. Among the *-nin-* verbs, only *ninink-* and *sarnink-* have reliable infixed counterparts in the other IE languages. Second, in Hittite, *-nin-* occurs only in verbs with a velar consonant in the auslaut of the root: there are no infixed formations to roots ending in a dental or a labial stop, though they seem to have been quite numerous in PIE (e.g., Skt. *limpáti* ‘to smear, anoint with’, Lith. *limpù* ‘to stick to’, PIE *\*leip-* ‘to adhere, stick to’; Skt. *bhinátti*, Lat. *findō*, PIE *\*b<sup>h</sup>eid-* ‘to split’). Third, the infix in *tamink-*, *hink-*, *link-* and possibly *kunk-* is *-ni-* or *-n-* and not *-nin-*. At a certain moment in the prehistory of Hittite, the infix in *tamink-*, *hink-* and *link-* was reanalyzed as a part of the root. This theory is supported by the fact that the nasal is also preserved in the derived *nu-*verbs (e.g., *damenganu-*), while in case of *nin-*verbs, *harganu-* has replaced *harnink-*. The infix *-nin-* continued to enjoy limited productivity, and the *nin-*verbs that do not have infixed counterparts in the other IE languages (*harnink-*, *hunink-* and perhaps *istarnink-*) may be relatively recent formations.

It is not entirely clear why *tamenik/tamink-*, *hinik-/hink-* and *link-* did not align themselves to the *nin-* type. I assume that in the case of *hink-* and *link-*, originally there



were cognate verbs *\*hik-* and *\*lik-*, reflecting infixless stems of the same roots<sup>78</sup>, which were lost at a relatively early stage in the prehistory of Hittite; afterwards, the infix in *hink-* and *link-* was reanalyzed as a part of the root. Another assumption that would need to be made is that the infixless counterpart of *ninink-* was lost later than those for *hink-* and *link-*, after the infix had developed into *-nin-*. This of course is impossible to prove, but I do not think that such a scenario is inconceivable.

**2.5.5** The verb *hamank-/hamink-* ‘to wrap, tie’ must be a post-PIE formation. It seems to have been derived from *\*h<sub>2</sub>móǵ<sup>h</sup>-*/*\*h<sub>2</sub>még<sup>h</sup>-* or *\*h<sub>2</sub>móǵ<sup>h</sup>-*/*\*h<sub>2</sub>mǵ<sup>h</sup>-* by adding an *-n-*, the origin of which is not entirely clear (see the respective entry in 2.3). The data of other Indo-European languages rather point to a different position of the vowel in the root, *\*h<sub>2</sub>emǵ<sup>h</sup>-*, see LIV: 264f. Such alternation of the position of the vowel within the root is called Schwebeablaut. This phenomenon has been recently studied by Ozoliņš (2015), who states (op. cit. 147) that the so-called State II (*\*h<sub>2</sub>móǵ<sup>h</sup>-* or *\*h<sub>2</sub>még<sup>h</sup>-* in case of the root *\*h<sub>2</sub>emǵ<sup>h</sup>-*) is the product of various secondary developments, and is often conditioned by derivational or phonological processes. This provides further support for a secondary origin of *hamank-/hamink-*. If one distinguishes a distinct middle stem *t(a)mek-* for *tamink-* ‘to attach’, this stem must also be of secondary origin, since the cognates of the root in other Indo-European languages point to *\*temk-* (LIV: 625f.).

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<sup>78</sup> Similarly to *sark-* ‘to be good’ : *sarnink-* ‘to compensate’, *istark-* ‘to get ill’ : *istarnink-* ‘to make ill’.

## Infixes to roots ending in laryngeal

**3.1** In this chapter I discuss Hittite verbs made from IE roots in final laryngeal that have been claimed to contain a nasal infix. The PIE reconstruction for this type, based on Indo-Iranian and Greek data, is as follows: *C(R)néH-* in the singular and *C(R)nH-Ṽ* in the plural, cf. LIV: 17.

Anatolian, including Hittite, is the only group of IE languages in which laryngeals have been preserved as consonants, although only in certain positions; in other environments, laryngeals were lost or assimilated. Thus, for instance, all three laryngeals were lost between a vowel and a stop with compensatory lengthening (e.g., Melchert 1994: 67, 69, 73, Kloekhorst 2008: 77) and after a resonant before a vowel (Kloekhorst 2008: 80); in the sequence *-VnHV-*, laryngeals were assimilated to /n/, yielding *-VnnV-*, see, e.g., Kimball 1999: 334.

The expected reflexes of PIE infixes in Hittite would have been as follows:

*\*CaRnē-/CaRn- < \*CRnē-/CRnh<sub>1</sub>- < PIE \*CR-né-h<sub>1</sub>-/CR-n-h<sub>1</sub>-*

or *\*CaRnā-/CaRn- < \*CRnā-/CRnh<sub>2/3</sub>- < PIE \*CR-né-h<sub>2/3</sub>-/CR-n-h<sub>2/3</sub>-*

If the penultimate consonant in the root was /l/, the nasal of the infix would have changed into /l/ by assimilation:

*\*Callē-/Call(V)- < \*Cl̥nē-/Cl̥nh<sub>1</sub>-(V) < PIE \*Cl-né-h<sub>1</sub>-/Cl-n-h<sub>1</sub>-*

or *\*Callā-/Call(V)- < \*Cl̥nā-/Cl̥nh<sub>2/3</sub>-(V) < PIE \*Cl-né-h<sub>2/3</sub>-/Cl-n-h<sub>2/3</sub>-*

Finally, in the roots of the type *\*CeīH-* or *\*CeuH-* the laryngeal would have been assimilated to the nasal rather than lost:

*\*Ci/unē-/Ci/unn(V)- < \*Ci/unē-/Ci/unh<sub>1</sub>(V)- < PIE \*Ci/u-né-h<sub>1</sub>-/Ci/u-n-h<sub>1</sub>(V)-*

*\*Ci/unā-/Ci/unn(V)- < \*Ci/unā-/Ci/unh<sub>2/3</sub>(V)- < PIE \*Ci/u-né-h<sub>2/3</sub>-/Ci/u-n-h<sub>2/3</sub>(V)-*

I do not know of any Hittite verb that would follow any of these patterns. Nevertheless, the reconstruction of an infix stem for some of the verbs discussed in this chapter is strongly suggested by their etymology and/or inability to otherwise explain the peculiarities of their stem formation. Some other verbs included in this section are in my opinion not infixes. The reason they are treated here is that

etymologies according to which these verbs contain an infix have enjoyed considerable popularity.

As is illustrated by the “reconstruction forward” above, the root-final laryngeals were lost or assimilated in most of the relevant positions (*unh-* ‘to empty’ is an exception). Therefore, in contrast to *nin*-verbs, it is usually impossible to show, based on Hittite data only, that a given verb contains an infix rather than a suffix, and morphological analysis often depends on comparative evidence.

**arsanē-** ‘to be angry, envy’

**2sg.pres.act.** *ar-ša-ne-e-ši* KBo 25.122 III 2, 4, 6, 8, 10, 12, 14 OS; *ar-ša-ni-e-še* ABoT 65 rev. 6<sup>79</sup> MH/MS

**3sg. pres. act.** *ar-ša-ni-e[-eš?]* ABoT 65 rev. 4 MH/MS

**3sg. pret.act.** *ar-ša-ni-ya-at* KUB 19.65 14 NH

**3pl. pret.act.** *ar-ša-ni-i-e-er* KBo 3.6 I 28 NH, KUB 1.1 I 32 (with a gloss sign)<sup>80</sup> NH, KUB 1.5+ I 9 NH

**part. acc. sg. c.** *ar-ša-na-an-da-an* KBo 34.26+ KBo 34.28 III 5` OH/MS with dupl. *ar-ša-na-an-d[a]* KUB 33.9 III 7 OH/NS

**nom.-acc. pl. neut.** *ar-ša-na-an-ta* HKM 116 32 NS

On the basis of Old Hittite *ar-ša-ne-e-ši*, Watkins (1985: 245), followed by Oettinger (1992: 225) assumes a PIE stative suffix *\*-eh<sub>1</sub>-* in this verb. This means that the original stem must have been *arsanē-*, while *arsaniya/e-* is secondary. As per Watkins, *arsanē-* goes back to *\*ṛh<sub>1/3</sub>sneh<sub>1</sub>-*, which was derived from a noun *\*ṛh<sub>1/3</sub>s-no-*. The same root is attested in Av. *ərəši-* ‘envy’ and *arəšyant-* ‘envious’, Skt. *īrṣyā-* ‘envy’, *irasyāti* ‘be angry’ and OE *eorsian* ‘to wish ill’, all derived from PIE root *\*HerHs-* (cf. HED 1/2: 172-173).

<sup>79</sup> Unless it is an erroneous spelling for 2sg. pret. *\*ar-ša-ni-e-eš*

<sup>80</sup> The gloss sign is missing in the duplicates KBo 3.6 and KUB 1.5. Remarkably, there are quite a few words that are marked with the gloss sign in KBo 1.1 but not in KBo 3.6 and KUB 1.5 – *zi-la-du-wa* (I 6), *ir-ma-la-aš(-pat)* (I 44), *pa-la-aḫ-ša-an* (I 57), *dan-na-at-ta* (II 63), *dan-na-at-ta* (II 66), *ku-pi-ya-ti-in* (IV 34). For the functions of the gloss sign see Yakubovich 2009: 466f.

Kloekhorst (2008: 211) does not accept this etymology, because in his phonology there must have been an anaptyctic vowel inserted to the sequence *\*HrHs-no-*<sup>81</sup>, which would have yielded *\*\*are/isna-*. In his view, *arsanē-* goes back to *\*Hrs-ne-h<sub>1</sub>-/\*Hrs-n-h<sub>1</sub>-*, with which he compares *zinni-/zinn-* and *hulle-/hull-*.

I believe, however, that the etymological connection to Av. *arāši-* ‘envy’ is viable. First of all, there is no need to reconstruct a noun *\*(H)rh<sub>1/3</sub>s-no-*, since there are no parallel formations with *\*-no-* made from this root in the other IE languages. A better solution would be a noun with the suffix *-an-*, *\*arsan-*<sup>82</sup>, cf. *nahhan-* ‘fear’ from *nahh-* ‘to fear’, *mudan-* ‘garbage’ from *mudāi-* ‘to remove’<sup>83</sup>. *Arsanē-* would then have been built straight to the noun (for denominal derivation of verbs in *-ē-*, see Hoffner, Melchert 2008: 177). Alternatively, it may have been derived from a denominative adjective *\*arsanant-*. If so, the participial forms of *arsanē-* might in fact belong to this adjective<sup>84</sup>.

The intransitive verb *arsanē-* is semantically clearly a stative rather than an infixed verb, which is supposed to be a causative (but cf. 7.2.3). Cf., e.g., the treatment of ABoT 1.65 rev. 4-6 by Hoffner (2009: 244): *nu apēdani uddanī ar-ša-ni-e[-eš?]* (rev. 5') *mam=man=za=kan kuiski É-er tamais arnut* (rev. 6') *man zik ŪL ar-ša-ni-e-še* “And he became upset about that matter. If someone else had relocated (your) household/family, would you not become upset?” Cf. also a passage from the Apology of Hattusili III (CTH 81). KUB 1.1 I 30 GIM-*an* UKÜ<sup>MEŠ</sup>-*annaza* (31) ŠA IŠTAR GAŠAN-YA *kanissuwar* ŠA ŠEŠ-YA-ya (32) [*as*]sulan *austa nu=mu :ar-ša-ni-i-e-er* “(Als da die Leute die Gewogenheit der Ištar, meiner Herrin, mir gegenüber und meines Bruders Gunst sahen, da beneideten sie mich” (Otten 1981: 6f.).

<sup>81</sup> See Kloekhorst 2008: 73.

<sup>82</sup> *Arsanē-* and its derivatives are consistently spelled with *ar-ša-nV-*, which to my mind points to a real vowel between /s/ and /n/.

<sup>83</sup> For this suffix see Hoffner-Melchert 2008: 55.

<sup>84</sup> A participle of a stative verb is indistinguishable from an *ant*-adjective. For example, *sullē-* ‘to be arrogant’ has a participle *sullant-* (so Melchert 2005: 96, but cf. Kloekhorst 2008: 779), which looks exactly like adjectives *paprant-* ‘impure, unclean’ and *marsant-* ‘deceitful’, which usually are not considered to be participles of *paprē-* ‘to be proven guilty by ordeal, do smth. impure’ and *marsē-* ‘to be corrupt’, respectively. I see no reason not to believe that the relevant *ant*-adjectives are originally participles of stative verbs, which became independent after statives/inchoatives in *-ē-* were gradually replaced with *ess*-forms. See more on Caland system in Hittite in 4.19 and 4.13.

Therefore, in my opinion, *arsanē-* is a denominative stative verb rather than a nasal infix verb.

**hallanna/i-** ‘to trample down’

**3pl. pres. act.** *ḫal-la-an-ni-an-zi* Bo 3276 obv. 6 MS

**3sg. pres. med.** *ḫal-la-an-ni-ya-at-ta-ri* KUB 4.3 obv. 9 NH

**impf. 3sg. pres.act.** *ḫal-la-an-ni-eš-k[e-ez-zi]* KBo 19.112 17 MH/NS

Oettinger (1992b: 153f.) and Kloekhorst (2008: 271f.) argued for a translation ‘to trample’ against Puhvel’s translation ‘to lay waste, ruin’ (HED 3: 13), since the object of this verb in the two well preserved contexts is grass and a field.

*Hallanna/i-* is only attested with the imperfective suffix *-anna/i-*, so we do not know the conjugation type of the base verb. The form *hallanniyattari* in KUB 4.3 obv. 9 (NH) shows a *ye/a-* stem, which is also attested for some other verbs in *-anna/i-*, see 5.6.

Puhvel (HED 3: 14) traces the stem *\*halla-* back to PIE *\*A<sub>2</sub><sup>w</sup>l-n-éA<sub>1</sub><sup>w</sup>-* and adduces a Greek cognate ὄλλυμι ‘to destroy’. There is perhaps a cognate Hittite noun *halluwai-* ‘violence, brawl’ from an *-u-* stem *\*hallu-* (HED 3: 51, cf. also Kimball 1999: 349)<sup>85</sup>. In the standard notation, the root is *\*h<sub>3</sub>elh<sub>1</sub>-* (Gr. aor. ὄλεσσα, see LIV: 298, Harðarson 1993: 222f) or *\*h<sub>3</sub>elh<sub>3</sub>-* (thus Puhvel 1995: 178 due to Gr. οὐλόμενος). LIV: 298<sup>4</sup> also considers *hallanna/i-* to be an *-anna/i-* imperfective from the infixed stem *\*halla- < \*h<sub>3</sub>l<sup>h</sup>nh<sub>1</sub>énti*.

The meaning ‘to trample’ makes the comparison of *hallanniye/a-* to Hitt. *halluwai-* ‘brawl’ or to Gr. ὄλλυμι, Lat. *deleō* less obvious, though still possible. Within Hittite, *hallanna/i-* may be related to *haliye/a-*, if the latter means ‘to fall down, throw oneself to the ground’ rather than ‘to kneel’<sup>86</sup>; cf. the entry for *haliyanu-* in 4.1.

*Haliya-* and *hallanna/i-* seem to be parallel to *ša-li-i-an-zi* (KUB 58.14 rev. 1. col. 24) and *sallanna/i-* ‘to pull, drag’, cf. CHD Š: 85, Kloekhorst 2008: 707f., 709; if so,

<sup>85</sup> Melchert (1994: 82) suggested that both *halluwai-* and *hallanniye/a-* are denominal formations from *\*hel-nu-* and *\*halnatar < \*he/ol-na-* respectively.

<sup>86</sup> Beal (1998: 85) observes that the Akkadogram for *haliya-* is *IMQUT*, and Akk. *maqātu* means ‘to fall down, collapse’.

*haliye/a-* goes back to *\*h<sub>3</sub>lh<sub>1</sub>-ye/o-* and *hallanna/i-* is an imperfective stem to *\*halla-* < *\*h<sub>3</sub>lnh<sub>1</sub>-V-*. The infix is assumed merely in order to explain the transitivity of the stem *\*halla-*; otherwise there is no evidence that *\*halla-* in *hallanniye/a-* is an infixed stem, as it can reflect *\*h<sub>3</sub>elh<sub>1</sub>-V-* as well.

**harni-** ‘to stir, agitate’

**1sg. pres. act.** *har-na-mi* KBo 40.272 6 MS

**3sg. pret act.** *har-ni-it* KBo 40.272 9 MS

**part. gen. sg. c.** *har-na-an-ta-aš* KBo 23.68 rev. 1 MS

**part. acc. sg. c.** *har-na-an-ta-an* KUB 39.9 obv. 9 preNH/NS; *ha[r]-na-an-da-an* KBo 44.167 9 MS

**part. n.-acc. sg. n.** *ha-ar-na-a-an* KUB 7.1 I 27 MH/NS

**verbal noun** *ha-ar-na-am-ma* KUB 7.1 I 26 MH/NS, Bo 5872 I 9 MS; *ha-ar-na-am-mar* KUB 7.1 I 25 MH/NS; *har-nam-mar* KBo 6.34 I 35 MH/NS

Puhvel (HED 3: 402f.) incorrectly attributes *har-na-mi* KBo 40.272 6 and *har-ni-it* KBo 40.272 9 to *harna-* ‘to sprinkle’. The object in both cases is *arunan* ‘sea’ (unfortunately, both contexts are severely damaged), and we find the verb *harnamniya-*, derived from *harnammar* ‘ferment, yeast’, used with this noun in KUB 36.41 I 13-4: *nu=wa arunan [...] [and]an harnamnit* ‘he churned the sea’, cf. HED 3: 172. The stem final *-a-* in 1sg. pres. *harnami* and *-i-* in 3sg. pret. *harnit* do not correspond to each other, since a Hittite reflex of an infixed verb is supposed to have either a consistent *-a-* < PIE *\*-néh<sub>2</sub>-* / *\*-néh<sub>3</sub>-* or a consistent *-e-* < PIE *\*-néh<sub>1</sub>-* in the singular. For similar examples of the alternation *-a-* and *-e-/i-* in other infixed verbs, see *hulle-* and 3.2.1.1-5.

Puhvel (HED 3: 171ff.) argues that *harni-* continues an infixed stem *\*E<sub>2</sub>ʔnE<sub>1</sub>-*, which is related to Gr. ἐρωή ‘stir, rush’ and OE *ræs* ‘movement, rush’. Since the initial *ε-* in Greek does not correspond to initial *h-* in Hittite, this etymology is untenable. Rikov (1997: 219ff.) compares *harna(nt)-* with PIE *\*h<sub>3</sub>er-* (cf. LIV: 300<sup>1</sup>). In this case, Gr. ὀρνυμι ‘to call forth, incite’ could be viewed as a parallel nasal formation for

*harna-*. However, the universally recognized reflexes of this root in Hittite are *ar*-<sup>tta</sup> ‘to stand’, *arai*-<sup>i</sup> ‘to rise, raise’ and *arnu-* ‘to make go, stir, deliver’ (see the entry for *arnu-* in 4.1); this root connection is preferable.

While the contexts for *harni-* are limited and often damaged, its derivative, *harnamniya-* based on the verbal noun *harnamma(r)* ‘ferment, yeast’, has also meanings like ‘to stir together’, ‘to knead’, often with preverbs *anda* and *katta*, see HW<sup>2</sup> III: 318. If *harni-* also means ‘to mix (in)’ besides ‘to stir, churn’, it could perhaps be compared to PIE *\*h<sub>2</sub>er-* ‘sich (zusammen)fügen’, Gr. ἀράρισκω ‘to fit together’, Arm. pres. *aṛnem*, LIV: 269f. Note that Hitt. *āra* ‘right, properly’ is also traditionally connected with this root, though one has to assume loss of *\*h<sub>2</sub>* before *\*o* in *\*h<sub>2</sub>or-* (see Kloekhorst 2008: 199).

***harna-, harniye/a-*** ‘to sprinkle’

**3sg. pres. act.** *ḫar-ni-e-ez-zi* VBoT 58 IV 24 OH/NS; *ḫar-ni-ya-zi* KBo 10.45 II 15 MH/NS; *ḫar-ni-ya-iz-[zi]* KBo 22.125 II 4 NS

**1pl. pres. act.** *ḫar-na-u-e-ni* KUB 19.156 obv. 17 OS

**3pl. pres. act.** *ḫar-na-an-zi* KBo 24.46 I 6 NS, KUB 38.32 obv. 10 NH; *ḫar-ni-ya-an-zi* KBo 31.121 obv. 2 NS, KUB 9.15 III 7, 15 NH, KUB 15.12 IV 4 NS, KUB 25.24 II 8 NS, KUB 41.30 III 9 NS

**3sg. imp. act.** *ḫa-ar-ni-ya-ad-du* KUB 56.48 I 18 NS

**verbal noun n.sg.** *ḫar-ni-e-eš-šar* IBoT 3.1 29 OH/NS; *ḫar-ni-eš-šar* IBoT 3.1 31, 39 OH/NS; *ḫar-na-i-šar* KUB 58.50 III 8, 14 OH/NS; *ḫar-na-a-i-šar* KUB 58.50 III 11 OH/NS

***harnu(e)-*** ‘to sprinkle’

**3sg. pres. act.** *ḫar-nu-zi* KUB 47.39 obv. 12 NS; *ḫar-nu-ú-i-iz-zi* KUB 17.24 II 4 NS

**3pl. pres. act.** *ḫar-nu-an-zi* KUB 29.7 I 36, 46, 56 MH/MS; *ḫar-nu-wa-an-zi* KBo 13.179 II 10 NS, KBo 24.45 obv. 22 MS?

**part. n. sg. c.** *ḥar-nu-u-wa-an-za* KUB 30.19 + KUB 39.7 I 16 pre-NH/NS

**part. n.-acc. sg. n.** *ḥar-nu-wa-an* KUB 13.4 I 19, 60 MH/NS

**part. n.-acc. pl. n.** *ḥar-nu-an-ta* KBo 17.65 rev. 10 MH/MS

This verb is almost exclusively spelled with the sign HUR, which can also be read as HAR. The traditional reading /hur/ is based on the idea that it is related to *ḥu-u-ur-nu-u-wa-as* in KUB 39.6 II 14 and Pal. *ḥu-wa-ar-ni-na-i* KUB 35.165 obv. 10. The reading /har/ is, however, suggested by *ḥa-ar-ni-ya-ad-du* KUB 56.48 I 18, in a very clear context: É<sup>MEŠ</sup> DINGIR<sup>MEŠ</sup> -*ya-kán pa-ra-a ša-an-aḥ-du ḥa-ar-ni-ya-ad-du* “(he) shall clean and sprinkle the temples”. In fact, the words above with the spelling *ḥu-(u-)ur-* are likely not to be related. In KUB 39.6 obv. 14: [*I-NA UD.1*]1.KAM *ḥu-u-ur-nu-u-wa-aš* “on eleventh day of *hūrnuwaš*”, there is nothing to specifically confirm any kind of sprinkling, cf. especially Kassian, Korolev, Sidel’tsev 2002: 619f. Besides, *hūrnuwas* is an unlikely verbal noun to be made from *harna-* or *harnu-* as we would expect the suffix *-mar* instead, e.g., *arnumaš* from *arnu-* or *tarnumar* from *tarna-*.<sup>87</sup> The interpretation of Pal. *huwarninai* is also disputed<sup>88</sup>.

According to HED 3: 397f., this verb may have a parallel infixless formation *hūrai-* which is once used next to *sanh-* ‘to wash’ in KUB 39.1 III 39-40 in a context, similar to those in which *harna-* is used<sup>89</sup>. These verbs, however, take different objects: instead of water or other liquids, *hūrai-* is used with bluecopper (KUB 6.24 obv. 6) or copper (KUB 39.1 III 39-40). A Luwoid participle *ḥu-ra-am-ma-ti* in KUB 26.43 obv. 12 is an attribute of *gimra-* ‘field’, which is indeed something that may be sprinkled. According to Melchert (1993: 75), *hūrai-* is rather related to CLuw. *hur-* ‘to give water’; he assumes that the Luwian verb could be the source for *hūrai-*, although he admits that the meaning of *hur-* is ‘quite uncertain’.

<sup>87</sup> There is a handful of exceptions, e.g., *wa-ar-nu-wa-aš* KUB 12.22 16 from *warnu-*.

<sup>88</sup> The Palaic form was analyzed by Kammenhuber (1959: 21) as a nominal form in dative/locative, while Carruba considered *ḥu-wa-ar-ni-na-i ša-pa-u-i-na-i* to be verbs with a 3sg. ending *-i* (Carruba 1970: 56, 69, see also Eichner 2010: 44 note c). Carruba’s analysis can be supported by the fact that after these words there is an erased sign TA or ŠA, either of which can indicate the 3sg. act. endings of *mi-* and *hi-* conjugations respectively. The function of the Palaic suffix<sup>2</sup> *-(i)na-* is likely to be a denominative, see Melchert 1984b: 37-38. As a denominative, *huwarninai* cannot be directly compared to *ha/urna-*.

<sup>89</sup> *nu-wa-ra-an* [<sup>NA4</sup>*ku-u*]n-na-ni-it (40) *ḥu-u-ra-i-ir na-an AN.BAR-it ša-an-[ḥe]-er* “they have “sprayed” it with copper, they have “flushed” it with iron” (HED 3: 397).



If one still wants to stick to the reading *hurna-*, one has to explain the spelling *ḫa-ar-ni-ya-ad-du* as an incorrect ‘explication’ of the sign HAR (thus HED 3: 403, cf. Kimball 1999: 248), which would imply that this word was not very well known to the scribe. Another possibility is to separate *harnai-* from *hurnu(wai)-* (thus Neu 1983: 55<sup>261</sup>). Still, the best solution is to separate the obscure forms *ḫu-u-ur-nu-u-wa-aš* KUB 39.6 obv. 14 and Pal. *ḫu-wa-ar-ni-na-i* from other attestations of *harnu(wai)-* (thus Kloekhorst 2008: 309).

Melchert (1994: 129) argues that *harnai-* is a variant of *harnuwai-*<sup>90</sup> in which /w/ was dropped in the position between /n/ and vowel. This is not likely, however, as almost all forms of the latter verb rather point to a *nu*-stem (thus already Kronasser 1966: 457, 562), with the stem *harnuwai-* being a late development. This is one of the few cases for which there are parallel formations in *-na-* and *-nu-* from the same root, see *walla/walluske/a-* with note 110.

Since the actual stem is *harna-*, etymologies suggested for *hurna-* are to be discarded<sup>91</sup>; there is no compelling etymology for *harna-* yet.

**hulle-** ‘to smash’

**2sg. pres. act.** *ḫu-ul-la-ši* KUB 37.223c 7 OS or MS

**3sg. pres. act.** *ḫu-ul-la-az-zi* KUB 37.223a 4 OS or MS; *ḫu-u-ul-la-az-zi* KBo 6.26 II 11 OH/NS (dupl. to KUB 29.32 4); *ḫu-ul-li-iz-zi* KBo 3.22 obv. 25 OS ( *ḫu-ul-li[-iz-zi]*), KUB 29.32 4, 5 OS, KUB 34.53 rev. 9 MS, KUB 40.54 rev. 2 NS, IBoT 3.131 5 NS, Bo 4293 6 n.a.; *ḫu-ul-li-zi* KBo 20.82 II 27 OH/NS; *ḫu-u-ul-li-ya-az-zi* KBo 6.26 II 13 OH/NS (dupl. to KUB 29.32 5); *ḫu-ul-li-ya-az-zi* KBo 4.10 obv. 46 NH, KUB 17.28 IV 58 NS; *ḫu-ul-le/i-e-ez-zi* KUB 36.98a obv. 5 OH/NS (with dupl. *ḫu-ul-[-]* KBo 3.22 obv. 34 OS), KUB 47.89 III 5 NS, KUB 58.77 IV 5<sup>92</sup> NS; *ḫu-ul-la-i*

<sup>90</sup> Melchert refers to these verbs as *hurnai-* and *hurnuwai-*.

<sup>91</sup> The stem *hurna-* was compared to Skt. *vār-*, CLuw. *wa-a-ar-*, Toch. A *wär* ‘water’, PIE *\*(H)weh<sub>1</sub>-r-* (EWAia II: 545). Pokorny 1959: 1182f. attributes *ḫaivō* to the root *\*wren-* along with OHG *wrennio*, OSax. *wrēnio* ‘stallion’. However, the most plausible was the connection of *hurna-* to Gr. *ḫaivō* ‘to sprinkle’ (Peters 1980: 23<sup>18</sup>, not accepted in LIV: 259<sup>1</sup>). Oettinger (1979: 151) and Kimball (1999: 248) trace *hurna-* back to PIE nasal infix stem *\*h<sub>2</sub>wr̥-né-h<sub>1</sub>-*. If Gr. *ḫaivō* were related to Hittite verb, this formation could be plausibly reconstructed for PIE.

<sup>92</sup> So correctly García Trabazo-Groddek 2005: 200 with note 1 contra *ḫu-u-ul-li-e-iz-[-zi]* in HW<sup>2</sup> III: 686.

KBo 6.28 rev. 29 NH, KUB 31.59 III 26 NS; *hu-ul-la-a-i* KBo 6.29 III 42 NH, KUB 26.50 rev.9 NH; *hu-u-ul-la-i* HKM 47 obv. 5 MS

**2pl. pres. act.** *hu-ul-la-at-te-ni* KBo 16.98 I 6 NH, KUB 26.34 rev. 5 NS

**3pl. pres. act.** *hu-ul-la-an-zi* KBo 6.3 II 12 OH/NS, KUB 17.21 IV 19 MH/MS, KUB 35.148 IV 7 OH/NS; *hu-u-ul-la-an-zi* KBo 6.5 III 8 OH/NS (dupl. to KBo 6.3 II 12)

**1sg. pret. act.** *hu-ul-la-nu-un* KBo 2.5 II 11 NH, KBo 3.22 obv. 11, 15 OS, KBo 5.8 III 29 NH, KUB 23.14 III 5 MH/NS, KUB 31.64 III 10 OH/NS, KUB 33.106 IV 13 NH; *hu-ul-la-a-nu-[un]* KUB 23.21 III 28 MH/NS; *hu-ul-li-ya-nu-un* KBo 10.2 I 35, II 16 OH/NS, KUB 1.1 II 25 NH (with dupl. KBo 3.6 II 9), KUB 14.3 I 25 NH, KUB 23.33 5 OH/NS

**3sg. pret. act.** *hu-ul-li-it* KBo 3.1 I 29 OH/NS, KBo 3.38 obv. 15, 31 OH/NS, KBo 3.46 obv. 25 OH/NS, KBo 14.18 9 NH, KBo 22.2 rev. 8 OH/MS, KUB 12.26 II 23 NH, KUB 19.11 IV 39 NH, KUB 36.99 rev. 4 OS; *hu-ul-li-ya-at* KBo 2.5 + III 40 NH, KBo 14.3 IV 33 with dupl. KUB 19.18 I 28 NH, KUB 14.22 I 6 NH; *hu-u-ul-li-ya-at* KUB 19.8 III 30 NH; *hu-ul-li-i-e-et* KUB 14.15 I 29 NH; *hu-ul-li-iš* KBo 3.38 rev. 24 OH/NS (dupl. to *hullit* KBo 22.2 rev. 8); *hu-ul-la-aš* Bo 299/1986 I 98 NH

**1pl. pret. act.** *hu-ul-lu-mi-en* KUB 23.21 obv. 29 MH/MS; *hu-ul-lu-um-me-[* KBo 3.15 6 NS; *hu-u-ul-li-ya-u-en* KUB 23.16 III 9 NS

**3pl. pret. act.** *hu-ul-le-er* KBo 3.18 rev. 8 OH/NS, KBo 3.38 obv. 32 OH/NS, KUB 31.124 II 12 MH/MS; *hu-ul-le-e-er* KBo 3.16 rev. 2, 3, 4 OH/NS

**3pl. pres. med.** *hu-ul-la-an-ta-ri* KUB 17.28 IV 45 MH/NS

**3sg. pret. med.** [*hu-ul*]-*la-at-ta-ti* KBo 3.29 14 OH/NS; *hu-ul-la-ta-at* KUB 14.17 II 29 NH

**3sg. imp. act.** *hu-ul-la-ad-du* KUB 35.148 IV 8 OH/NS

**3sg. imp. med.** *hu-la-da-ru* KBo 3.29 15 OH/NS with dupl. KBo 8.41 5 OH/NS

**part. n. pl. c.** *hu-ul-la-an-te-eš* KUB 24.8 II 18 OH/NS

**verbal noun n. sg.** *hu-ul-la-tar* KUB 29.1 II 36 OH/NS; *hu-ul-la-a-tar* KBo 21.8 III 15 MH/MS; *hu-u-ul-lu-mar* KBo 14.4 I 28 NH

**impf. 1sg. pret.act.** *hu-ul-li-iš-ke-nu-un* KBo 44 III 60 NH

**impf. supine** *hu-ul-la-an-ni-wa-an* KBo 32.19 III 42 MH/MS; *hu-ul-li-iš-ke-u-wa-an* KBo 3.6 II 25 NH

This verb is often translated as ‘to strike’ or ‘to defeat’, but ‘to smash’ (cf. HED 3: 363ff.) seems to be the original meaning. In descriptions of battles, *hulle-* is often used to express an utter destruction of the enemy, cf. the following examples from the Annals of Mursili: *nu=mu* DINGIR<sup>MEŠ</sup> *peran huyer nu* <sup>LÚ</sup>KUR *hullanun n=an=kan kuenun* “the gods furthered me, I defeated the enemy, and I slew him” (KBo 2.5 II 10-11; *nu* <sup>LÚ</sup>KUR *hullanun n=an=kan* INA <sup>HUR.SAG</sup> *Elluriya sarā uiyanun n=an=kan kuwaskenun* (KBo 5.8 III 29-31) “I defeated the enemy, chased him up to Mt. Elluriya, and kept slaying him” (transl. by HED 3: 364-365). The meaning ‘to smash’ also works well for physical destruction of seals and tablets (for examples see HW<sup>2</sup> III: 668) and, metaphorically, for orders and words.

Already in the texts usually dated as OS, there are two different stems, *hulla-* in KUB 37.223 (CTH 547, Liver models) and *hulle-* or *hulli-*<sup>93</sup> in KUB 29.32 4, 5 (CTH 292, Laws) and KUB 36.99 rev. 4 (CTH 2, Zalpa). But the most interesting distribution is in KBo 3.22 (CTH 1, Anitta), where we have *hu-ul-la-nu-un* in obv. 11, 15 and *hu-ul-li[-iz-zi]* in obv. 35. KUB 37.223 has been recently dated by de Vos (2013: 103ff.) to the 15<sup>th</sup> century<sup>94</sup>. Therefore, the original stem in the singular must have been *hulle/hull-*. As for *hullanun*, the vowel *-a-* is often found in the 1Sg. in this type, s. also *zi-in-na-mi* KBo 41.42 I 15 NS, *har-na-mi* KBo 40.272 6 MS; only two *mi*-conjugation forms of 1sg. are attested with a vowel other than *-a-*: *du-wa-ar-ni-nu-un* KUB 41.19 rev. 8 MH/NS and *zi-in-ni-nu-un* (Oettinger 1979: 311, NH). The origin of this *-a-* is not clear; in my opinion, it is hardly an analogy to 3pl. As Kloekhorst points out to me, *-a-* instead of expected *-e-* is attested in other verbal types as well, e.g.

<sup>93</sup> The vocalism here may be either /i/ and /e/, since the sign LI may be read as /li/ as well as /le/; IZ and IT may also be read as /et/ and /ez/. In later copies of OH texts we have *hu-ul-li-iš* and *hu-ul-le-e-ez-zi*; the latter form can be also read as *hu-ul-li-e-ez-zi*, pointing to a stem *hullie-*. The verb *zinni-* ‘to finish’, which also has an infix and must be structurally similar, regularly shows *-i-*, but that can be graphic, see further 3.2.1.3-4. In the following text I will refer to this verb as *hulle-*.

<sup>94</sup> Cf. also Beckman 1983b: 102 and n. 25 who calls the text “Middle Hittite in language and script”.

*u-wa-mi* (OS) < *\*h<sub>2</sub>ou-h<sub>1</sub>ei-mi* (for the reconstruction see Kloekhorst 2008: 992). See further 3.2.1.1-5.

In New Hittite, there are several innovations in the conjugation of this verb: a secondary *ye/a*-stem and, since Hattusili III, the *hi*-conjugation endings (cf. Otten 1973: 47). On the transition of some infixed verbs of this type to the *hi*-conjugation in New Hittite see 3.2.2.

A plene spelling of the stem final *-a-* is attested in *hu-ul-la-a-nu-[un]* in KUB 23.21 III 28, a NS copy of the Annals of Arnuwandda I; this *-a-*, however, is likely to be of secondary origin, see above. A possible plene spelling of the stem final *-e-* is found in *hu-ul-le-e-ez-zi*, attested in KUB 36.98a obv. 5, a NS copy of Anitta-text, and also in NS texts KUB 47.89 III 5 and KUB 58.77 IV. However, due to the ambiguity of the sign LI, these forms may be read as *hulliēzzi* and belong to the *-ye/a-* stem. So there is no reliable evidence for */ē/* in the sg. of *hulle-*.

Oettinger (1979: 261ff.) argued that *hulle-* is cognate with Hitt. *walh-* ‘to strike’. In his view, *hulle-* goes back to a simple thematic stem *\*hw<sub>l</sub>H-e/o-* (ibid. 264). This is unlikely, however, since in the plural the stem is *hull-*, cf., e.g., *hu-ul-lu-mi-en* KUB 23.21 obv. 29 MH/MS, rather than expected *\*hullamen*. This connection was later rejected by Melchert (1994: 82).

According to Puhvel (HED 3: 367f.), the verb contains a nasal infix and is related to Gr. ἀλίσκομαι, aor. ἐάλων ‘to be taken, conquered’. Melchert (op. cit.) presents this etymology using the standard version of the laryngeal theory: *\*h<sub>2/3</sub>w<sub>l</sub>-né-h<sub>1</sub>-/ h<sub>2/3</sub>w<sub>l</sub>-n-h<sub>1</sub>- > *\*hulne-/huln-*, arguing that the final laryngeal should be *\*h<sub>1</sub>-* in order to explain the stem vowel *-e-* in the OS forms. Therefore, he rejects Puhvel’s etymology, since the Greek forms point to a *\*h<sub>3</sub>* in the auslaut.*

Yet another etymology for *hulle-* was suggested by Kloekhorst (2008: 360), who compares *hulle-* with OIr. *follnadar* ‘to rule’, Lat. *valeō* ‘be strong’ and Lith. *vėldu* ‘to own’, Goth. *waldan* ‘to rule’, OCS *vladq* with root extension *\*-d<sup>h</sup>-*. The PIE root is then *\*h<sub>2</sub>welh<sub>1</sub>-* (in LIV this root is presented as *\*welH-*).

Most promising, however, is the connection with Toch.A *wäl-* ‘to shatter’, for which Hackstein (1995: 302 with n. 43) suggests the root *\*h<sub>2</sub>welh<sub>1</sub>-*<sup>95</sup>; if so, it makes a perfect match for *hulle-* both formally and semantically. For a detailed discussion of the Tocharian verb, see Malzahn 2010: 893f.

The *e/ø* (or *i/ø*) ablaut of *hulle-/hull-* is similar to that of *zinni-/zinn-* ‘to finish’ and is best explained as *\*h<sub>2</sub>/₃wl-né-h<sub>1</sub>-(C)/\*h<sub>2</sub>/₃wl-n-h<sub>1</sub>-(V)-*, even though it is not clear whether the expected sg. stem *\*hulnē-* is actually attested. Cf. further 3.2.1.1-5.

**hu(wa)rni-** ‘to hunt’

**inf. I** *hu-ur-nu-wa-an-zi* KUB 33.121 II 8, 10, 12 NH

**impf. 3sg. pres. act.** [*h*]*u-u-wa-ar-ni-iš-ke-ez-zi* KBo 12.59 I 7 OH/NS; *hu-ur[-ni-iš-ke-ez-zi]* KBo 12.59 I 2 OH/NS

The meaning, contexts and synonyms for *huwarni-* are discussed by Hawkins (2006: 52ff.). In KBo 12.59 I 7, *huwarniskezzzi* stands besides *siyataalliskezzzi*, which is translated by CHD Š: 341 as ‘spear hunts’. To my mind, this means that *huwarni-* either refers to a different kind of hunting or to a different activity, rather than to hunt in general.

The alternation *-u/-uwa-* is a Hittite innovation (Rieken 2001: 372ff., Kloekhorst 2007: 433), so that the older stem must be *hurni-* with a zero grade of the root. The conjugation type is not clear; the form of the infinitive suggests that the plural stem was *hu(wa)rn-* and there was no laryngeal in the auslaut, but this form is NH and is not reliable. I list this verb as *huwarni-*, but it can be *huwarna-* as well.

Čop (1960: 2) compared *huwarna-* to Gr. ἀρι-βάτης ‘fast-going’ (Frisk 1960 I: 189 gives no etymology for this word), Serbo-Croatian *júriti* ‘to chase’, Latv. *vert* ‘to run’, Lith. *varýti* ‘to drive, chase’. Puhvel (HED 3: 433) follows this etymology and reconstructs PIE *\*A<sub>1</sub>ew-r-* (without a laryngeal in auslaut). Kimball (1999: 248) analyzes *hu(wa)rne-* as *\*h<sub>2</sub>wṛ-né-h<sub>1</sub>-* from PIE *\*h<sub>2</sub>wer(h<sub>1</sub>)-*. This etymology is not

<sup>95</sup> Hackstein did not connect *wäl-* ‘to smash’ with Hitt. *hulle-* and compared the latter to Toch. AB *wäl-* ‘to die’, for which cf. Malzahn 2010: 893.

universally accepted. For instance, according to LIV, p. 685, the Baltic verbs and OCS *variti* belong to the root 2.\**wer-* ‘to run’. The Etymological Dictionary of Slavic languages (ESSJa 8: 179, 198f.) compares Serbo-Croatian *júriti* to OCS *jarъ* ‘strong, hard’, traditionally connected with Gr. ζωρός ‘strong’ (about unmixed wine); one, however, has to assume the loss of \*-*u-* in the latter two forms (\**iōur-* > \**iōr-*), which is not convincing.

Since *huwarni-* hardly means just ‘to hunt’, the very connection of *huwarne-* to roots with the meaning ‘to run, move fast’ is questionable. Instead, one can compare *huwarni-* to TochAB *wār-* ‘to practice’, which has no etymology either, see Malzahn 2010: 885, Adams 2013: 645.

**iskuna(hh)-** ‘stain, stigmatize’

**3sg. pres. act.** *iš-ḥu-na-a-an-zi* KBo 6.26 II 19 OH/NS; *iš<sup>1</sup>- ḥu-na-an-[zi]* KUB 29.29 rev. 3 OS

**3sg. pret. act.** *iš-ku-na-aḥ-ḥi-iš* KUB 1.16 III 42 OH/NS

**1pl. pret. act.** *iš-ḥu-na-aḥ-ḥu-u-en* KUB 23.13 obv. 4 NS

**part. n.acc. pl. n.** *iš-ku-na-an-ta* KBo 4.2 I 45 OH/NS

**impf. 3pl. pres. act.** *iš-ku-ne-eš-kán-z[i]* KBo 12.19 I 6 OS

There is still no communis opinio whether *iskuna(hh)-* and *ishuna(hh)-* belong to the same verb. The possibility of reconciling these stems with each other follows from instances of the interchange of *k* and *h* after *s* (Melchert 1994: 170, e.g., *hameskant-* instead of *hameshant-* ‘spring’ and *ishis-* instead of *iskis-* ‘back, rear’).

As there have been different interpretations proposed, all the contexts are given below.

1) KBo 6.26 II 17ff. *takku* <sup>LÚ</sup>SIPA.UDU *našma* <sup>LÚ</sup>AGRIG.MUNUS-*an* ELLETAM *dāi* (18) *n=aš naššu* <INA> MU.2.KAM *našma* INA MU.4.KAM GÉME-*ēšzi* (19) *Û* DUMU<sup>MEŠ</sup> *išhunānzi išhuzziyašš=a* (20) *ŪL kuiški ēpzi*

Hoffner (1997: 140), in his edition of Hittite Laws, leaves this form without translation: “If a shepherd or administrator takes a free woman in marriage, she will

become a slave after either two or four years, (whereas) they shall ... her children, but no one shall seize (their?) belts.” Puhvel translates *ishunānzi* here as follows: “and they degrade the children” (HED 1/2: 426).

2) KUB 1.16 III 41f. (with dupl. KBo 29.29) *huhhas=mis* (42) [*Labar*]nan DUMU-san<sup>URU</sup> *Šanahuitti iskunahhiš*

This sentence is translated by Puhvel (op. cit.) as follows: “my grandfather demoted his son Labarnas to Sanahuitta”. Sommer and Falkenstein (1938: 12-14), however, suggest the following translation “Hat man nic[ht]? seine Söhne abtrünnig gemacht? Mein Grossvater hatte seinen Sohn [Labar]na in Sanahuitta *als Thronfolger verkündet*. [Nachher ab]er haben seine Diener (und?) die Grossen, seine Worte zunichte gemacht(?) [und] den Papahdilmah auf den Thron gesetzt!”. This interpretation has become rather common, see, e.g., Beckman in Hallo, Younger 2003: 81, Klinger in Janowski, Wilhelm 2005: 145. Puhvel admits that this translation is also possible (incidentally, it would significantly change our conception of the historical events), but notes that in this case *iskunahh-* would have to be separated from both *ishunahh-* and *iskunant-* (HED 1/2: 227f.).

3) *nu=wa=ssi :wastazza ishunahhuen* in a rather broken context in KUB 23.13 Vs 4 is translated by HED 1/2: 427 as follows: “he has not vanquished us with arms, ... and we have stigmatized his depredations”. Cf. the translation by Sommer (1932: 315): “(3) [Al]s? [der Grossvater meiner Sonne] die Arzava-Länder [überwält]igte, hat er uns doch mit der Waffe (4) [nicht überwältigt!...] ... Wir haben ihm ... getrotzt (??)!” Güterbock (1992: 240), after a detailed discussion of the meaning of *ishunahh-* (ibid. 237ff.) and its possible relation to *ishunau(war)* ‘upper arm’, hesitantly translates this as “we have erased (our) transgression”.

4) for KBo 4.2 I 45 GAD<sup>HL.A</sup> *iškunanta parkunuzzi*, Puhvel’s translation of *iskunanta* as ‘stained’ is appealing.

5) The fragment KBo 12.19 is regrettably badly broken.

All the contexts listed above allow for different interpretations and do not give any clear indication whether we deal with one or two different verbs.

Oettinger (1979: 156ff.) and Weitenberg (1984: 114) assumed two different verbs, *ishunahh-* ‘treat badly’ and *iskunahh-* ‘to mark, stain’. The former should formally go back to an infixed stem *\*sh<sub>2</sub>uneh<sub>2</sub>-* from PIE *\*sh<sub>2</sub>eu<sub>h</sub><sub>2</sub>-* and the latter should formally go back to *\*skuneh<sub>2</sub>-* from PIE *\*skeuh<sub>2</sub>-*. The second root could be related to Skt. *skauti*, *skunā́ti*, *skunóti* ‘to poke rake’, sometimes used as a technical term for slashing ears (Oettinger 1979: 157, cf. HED 1/2: 428). Eichner (1979: 205f.) and LIV: 561 follow this connection. The presence of a laryngeal in this root is doubtful however, cf. Vedic *á-prati-ṣkuta-*; the form *skunā́ti* is only attested in the Dhātupāṭha, see EWAia II: 751. A single spelling of *-n-* in the Hittite forms may also point to the absence of laryngeal, since in the infixed verbs we usually see geminated *-nn-*, as, e.g., in *sunna-* and *zinni-*.

Puhvel (HED 1/2: 426ff.) attributes all these forms to a single verb with a meaning ‘to stain, denounce, degrade’<sup>96</sup>. He analyzes these forms as denominative verbs with a suffix *-na-* from *\*isku-*, parallel to Gr. αἰσχύνω ‘to make ugly, dishonor’ < *\*αἰσχύς* (αἰσχρός ‘ugly’), with *-ahh-* being yet another suffix added to this stem. Kimball (1999: 218) explains the initial vowels α- in Greek and *i-* in Hittite as strong and weak stems of the root. But Peters (1980: 76 with note 37a) correctly notes that we would expect an initial laryngeal to be preserved in the Hittite word. He proposes an alternative cognate for αἰσχύνω, namely Goth. *un-aiwisks* ‘without shame’.

According to Puhvel, *-na-* is a suffix with a causative meaning (on which cf. Kronasser 1966: 561ff.). While suffix *\*neH-* may be reconstructed for PIE, there are no certain instances of such formations in Hittite (see 3.6.2). Besides, if *-na-* already has a causative meaning, it is unclear why the stem would need to be enhanced with the factitive/causative suffix *-ahh-*.

Ünal (1990: 360) notes that the meaning ‘to disgrace, denounce’ “is guessed according to the context of the Laws §175 (cf. Sommer, Falkenstein 1938: 164, n. 1) and is not obligatory. The context would also allow the meaning ‘to hurl, to shoot’ and possibly the sense of ‘to dismiss, to throw, to push aside (children)’ as well.” If so,

<sup>96</sup> In HW<sup>2</sup> (I: 192ff.) these forms are also kept together, but they are interpreted differently – ‘to mark, designate’.



*ishunahh-* and *ishunāi-* can be derived from a nominal stem *\*ishuna-*, related to *ishuwa-* ‘to throw, discard’. The meaning ‘to discard’ is acceptable for *iskuna(hh)-* as well, so these forms may also belong to this root. Nevertheless, whatever the etymology of the discussed forms is, they are not likely to have an infix.

**ista(n)h-** ‘to taste’

**2pl. pres.act** *iš-taḥ-te-e-ni* KUB 41.8 III 31 MH/NS; *iš-taḥ-te-ni* KBo 10.45 III 40 MH/NS

**3pl. pres.act.** *iš-taḥ-ḥa-an-zi* KUB 33.89+ 14 NS

**3sg. pret.act.** *iš-taḥ-ta* KBo 3.38 obv. 5 OH/NS, KUB 33.84 6 MH/NS

**impf. 3sg. pres. act.** *iš-taḥ-ḥi-eš-ke-ez-zi* KBo 59.98 8 NS

**impf. 3sg. pres. act.** *iš-ta-an-ḥi-eš-ke-et* KBo 8.41 12 OH/NS

This verb is generally believed to have a nasal before *-h-*, whether it should be a nasal infixed version of PIE root *\*steh<sub>2</sub>-* ‘to step’ (e.g., LIV: 590, Lorenz, Rieken 2011: 92) or a part of the root (HED 1/2: 463). While /n/ is always deleted before a consonant cluster in OS texts (see Shatskov 2006 and 2.1.9), in Middle and New Hittite it is often restored. Thus, *-n-* would be expected in more than just one form out of seven. Note that it is also missing before a single consonant in *iš-taḥ-ḥi-eš-ke-it* and *iš-taḥ-ḥa-an-zi*.

It seems likely that in this case we are dealing with an intrusive nasal. For the phenomenon see Kimball 1999: 318f., who gives following examples: *ma-AN-za-až-zi* KUB 33.120 I 21 for usual *ma-za-až-zi*, *ḥa-AN-te-eš-na-až* KUB 17.5 I 6 (OH/NS) for *ḥa-at-te-eš-na-až*. All her examples have a nasal elsewhere in the word, though.

Formally this root resembles PIE *\*steh<sub>2</sub>-* ‘to stand, step’, but the semantic development is not clear to me.

**kīnāi-** ‘to assort’

**2sg. pres. act.** *ki-na-a-ši* KBo 12.124 III 20 NS

**3sg. pres. act.** *ki-na-iz-zi* KBo 52.26 III 30 MH/NS, KUB 7.1 I 38 MH/NS, KUB 8.38 + 44.63 III 13 NH, KUB 24.10 III 19 MH/NS, KUB 44.61 obv. 19 NS; *ki-i-na-iz-zi* KUB 44.64 II 12 NS; *ki-na-a-iz-zi* KBo 21.17 12 NS, KBo 21.74 III 9 NS, KUB 51.18 obv. 17 NS

**3pl. pres. act.** *ki-na-an-zi* KUB 34.65 4 NS; *ki-na-a-an-zi* KUB 51.44 rev. 4 MS?

**1pl. pret. act.** *ki-na-u-en* KUB 43.74 obv. 14 NS

**2pl. pret. act.** *ki-na-a-at-ten* KUB 13.20 IV 2 MH/NS

**Part. acc. sg. c.** *ki-na-an-da-an* KUB 44.63 II 17 NH; *ki-na-an-ta-an* KUB 44.63 II 18 NH

**Part. n.-acc. sg. n.** *ki-na-an* KUB 17.28 III 31 OH/NS, KUB 27.16 III 25 NS; *ki-na-a-an* KBo 35.157 II 4 MS?, KUB 17.28 III 44 OH/NS; *ki-i-na-a-an* KUB 42.14 I 11 NH

**Part. g. sg. c.** *ki-i-na-a-an-ta-aš* IBoT 1.31 obv. 21, 22 NH; *ki-na-a-an-da-aš* KUB 42.23 obv. I 9 NH

**Part. acc. pl. c.** *ki-na-an-du-uš* KBo 21.20 I 17 NS

**Part. n.-acc. pl. n.** *ki-na-an-ta* KUB 58.107 I 6 MH/NS; *ki-na-a-an-ta* VBoT 58 IV 23 OH/NS; *ki-na-an-da* KUB 22.70 rev. 34 NH

**Part. d. pl. c.** *ki-i-na-an-ta-aš* KUB 47.73 obv. 9 MH/NS

The meaning of this verb has been a matter of a discussion. Oettinger (1979: 162f.) translated it as ‘to grind, crush’. He compares it to Hitt. *kīnu-* ‘to break, open’, assuming them to be parallel formations *\*ki-nā-* and *\*ki-nu-* from *\*kineh<sub>3</sub>-* and *\*kinew-* respectively. Puhvel (HED 4: 181f.) argues that the meaning is ‘to sift, sort’ and compares *kīnai-* to Greek δια-ττάω ‘to sift’, σῶσι < *\*kyeA<sub>2</sub>-* (but cf. Frisk 1960 I: 386, who provides a different etymology for the Greek verb). CHD P: 369 translates *kinai-* as ‘mixes?’.

In CTH 402, *kīnāi-* is replaced with *sarra-* ‘to separate’ in a duplicate: *kinaiizzi* in KUB 24.10 III 19 and KBo 52.26+ III 30 vs. KUB 24.11 III 26 *sarra[nzi]*<sup>97</sup>. Yet

<sup>97</sup> Note that there is also a difference between sg. and pl. In the following sentence we see *lahuwai* in KUB 24.10 III 20, whereas KUB 24.11 III 27 and KBo 21.8 III 9 have *lahuwan*. This may point to a slightly different version in general.

another duplicate KBo 21.8 III 8 has *sessaranzi* ‘to sieve’. Puhvel translates these phrases as “she sifts everything separately”, “she divides everything separately” and “they strain everything apart” (HED 4: 180).

The interchange of *kīnāi-* with *sarra-* ‘to separate’ supports the meaning ‘to sift’ (cf. Jacob-Rost 1972: 46) against CHD’s translation ‘to mix’. However, in KUB 44.63 II 18-9, in the phrase *kinantan [h]assuwangazzi* it is *hassuwangai-* that means ‘to sift’. Perhaps, the most appropriate translation would be ‘to sort’. The connection of *kīnāi-* to *δια-τάω* ‘to sift’ is still valid. However, the single *-n-* and plene in the root in *kīnāi-* is unparalleled for verbs with a nasal infix. In fact, *kīnāi-* rather seems to be a denominal formation, from *\*kih<sub>2</sub>-no-*, which would explain the plene spelling of the *-i* in the root, single *-n-* and the conjugation type better. Cf. similar arguments in Kloekhorst 2008: 477.

**munnāi-** ‘to conceal, hide’

**1sg. pres. act.** *mu-un-na-m[i]* KBo 25.196 8 OS; *mu-un-na-a-mi* KUB 36.44 IV 5 OH/NS; *mu-na-a-mi* KUB 26.33 III 14 NH

**2sg. pres. act.** *mu-un-na-a-ši* KBo 5.3+ I 30, II 56 NH, KBo 5.4 obv. 9 NH, KBo 16.46 obv.? 17 MS, KUB 6.48 II 7 NH, KUB 13.9 III 14 MH/NS, KUB 14.1 obv. 35 MH/MS, KUB 19.26 I 25 NH

**3sg. pres. act.** *mu-un-na-a-iz-zi* KUB 13.4 ii 48 MH/NS, KUB 21.41 IV 12 Šupp. I, KUB 23.72 rev. 50 MH/MS, KUB 36.127 Rs 13 MH/NS, *mu-un-na-iz-zi* KBo 16.25 I 14, 58 MH/MS, KUB 8.81 II 14, III 3 MH/MS, KUB 21.42 I 18, l.Rd. 5 NH; *mu-un-na-a-zi* KUB 26.1 IV 2 NH

**2pl. pres. act.** *mu-un-na-at-te-ni* KBo 16.27 IV 18 MH/NS, KUB 23.77 58 MH/MS, KUB 31.115 22 OH/NS; *mu-u[n-n]a-it-te-ni* KUB 26.1 III 56 NH

**3pl. pres. act.** *mu-un-na-a-an-zi* KBo 24.18 I 6 MS; *mu-un-na-an-zi* KBo 3.1 II 29 OH/NS, KUB 13.20 I 4 MH/NS, KUB 40.102 I 9 NS

**3sg. pret. act.** *mu-un-na-a-it* KBo 16.16 III 9 NH, KUB 14.1 rev. 42, 49 MH/MS, KUB 36.127 rev. 12 MH/MS; *mu-un-na-it* IBoT 1.33 6, 7, 8 et passim NS; *mu-ú-un-na-a-it* KUB 17.5 I 4 OH/NS

**3pl. pres. act.** *mu-un-na-a-er* KUB 33.121 II 14 NH

**3sg. pres. med.** *mu-un-na-at-ta-ri* VBoT 24 II 17 MH/NS; *mu-un-na-it-ta-ri* KBo 13.71 rev. 3 NS, KUB 43.55 IV 15 pre-NH/NS

**3sg. pret. med.** *mu-un-na-it-ta-at* KUB 18.5+ I 27 MS, KUB 33.120 I 38 MH/NS; *mu-un-na-a-i-it-ta-at* HKM 47 rev. 53 MH/MS

**3pl. pret. med.** *mu-un-na-an-da-at* KBo 25.18 rev. 9 OH/NS, KUB 18.5 I 38 MS; *mu-un-na-an-t[a-at]* KUB 18.5 II 47 MS

**2sg. imp.act.** *mu-un-na-a-i* KBo 2.3 II 36 MH/NS

**3sg. imp.act.** *mu-un-na-a-id-du* KBo 39.8 III 28 MH/MS

**2pl. imp.act.** *mu-un-na-at-ten* KUB 43.71 obv. 16 NS

**3pl. imp.act.** *mu-un-na-an-du* KUB 48.1 III 12 OH/NH

**part. n.-acc. sg. n.** *mu-un-na-an* KUB 14.18 5 NH

**part. d.-l. sg.** *mu-un-na-a-an-ti* KBo 12.122 11 NS

**impf. 2pl. pres. act.** *mu-un-na-eš-kat-te-ni* KUB 43.71 obv. 14 NS

The verb *munnaī-* is a synonym of *sanna-* ‘to hide’, and they are used in similar contexts in New Hittite. In earlier texts, the objects of *munnaī-* are people or things, while *sanna-* is also used to refer to information, see Puhvel 2004 for details.

The stem *munnaī-* with a geminated nasal is similar to undoubtedly infixed verbs, such as *sunna-* ‘to fill’ or *zinni-* ‘to finish’. It is the conjugation type in *-āi<sup>mi</sup>* that makes *munnaī-* unusual, as *mi*-verbs with the *-āi/ā-* ablaut are generally denominatives, cf. Oettinger 1979: 357, Kloekhorst 2008: 132f. Thus, *munnaī-* is expected to be derived from a nominal stem *\*munna-*, which theoretically could in turn be derived from *\*mun-no-* or from *\*munH-o-*; I, however, do not know of any reasonable etymology for such a stem<sup>98</sup>. The infixed stems, on the other hand, should not end up in the *hatraī-*-type.

To my mind, the only plausible option to connect *munnaī-* with an infixed stem is to assume a *\*h<sub>2</sub>* in the auslaut, to which the suffix *\*-ye/o-* was added. The problem

<sup>98</sup> It can hardly go back to *\*muH-no-*. The development *\*-VHnV-* > *\*-VnnV-*, for which see Kimball 1999: 337, is uncertain, cf. Melchert 1994: 162, Kloekhorst 2008: 493, 957. Note that we see a different development in *kīnāi-* ‘to assort’, which is very likely to go back to *\*kih<sub>2</sub>-no-* (see the entry for *kīnāi-* above and 3.4.1).

with this suggestion is that hypothetical *\*mu-ne-h<sub>2</sub>-ye/o-* should have joined the *taiē*-class. We know, however, that some verbs, e.g., *istantāie/a-* ‘to linger’, shifted to the *hatrāi*-class in the history of Hittite. *Munnāi-* must have completed this shift earlier, prior to its first attestations.

There are several etymologies for *munnnāi-* on the record. It was compared to Gr. ἀμύνω ‘to ward’, implying a semantic development ‘to conceal’ > ‘to ward off’ (see HEG 5-6: 232), also to Lat. *moveō* ‘to move’ (e.g., Eichner 1975: 84 and 1988: 135, assuming *munnai-* < *\*mu-né-h<sub>1</sub>-* ‘to set in motion’, also Kimball 1999: 415), and finally to Gr. μύω, Hom. μύσαν ‘to close (eyes)’ (Oettinger 1979: 161, HED 6: 192f.). The first etymology is formally impossible, as the initial *\*h<sub>2</sub>* of ἀμύνω should have been preserved in Hittite.

Lat. *moveō* is usually compared to Skt. *mīvati* ‘to push’ and PIE *\*m(i)eu<sub>h</sub><sub>1</sub>-* ‘to move’ (LIV: 445f.). Hitt. *mau(ss)-* ‘to fall’ and Toch.AB *musk-* ‘to disappear’ are also believed to belong to this root. Semantically, the comparison of *munnnāi-* and Toch.AB *musk-* is especially appealing, as the meaning of the Hittite verb looks like a causative to the meaning of Tocharian verb. However, the direct comparison of *munnnāi-* and Toch.AB *musk-* is difficult, as the latter cannot go back to *\*m(i)eu<sub>h</sub><sub>2</sub>-*, since *\*uh<sub>2/3</sub>* is likely to yield *\*-wa-* in Tocharian (see the discussion in Hackstein 1995: 17ff.); on the other hand, *\*h<sub>1</sub>* is hardly possible for *munnnāi-*, since the shift of *\*mu-ne-h<sub>1</sub>-*/*mu-n-h<sub>1</sub>-* to the *hatrāi*-type would be difficult to explain.

The remaining connection of *munnnāi-* to Gr. μύω ‘to close (eyes)’ is then the best option, as it is possible both formally (cf. Beekes 2010: 988) and semantically. There are three passages where *munnnāi-* is used with *šakuwa-* ‘eyes’, and at least in Madduwatta it certainly means ‘to close eyes (on something)’, cf. KUB 14.1 + KBo 19.38 rev. 49 *sākuwa=pat munnnāit* “(The first time Madduwatta [placed himself] under the oath. [Later he transgressed the oath]. He still did not attack them), but rather hid his eyes” (CHD L-N: 331).

Puhvel (HED 6: 193) argues that *munnnāi-* contains a transitivizing suffix *-nā-*, seen also in *sunna-*, *iskuna-* and some other verbs. This, however, is hardly correct, since the gemination of *-nn-* cannot be explained in this way; see further 3.6.2.

**sanna-** ‘to hide, conceal’

**1sg. pres. act.** *ša-an-na-aḥ-ḥi* KBo 10.37 I 34 OH/NS

**2sg. pres. act.** *ša-an-na-at-ti* KBo 4.14 III 70 NH, KBo 5.3 I 28, II 53, 65 Supp. I, KBo 5.9 II 49 NH, KBo 19.43 II 55 Supp. I, KUB 14.1 obv. 35, 38 MH/MS

**3sg. pres. act.** *ša-an-na-a-i* KUB 13.4 III 82 pre-NH/NS, KUB 21.37 obv. 49 NH, KUB 26.1 IV 40, 41 NH

**2pl. pres. act.** *ša-a-na-at-te-e-ni* KUB 13.3 III 18 MH/NS; *ša-an-na-at-te-e-ni* KBo 12.39 rev. 17 NH; *ša-an-na-at-te-ni* KUB 13.4 IV 19 pre-NH/NS, KUB 26.55 rev. 5 MS?

**3pl. pres. act.** *ša-an-na-an-zi* KUB 14.3 I 65 NH

**2sg. pret. act.** *ša-an-na-aš* KUB 6.3 22 NH

**3sg. pret. act.** *ša-an-né-eš-ta* KUB 14.4 III 10, IV 35 NH, KUB 19.55 obv. 18 NH; *ša-an-ni-iš-ta* KBo 9.144 2 NH

**3pl. pres. act.** *ša-an-né-er* KUB 16.83 obv. 45 NH

**3sg. pres. med.** *ša-an-na-at-ta* KUB 36.127 rev. 10, 13 MH/NS

**part. n.-acc. sg. n.** *ša-an-na-an* KUB 60.43 obv. 3 NS

**verbal noun** *ša-an-nu-um-mar* KUB 26.1 IV 19 NH

**impf. 2sg.pres. act.** *ša-an-na-aš-ke-ši* KUB 14.1 rev. 17 MH/NS, *ša-an-ni-iš-ke-ši* IBoT 1.33 102 NH

On the semantic difference between *sanna-* and *munnāi-* ‘to hide’, see above and Puhvel 2004. According to Oettinger (1979: 159) and Kimball (1999: 415), *sanna-* reflects a PIE nasal infix stem *\*sṇ-n-h<sub>2</sub>-* from the root *\*senh<sub>2</sub>-*, which is also seen in Lat. *sine*, Gr. ἄνευ, cf. HEG S: 809. This etymology, including semantics<sup>99</sup>, is accepted by Kloekhorst (2008: 719), who follows Schrijver (1991: 218) in reconstructing the root as *\*senh<sub>1</sub>-*. The problem is that this root is attested elsewhere only in adverbs or their derivatives. So a better solution is to derive *sanna-* from the adverb *\*sanna-* ‘isolated’, seen in *sannapi sannapi* ‘scattered, here and there’ (Melchert 2009:

<sup>99</sup> If *\*senh<sub>1</sub>-* means ‘inaccessible, far’, then a factitive to it could well mean ‘to conceal’.

336ff.)<sup>100</sup>. The root etymology remains essentially the same. The New Hittite form *šannummar* in KUB 26.1 IV 19 is analogical to similar forms of *sunna-* ‘to fill’ and *tarna-* ‘to let, let go’.

**sunna-** ‘to fill’

**1sg. pres. act.** *šu-un-na-aḫ-ḫi* KBo 3.38 rev. 17 OH/NS, KUB 33.70 III 10, 11 OH/NS

**2sg. pres. act.** *šu-un-na-at-t[i]* KUB 15.22, 14 NS

**3sg. pres. act.** *šu-un-na-a-i* e.g., KBo 19.129 obv. 8 NS, KUB 10.91 III 7' NS; *šu-un-na-i* e.g., KUB 6.3 IV 51 NH, KUB 54.85 obv. I 6' OH/MS, ABoT 21+ rev. 49 MH/MS; *š[u]-un-ni-e-ez-zi* KBo 24.4 + IBoT 4.14 rev.12/17 NS; *šu-un-ni-ez-zi* KBo 40.67 II 6, IV 4 MH/NS; *šu-un-ni-ya-zi* KUB 6.45 + IV 9, 14, 19, 24 NH with dupl. KUB 6.46 I 46, 50, 54, 58, 62 NH

**1pl. pres. act.** *šu-un-nu-me-ni* KBo 32.15 II 16 MH/MS

**2pl. pres. act.** *šu-un-na-at-te-ni* KUB 13.4 IV 18 OH/NS

**3pl. pres. act.** *šu-un-na-an-zi* KUB 11.30 obv. III 11vOH/NS', KUB 25.32+ II 33 OH/NS, KUB 35.165 rev. 21 OH/MS; *šu-un-ni-an-zi* KUB 9.32 I 40 NH, KUB 55.58 obv. 30, 32 MH/NS, IBoT 3.148 III 21, 22 MH/NS; *šu-un-ni-ya-an-zi* KBo 15.24 II 44 MH/NS, KUB 7.47 obv. 13 NS, KUB 20.35 IV 3 NS, IBoT 4.30 OBV. 4 NS

**1sg. pret. act.** *šu-un-na-aḫ-ḫu-un* KBo 10.2 I 21, II 23 OH/NS; *šu-un-ni-ya-nu-un* KBo 10.2 I 37 OH/NS

**2sg. pret. act.** *šu-un-ni-eš-ta!* (Oettinger 1979 158<sup>50</sup>)

**3sg. pret. act.** *šu-un-na-aš* KBo 3.57 II 9' OH/NS; *šu-un-ni-eš* HT 21+ 15 Supp. I; *šu-un-ni-iš-ta* KUB 1.1+ II 79 NH; *šu-un-ni-ya-at* KBo 19.111 4 MH/NS

**3pl. pret. act.** *šu-un-ni-ir* KBo 20.114 V 9 MH/NS, KUB 18.39 obv.? 5' NH

**2sg. imp. act.** *šu-un-ni* KUB 6.45 III 37 NH

**3sg. imp. act.** *šu-un-ni-ed-du* KUB 12.58 IV 13 NH

<sup>100</sup> Melchert (ibid.) notes that the choice of “the largely recessive *hi*-conjugation for such secondarily created verbs may seem surprising”. However, there are suffixed stems, e.g., factitives in *-aḫ-* and imperfectives in *-anna/i-* that follow the *hi*-conjugation, and there are verbs that shift to the *hi*-conjugation in the New Hittite period (e.g., *zinni-* ‘to finish’), so this type was not eclipsed even at the latest stages of Hittite.

**2pl. imp. act.** *šu-u-<un->ni-iš-tén* KUB 13.3 II 27 NS

**3pl. imp. act.** *šu-un-na-an-du* KBo 39.15 III 9 MS?

**Inf.I** *šu-un-nu-ma-an-zi* KBo 21.34+ IV 37 MH/NS, KUB 21.17 III 10 NH

**Verbal noun n.sg.** *šu-un-nu-mar* KBo 1.42 III 51 NH, KUB 55.31 rev. 2 MS

**Verbal noun g.sg.** *šu-un-nu-ma-aš* KUB 59.29 III 17 NS

A secondary stem *sunniya-* follows the *mi*-conjugation. According to Laroche (1973: 91ff., cf. Melchert 1994: 73), a stem *sūniya-* also belongs to this root, but Oettinger (1979: 159) and Kloekhorst (2008: 786f., with a detailed discussion) are certainly correct that *sūniya* is a distinct verb that means ‘to dip’.

The verb *sunna-* is related to *sū-* ‘full’ and *suwai-* ‘to fill’<sup>101</sup>. The adjective *sū-* is an *u*-stem adjective (see Kloekhorst 2008: 794) and is likely to be deverbative. The spellings *šu-u-ú* and *šu-u-ú-un* (KBo 25.72 20 OS?) point to a disyllabic stem (HEG S: 1127, Kloekhorst *ibid.*), which means that there was a laryngeal in this root. Oettinger (1979: 158f.) assumed that the root contained a root final *\*h<sub>2</sub>*, but it would have been preserved in *sū-*, cf. Melchert 1994: 72. Alternatively, the root *\*seuh<sub>3</sub>-* ‘(to be) full’ (LIV: 539) has been reconstructed based on the shape of Palaic form *sūnat* ‘filled’ (this form allegedly reflects a generalized full grade of the root *\*sunéh<sub>3</sub>-t*, see Melchert 1994: 73, Kimball 1999: 416). Further, in my view, it was the *\*h<sub>3</sub>* in *\*sunóh<sub>3</sub>-ti* (< *\*sunéh<sub>3</sub>-ti*) that triggered the shift to the *hi*-conjugation, since the vocalism *\*-o-* was typical for *hi*-verbs. According to Eichner (1975: 97), *sunna-* and *tarna-* ‘to let, let go’ also originally belonged to the *mi*-conjugation, but he assumed a different trigger for their shift to the *hi*-conjugation and reconstructed *\*h<sub>2</sub>* in the auslaut. For details, see note 104 below.

There have been several attempts to find reflexes of this root outside Anatolian. Oettinger (1979: 159) adduced Skt. *sūte* ‘gebiert’ (LIV: 538, *\*seuH-*), assuming a semantic development ‘be full’ > ‘to give birth’ (cf. Weitenberg 1984: 139f.), while Sturtevant connected *sunna-* to Skt. *sunóti* ‘to squeeze, press’ (LIV: 537f. *\*seu-* to squeeze’, cf. EWAia II: 713). The most immediate and plausible etymon, however, is

<sup>101</sup> On the relation between *sū-* and *suwai-* and on the derivation of *sunna-* cf. Weitenberg 1984: 138f.



Slav. \**sŷtŭ* ‘satiated’ < \*‘filled’ (Rikov 1994, Young 2007), which then goes back to \**suh<sub>3</sub>-to-*.

The geminated *-nn-* in *šunna-* is generally explained as a result of assimilation of a nasal and laryngeal between vowels in the plural \**sunh<sub>3</sub>-énti* > *sunnanzi*, which was later generalized throughout the paradigm. Note that the Palaic form has a plene spelling in the root and a single nasal. The Hittite and Palaic forms must be parallel formations, and the difference between them is yet to be explained. Melchert (1994: 202) argues that /u/ in Pal. *sūnat* was lengthened under accent in an open syllable, in which case we have to assume a rather unexpected shift of accent to the first syllable.

**tarna-** ‘to let, let go, release’

**1sg. pres. act.** *tar-na-aḥ-ḥé* KBo 17.1 IV 38 OS, KBo 17.3+ III 3 OS; *tar-na-aḥ-ḥi* KBo 17.1 III 3 OS, KBo 18.123 rev. 3 MS

**2sg. pres. act.** *tar-na-at-ti* KUB 41.23 obv. II 16, 17 NS; *tar-na-a-ši* KBo 19.70 rev. III 42 NH; *tar-na-ši* KB 4.2 I 25, II 21, III 8 OH/NS

**3sg. pres. act.** *tar-na-a-i* KBo 17.43 I 11 OS, KUB 14.8 rev. 27 NH, KBo 20.60 rev. V? 13 NS; *tar-na-i* KBo 17.43 I 3 OS, KBo 22.1 22 OS, KBo 25.36 III 11 OS, KBo 27.137 rev. III 19 NS; *tar-na-iz-zi* KUB 28.4 I 25b NS

**1pl. pres. act.** *tar-nu-um-me-ni* KBo 16.8 III 14 NH, KBo 18.135 obv. 8 NS; *tar-nu-um-me-e-ni* KUB 14.16 rev. III 37 NH; *tar-nu-um-ma-ni* KBo 2.8 I 15 NS

**2pl. pres. act.** *tar-na-at-te-ni* KUB 31.105 14 MS; *tar-na-te-ni* VBoT 30 rev.? 5 NS

**3pl. pres. act.** *tar-na-an-zi* KBo 25.31 obv. II 15, rev. III 2, 5 OS, KUB 21.29 II 40 NH

**1sg. pret. act.** *tar-na-aḥ-ḥu-un* KBo 6.29 obv. II 27 NH, KBo 17.3+ III 4 OS, KBo 31.221+ 8 MS

**3sg. pret. act.** *tar-na-aš* KBo 17.1 III 5 OS, KBo 22.2 obv. 3 MS; *tar-ni-eš-ta* KUB 13.34 IV 4 NS, KUB 21.33 11 NH; *tar-ni-iš-ta* KUB 1.1 + rev. IV 49 NH

**1pl. pret. act.** *tar-nu-mi-en* KBo 3.45 10 OH/NS; *tar-nu-en* KBo 3.60 rev. III 7 OH/NS; *tar-nu-um-me-en* KUB 43.76 obv. 6 NS; *tar-nu-me-en* KUB 42.102 r. Kol. 11 NS

**2pl. pret. act.** *tar-na-at-te-en* KUB 14.10 obv. I 7 NH, KUB 24.4+ obv. 22 MS

**3pl. pret. act.** *tar-ni-ir* KBo 3.34 obv. II 19 OH/NS, KUB 33.106 II 10 NS, ABoT 1.65 obv. 10 MS; *tar-nir* KBo 3.36 obv. 24 OH/NS, KUB 23.79 obv. 2 MS?

**2sg. imp. act.** *tar-na* KUB 17.10 III 24 OH/MS, KUB 33.49 II 1 NS; *tar-ni* KBo 10.45 obv. I 45 MH/NS, KBo 15.2 IV 19 NS

**3sg. imp. act.** *tar-ni-eš-du* KBo 26.131+ rev. 4 NS, KUB 36.87 rev. IV 17 NS; *tar-na-ú* KBo 38.154 I 5, 6, 7 MS; *tar-na-a-ú* KUB 7.13 I 19 NS; *tar-na-ad-du* HKM 45 obv. 17 MH/MS

**2pl. imp. act.** *tar-na-at-tén* KUB 15.34 obv. II 25 MS; *tar-na-at-te-en* VSNF 12.32 5 NS

**3pl. imp. act.** *[tar]-na-<<aš->>an-du* KUB 31.108 obv. I 9 MH/NS

**3sg. pres. med.** *tar-na-at-ta-ri* KBo 27.176 obv. 3 MS?; *tar-na-ta-ri* KBo 23.93 rev. IV 10 NS

**3pl. pres. med.** *tar-na-an-ta-ri* KUB 34.11 rev. 3 NS

**3sg. pret. med.** *tar-na-at-ta-at* KBo 5.8 obv. I 22 NH

**verbal noun n.sg.** *tar-nu-mar* KUB 5.1 rev. III 69, 75 NS

**verbal noun g.sg.** *tar-nu-um-ma-aš* KUB 13.20 I 11 MH/NS; *tar-nu-wa-aš* IBoT 2.66 rev. 9 NS, KUB 58.96 rev.? 5 NS

**inf.I** *tar-nu-ma-an-zi* KUB 5.6 II 58 NS; *tar-nu-wa-an-zi* KBo 46.130 11 NS

**part. n.sg. c.** *tar-na-an-za* KBo 19.132 rev. 11 NS, KUB 9.28 III 24 NS

**part. n.-acc. sg. n.** *tar-na-an* IBoT 3.26 7 NS

**part. n.-acc. pl. n.** *tar-na-an-ta* KBo 32.224 obv. 13 MS

**Impf. 1sg. pres. act.** *tar-ši-ik-ke-mi* HKM 46 rev. 27 MS

**Impf. 3sg. pres. act.** *tar-ši-ik-ke-ez-zi* KUB 23.28 + obv. I 14 OH/NS; *tar-ši-kán-zi* KBo 3.29 I 20 OH/NS; *tar-ni-eš-ker* KUB 21.29 II 5 NH

The alleged stem *tarnahh-*, which would entail a reconstruction of  $*h_2$  (thus Oettinger 1979: 155) is based on one form in KBo 3.45 obv. 2, which is actually to be read as *w[ā]tarnahhan* (Kloekhorst 2008: 847), participle of *watarnahh-* ‘to instruct’.

Kloekhorst argues (2008: 847) that the imperfective forms *tar-ši-ke/a-* (KUB 23.72 II 41, HKM 46 rev. 26) and *tar-aš-ke-et-tén* (KUB 24.9 II 42) in fact reflect the unfixed stem  $*terk-$ , where /k/ is dropped between consonants. However, a loss of /n/ in  $*tarn-ske/a-$  seems more likely, compare *hassike-* from *hanna-* ‘to judge’, see Hoffner, Melchert 2008: 43.

Several scholars connected *tarna-* to Hitt. *tarh-* ‘overcome, excel’ and further to the PIE root  $*terh_2-$ , Skt. *táratī* ‘to excel’, Lat. *intrāre* (cf., e.g., HEG T: 195). This comparison is to be abandoned on semantic grounds, since a much more compelling semantic fit is found in Toch. AB *tärk-*, pres. *tärnā-* ‘to release’<sup>102</sup>, and perhaps in Arm. *dařnam* ‘to turn’<sup>103</sup>.

As for the PIE root, assumed for Hitt. *tarna-* and TochAB *tärk-*, LIV: 635 gives  $*TerKh_2-$ , where T may be  $*t$  or  $*d^h$ , and K cannot be a labiovelar. According to Melchert (1994: 81), the Hittite verb reflects  $*tr(K)neh_2-$ . Kloekhorst (2008: 847) argues that the laryngeal here could not be  $*h_2$ , as it would have yielded 3sg. pres.  $*tarnahhi$ ; in his view, a voiced guttural cannot be reconstructed for this root, since it would not have been dropped between consonants. So his reconstruction is  $*terk/kh_{1/3-}$ . In order to explain the *hi*-conjugation of *tarna-*, it is better to assume  $*terKh_3-$ , since the  $*o$  in  $*terKnóh_3-$  (<  $*terKnéh_3-$ ) could trigger the shift of *tarna-* to the *hi*-conjugation, see further the entry for *sunna-* above and 3.2.2. Eichner (1975: 97) also argued that *sunna-* and *tarna-* originally followed the *mi*-conjugation; he, however, reconstructed  $*h_2$  in the auslaut<sup>104</sup>.

<sup>102</sup> This etymology was suggested by Benveniste (1932: 142).

<sup>103</sup> Attempts have been made to bring together these etymologies. Schmidt (e.g., 1989: 311) argued that  $*h_2$  in Tocharian can be reflected as *-k-*. He also pointed out (1992: 104f.) that a sequence *-rkn-* should not necessarily have been simplified to *-m-* (which is implied for *tärnā-*), as it did not happen in *kärkñä*, 3 Sg. Conj. of *kärk-* ‘to bind’. Therefore, in his view, *-k-* in *tärk-* is the result of ‘hardening’ of  $*h_2$ . In this case, Toch. *tärk-* may also belong to the root  $*terh_2-$ , and Hitt. *tarna-* is related to Hitt. *tarh-*. The issue of laryngeals hardening in Tocharian is, however, very controversial, see Malzahn 2010: 460<sup>1</sup>.

<sup>104</sup> He argued that 1pret. act. *tarnahhun* could have been parsed by the speakers both as a *mi*-conjugation form *tarnahh-un* and as a *hi*-conjugation form *tarna-hhun*, and it was the ambiguity of this form and the similarity of 1pl. *tarnummeni* to

**duwarni-** ‘to break’

**1sg. pres. act.** *du-wa-ar-na-aḥ-ḥi* KBo 22.137 III 4 NS, KBo 32.19 II 28 MH/MS, *du-wa-ar-na-a-aḥ-ḥi* Oettinger 1979: 308

**2sg. pres. act.** *du-wa-ar-na-at-ti* KUB 15.19 obv. 7 NS

**3sg. pres. act.** *du-wa-ar-ni-iz-zi* KBo 2.3 I 25 MH/MS, KBo 6.4 I 27, 30 OH/NS, KBo 30.2 7 NS, KBo 35.156+ III 3 NS, KBo 39.258 11 NH, KBo 53.27 II 55, III 44 MH/NS, KUB 7.53+ II 53 NH, KUB 9.28 III 26 MH/NS, KUB 12.34 I 24 MH/NS, HKM 60 rev. 24 MH/MS; *tu-wa-ar-ni-iz-zi* KBo 39.8 IV 13 MH/MS; *du-wa-ar-ni-zi* KBo 6.3 III 70 OH/NS; *tu-wa-a[r-n]i-iz-zi* KBo 6.3 I 29 OH/NS; *tu-wa-ar-na-zi* KBo 6.3 I 31 OH/NS; *du-wa-ar-na-i* KBo 39.8 II 11 MH/MS, KUB 24.9 II 43 MH/NS, KUB 48.118 13 NH; *tu-wa-ar-na-i* KBo 24.1 I 8, 12 MH/MS; *du-wa-ar-na-a-i* KBo 52.26+ II 36 MH/NS, KUB 26.1 III 64 NH; *du-wa-ar-ni-ya-az-zi* KUB 17.27 II 36 MH?/NS; *du-wa-ar-ni-ya-zi* KUB 17.28 II 49 MH?/NS; *du-wa-ar-ni-ya-iz-zi* KUB 30.15 I 35 MH?/NS; *du-wa-ar-ni-e-ez-zi* ; *du-wa-ar-na-a-iz-zi* ; *tu-wa-ar-na-a-iz-zi*

**3pl. pres. act.** *tu-wa-ar-na-an-zi* KBo 39.8 IV 14 MH/MS; *du-wa-ar-na-an-zi* KBo 2.3 III 37 MH/MS, KBo 6.34 II 43, III 38 MH/NS, KBo 13.146 I 17 OH/NS, KUB 9.6+ III 23 MH/NS; *tu-wa-ar-ni-ya-an-zi* KBo 20.34 obv. 10, 12 OH/NS; *du-wa-ar-ni-ya-an-zi* KUB 30.19+ IV 27 MH?/NS

**1sg. pret. act.** *du-wa-ar-ni-nu-un* KUB 41.19 rev. 8 MH/NS; *du-wa-ar-na-aḥ-ḥu-un* KUB 13.35 IV 25, 30 NH

**3sg. pret. act.** *du-wa-ar-ni-it* KBo 10.45 III 33 MH/NS, KBo 34.24+ obv. I 18, KUB 17.10 I 33 OH/MS; *du-wa-ar-na-aš*

**3pl. pret. act.** *tu-wa-ar-ni-er* KBo 3.34 I 9 OH/NS, KUB 36.104 obv. 7 OS, *du-wa-ar-ner* KUB 40.95 II 13 NH

**3sg. pres. med.** *du-wa-ar-na-at-ta-ri* KBo 5.1. I 4 NH, KBo 32.14 II 48, III 43 MH/MS; *du-wa-ar-na-ad-da-ri* KBo 5.1 IV 40 NH

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corresponding forms of some *hi*-verbs (e.g., *dummeni* of *da*<sup>hi</sup> ‘to take’) that caused the transfer of *tarna-* to the *hi*-conjugation.

**3sg. pret. med.** *du-wa-ar-na-at-ta-at* KBo 32.14 lower edge 71 MH/MS; *du-wa-ar-na-ad-da-at* KBo 5.1 I 45 NH

**3sg. imp. act.** *du-wa-ar-na-ad-du* KBo 53.27+ II 53 MH/NS; *du-wa-ar-na-du* KBo 2.3 II 42 MH/NS *du-wa-ar-na-a-ú* KBo 6.34 III 41 MH/NS;

**3pl. imp. act.** *du-wa-ar-na-an-du* KBo 6.34 II 52 MH/NS, HKM 66 obv. 19 MH/MS

**3sg. imp. med.** *tu-wa-ar-na-at-ta-ru* KBo 39.8 III 34, IV 15 MH/MS; *du-wa-ar-na-at-ta-ru* KBo 53.27+ III 47 MH/NS, Bo 6166 II 10 n.a.

**part. n.sg. c.** *du-wa-ar-na-an-za* KUB 5.7 rev. 29 NS, KUB 22.70 rev. 49 NH

**part. n.pl. c.** *du-wa-ar-na-an-te-eš* KUB 5.7 rev. 29 NS

**part. n.pl. n.** *du-wa-ar-na-an-da* KBo 10.34 I 24 NS

**verbal noun n.sg.** *du-wa-ar-nu-wa-ar* KUB 3.95 8 NS

**verbal noun g.sg.** *du-wa-ar-nu-ma-aš* KUB 26.92 16 NH

**Inf. I** : *du-wa-ar-nu-ma-an[-zi]* KUB 44.4+ rev. 23 NH

**Impf. 3sg. pres. act.** *tu-wa-ar-ni-iš-ke-ez-zi* KBo 39.8 III 33, 36 MH/MS; *du-wa-ar-ni-eš-ke-ez-zi* KBo 53.27+ II 52 MH/NS; *du-wa-ar-ni-iš-ke-ez-zi* KBo 9.106+ II 48, 51 MH/NS; *du-wa-ar-n[i]-<iš>ke-ez-zi*<sup>105</sup> KBo 2.3 II 41 MH/NS

Hitt. *duwarni-* displays forms of several verbal types. The only OS attestation *tu-wa-ar-ni-ir* does not help us with the conjugation type. In MS texts, we have a *hi*-conjugation 1sg. *du-wa-ar-na-aḫ-ḫi* and 3sg. *t/du-wa-ar-na-i* as well as a *mi*-conjugation 3sg. *t/du-wa-ar-ni-iz-zi* and *du-wa-ar-ni-it*. *Hi*-forms of the 3sg. must be an innovation since in the copies of the Old Hittite texts we usually see *mi*-forms. A secondary stem *duwarniya/e-* appears first in NS. All things considered, *duwarni-* must have originally belonged to the same type as *zinni-*, but *hi*-forms must have arisen quite early.

In one instance, there is an interchange of active and middle forms in different copies of the same passage: *tuwarnattaru* (KBo 39.8 III 34), *[duwa]rnittaru* KBo

<sup>105</sup> So Miller 2004: 88, HEG T: 495. The reading *du-wa-ra-qš-ke-ez-zi* (for which cf. Oettinger 1979: 311) is possible, but unlikely in view of *du-wa-ar-ni-eš-ke-ez-zi* in the duplicate KBo 53.27+ II 52 (MH/NS).

9.106 + KBo 8.75 + KBo 42.87 II 49 obv. *duwarnadu* (KBo 2.3 II 42), *duwarnaddu* (KBo 42.15 + Bo 68/11+ 896/z(+) II 53) and *duwarnan[du]* (KBo 44.19 + 1306/ III 7') (Miller 2004: 89f., cf. Neu 1968b: 76).

Oettinger (1979: 151) included *duwarni-* in the list of verbs that contain a nasal infix and are derived from the roots ending in *\*-h<sub>1</sub>-*. It is usually compared to Skt. *dhvāratī* 'to hurt, damage'. The assumed PIE root is *\*d<sup>h</sup>wer(H)-* (Pokorny 1959: 277, LIV: 159f.; HEG T: 492ff.). Within Anatolian, *duwarni-* was compared to CLuw. *lawarr-* 'to despoil, strip' (thus CHD L-N: 49) or 'to break' (Carruba 1966: 17f., HEG T: 494), but Kloekhorst (2008: 521) is correct in rejecting this connection since the first *-a-* in *lawarr-* cannot be explained if the root was *\*d<sup>h</sup>werh<sub>1</sub>-*, and for a graphic vowel we would expect the spelling *\*\*lu-wa-*.

Oettinger traced *duwarni-* back to *\*d<sup>h</sup>w<sub>ṛ</sub>-né-h<sub>1</sub>-/d<sup>h</sup>w<sub>ṛ</sub>-n-h<sub>1</sub>-*. He grouped it together with verbs in *\*-h<sub>1</sub>-* along with *zinni-* 'to finish' and *harna-* 'to sprinkle' (Oettinger 1979: 151), to which later other scholars added *hu(wa)rni-* 'to hunt?' (Kimball 1999: 248) and *hulle-* 'to defeat' (HED 3: 367f., Melchert 1994: 82).

The main problem with this analysis is that the Sanskrit data does not support the existence of the laryngeal in this root. While some Sanskrit forms point to the presence of a laryngeal (e.g., pres. *dhūrvati*, aor. *ádhūrṣata*, noun *dhūrvaṇ-*), other show no traces of it (e.g., *adhruta-* or *satya-dhvṛt-*). In order to reconcile these forms, an *anit* root is often assumed; the long vowel in *dhūrvati* is explained via analogy to *tūrvati* 'to overcome' (Gotō 1987: 191). Lubotsky (1997: 143) also considers the long vowel to be secondary in this form. LIV: 159f. also presents this root as *\*d<sup>h</sup>uer-*, though it notes that there could have been a variant *\*d<sup>h</sup>uerh<sub>1</sub>-* because of the Hittite verb.

Another peculiarity of *duwarni-* is that it seems to have a full grade of the root, in contrast to the zero grade expected in nasal stems, as in, e.g., *hulle-* 'to smash' (on the zero grade see Szemerényi 1996: 270ff., especially note 2 on page 272, Meier-Brügger 2003: 170). This full grade can nevertheless be secondary. As Rieken (2001) has shown, there are instances, where *-u-* changes to *-(u)wa-* in certain environments. This development is suggested for attested variants *huhhurta-* and *huwahhurti-* 'throat' or

for the *huwarniske-/ hurniske-* discussed above. But the full grade *-wa-* has been attested for *duwarni-* since the earliest texts (e.g., *tu-wa-a[r- ...]* KBo 6.2 I 20 (OS)) and it never alternates with *-u-*. Therefore, it is highly unlikely that *-wa-* in *duwarni-* is a result of the same phonetic development of *-u-* as in *huwarniske-/ hurniske-*. Kloekhorst's idea (2007: 455f.) that the sequence *\*CuRCC-* developed into *\*CuwaRCC-* would be more compelling, and the stem *duwarni-* could reflect a plural stem *\*d<sup>h</sup>wṛ-n-h<sub>1</sub>*, but it is not applicable here, since this root is unlikely to have had a laryngeal in the auslaut.

Summing up, there are two indications that *duwarni-* is not a reflex of a PIE infixed stem – the full grade of the root and the likely *aniṭ* character of this root in Sanskrit.

Eichner (1973: 75) suggested that *duwarni-* is a denominal formation *\*d<sup>h</sup>wor-ne-yé-* from deverbal adjective *\*d<sup>h</sup>wor-no-*. Melchert (1984: 36, 114<sup>71</sup>) corrects it to *\*d<sup>h</sup>wer-ne-yé-*, as *-w-* is lost between dental stop and *-o-*, cf. *idālu-* ‘bad’ < *\*h<sub>1</sub>edwol-* and *dān* ‘twice’ < *\*dwoyom*. This adjustment was accepted by Schulze-Thulin (2001: 390 and note 10) who argued that it was *e*-vocalism of the root that did not allow *duwarni-* to change to the *hi*-conjugation. Later, Melchert (1997: 134f.) compared this type to Luwian verbs that have the endings *-īti/-idi* in 3sg. pres. and *-ainti/-eidi* in 3pl. pres.; in order to explain lenition in Luwian endings, he assumed analogical displacement of accent to the root after the iterative deverbal type in *\*-ó-eye-*. These adjustments lead to a reconstruction *\*d<sup>h</sup>wér-ne-ye-*.

There are several objections to this analysis as well. First, there are counterexamples to the development *\*érC- > árC-*, e.g., *merzi* ‘to disappear’ (cf. the discussion in Melchert 1994: 136-7, Kimball 1999: 161-3). Second, there are no other certain examples for this type of verbal formation. Melchert (1984: 36f.) suggested that *usniye/a-* ‘to offer’ (< *\*usna-* < *\*us-no-*, cf. Skt. *vasná-* ‘price, wealth’, Lat. *vēnum dare* ‘to put up for sale’, Hitt. *wās-* ‘to buy’) did not belong to the *-ye/a-*-type in Old Hittite. This assumption is based on the *e*-vocalism of the only OS attestation *uš-ne-eš-kat-ta* (KUB 29.29 II (8), 12, 15, Laws). Indeed, in OS texts all *-ye/a-*-verbs consistently have *-i-* before the suffix *-ske/a-*, cf. *[(e-et-r)]i-iš-ke-ez-zi* KUB 6.2 IV 59

(OS, Laws), *ha-az-zi-iš-k[án-zi]* KBo 25.35 II 5 (OS?, KI.LAM festival), *pí-iš-ši-iš-ká[n-zi]* KBo 17.36 III 8 (OS, CTH 665), whereas *-e-* is attested for *hatrāi-* (*ha-at-re-eš-ke-ez-zi* KBo 22.1 rev. 22, OS), *iskuna-* (*iš-ku-ne-eš-kán-z[i]* KBo 12.19 I 6', OS), and *palwāi-* (*pal-ú-eš[-kan-zi]* KBo 20.13 rev. 17 (OS), *?[pa]l-ú-e-eš-kán-zi* KBo 17.28 9, OS)). Therefore, *usniye/a-* could belong to the *hatrāi-* type, but it could also continue *\*usneyé-*, a formation parallel to *\*d<sup>h</sup>wer-ne-yé-*<sup>106</sup>. The latter option is less likely, but if correct, it may provide some support for the existence of denominatives in *\*'-(n)e-ye-*; however, in my opinion, the existence of this type remains hypothetical.

An alternative etymology was suggested by Barton (1993: 554f.) who argued that *duwarni-* is not related to the Sanskrit words. He claimed that the present stem *dhūr-va-* in fact reflects PIE *\*d<sup>h</sup>rh<sub>2</sub>-wé-*, in the same manner as *tūrvati* reflects *\*trh<sub>2</sub>-wé-* (PIE *\*terh<sub>2</sub>-*, Hitt. *tarh-* ‘be able, overcome’, cf. LIV: 633; for similar Sanskrit examples see Pinault 1987-88: 329<sup>39</sup>). The vocalism *-u-* in *dhur-* is conditioned by the vocalism of the present stem, *dhūr-va-*, in the same way as for the root *\*terh<sub>2</sub>-* along with variant *tira-* (e.g., thematic Present *-tirāti*) there are allomorphs with *-u-*, such as *tura-* (caus. *turayante*). Barton traced Skt. forms back to *\*d<sup>h</sup>erh<sub>2</sub>-*, to which he also compared Gr. *θραύω* ‘to break’<sup>107</sup>. If so, *duwarni-* does not have any cognates in other languages at all<sup>108</sup>. As to the etymology of *duwarni-*, Barton accepts Forrer’s comparison with Hitt. *\*dudduwar* ‘numbness’ (*dudduwarant-* ‘paralyzed, lame’, *dudduwares-* ‘to become paralyzed’). In his view, *duwarni-* is derived from *\*duwar-*, which is in turn consists of *\*du* (<*\*d<sup>h</sup>eu-* ‘run’?) + *\*-ar-* (as *-ar-* in *nahsar-att-* ‘fear’, *tusgar-att-* ‘joy’). This etymology is very unlikely and has not received much acclaim, cf. HEG T: 485.

Summing up, since the root was *\*d<sup>h</sup>wer-* rather than *\*d<sup>h</sup>werh<sub>1</sub>-* (as the cognate Vedic forms show), *duwarni-* did not have an infix. This verb may go back to a

<sup>106</sup> In Melchert 1997: 135 a Proto-Anatolian retraction of accent is assumed for this type. It is not clear if this retraction can be applied to *usniye/a-*.

<sup>107</sup> In Pokorny 1959: 274 *θραύω* and deverbative adjective *θραυστός* are traced back to *\*dhreu-s-* (cf. LIV: 158), where also Goth. *driusan* ‘to fall’, Welsh *dryll* ‘fraction, scrap’, Latv. *druska* ‘crumb’ belong to.

<sup>108</sup> EWAia I: 802 distinguishes *\*d<sup>h</sup>ru-* ‘to deceit’ as a separate root. If so, Lat. *fraus* belongs here and is not related to *duwarni-*.



denominative formation *\*d<sup>h</sup>wér-ne-ye-* < *\*d<sup>h</sup>wer-ne-yé-*, but the existence of this type in Hittite is uncertain as there are no unambiguous examples for it.

All in all, *duwarni-* is likely to be an Anatolian or pre-Hittite formation, but its internal structure remains unclear. The stem final *-ni-* must be a (complex) suffix. The reason *duwarni-* is often believed to be infixed is that *duwarni-* resembles *zinni-* both in stem final *-ni-* and the conjugation type. Perhaps, *-ni-* in *zinni-* ‘to finish’ (and other similar infixed verbs) was reinterpreted as a suffix, which was added to the stem *\*dwar-*. This, however, remains highly hypothetical. Cf. also 3.4.4.

**ūnh-** ‘to release, empty’

**3sg. pres. act.** *u-uh-zi* KBo 40.343 4 MS; *u-un-ḫa-zi* KUB 35.79 obv. ? I 5 MS;

**3pl. pres. act.** *u-un-ḫa-an-zi* KBo 17.74+ rev. IV 23 OH/MS, KBo 25.61+ obv. ? II 3 OS, KBo 29.92 obv. II 12 MS, KUB 30.40(+) obv. I 18 NS, KUB 39.57 obv. I 9 NS

**1sg. pret. act.** *u-un-ḫu-un* KUB 31.77 obv. I 16 NH

**3sg. pret. act.** *u-uh-ta* KUB 31.77 obv. I 12 NH; *u-un-Vḫ-da* KBo 18.180 rev. 10 NS

**3pl. pret. act.** *u-un-ḫe-er* KUB 42.20 9 NH

**3pl. imp. act.** *u-un-ḫa-an-du* KBo 60.313 3 NS

**part. n.-acc. sg. n.** *u-un-ḫa-an* KUB 56.14 obv. I 11 NS

**impf. 3sg. pres. act.** *u-un-ḫe-eš-ke-ez-zi* KUB 31.77 obv. I 12 NH

This verb has been interpreted differently by various scholars, cf. HEG U: 57. In a recent article, Lorenz and Rieken (2011) convincingly argued that it means ‘to empty, release’, which was suggested earlier for one of the contexts by Otten. They also proposed a new etymology, namely that it is an infixed stem from the root *\*h<sub>1</sub>weh<sub>2</sub>-*, seen also in Lat. *vānus* ‘empty’, Gr. ἐάω ‘to allow, release’ etc. For the root see Nussbaum 1998: 81ff.

If *ūnh-* reflects an infixed stem with a zero grade of the root *\*h<sub>1</sub>unh<sub>2</sub>-*, a consistent plene in the root syllable would be quite unusual. The initial *u-uC-* may reflect /o/,

which is lowered from /u/ in certain environments, including in front of nasals, for which see Rieken 2005, Kloekhorst 2008: 52ff.

As for the preservation of /h/, the laryngeal was not assimilated between a syllabic resonant and a vowel, e.g., in *palhi* ‘broad’ < \**p<sub>l</sub>h<sub>2</sub>-i-* (Melchert 1994: 55, cf. also Melchert 1984: 44<sup>91</sup>). The case of *unh-* shows that the assimilation of laryngeals preceded the resyllabification /w<sub>ḡ</sub>/ > /un/, as the plural stem \**h<sub>1</sub>w<sub>ḡ</sub>h<sub>2</sub>-énti* yielded \**h<sub>1</sub>unh<sub>2</sub>-énti* and eventually *unh-anzi* rather than \*\**unn-anzi*. The stem *unh-* was subsequently generalized through the paradigm<sup>109</sup>. For the rule \**w<sub>ḡ</sub>R* > *uR* between consonants see Melchert 1994: 126f., Kimball 1999: 247ff.

**walla-, walliye/a-** ‘to praise’

**1sg. pres. act.** *wa-al-la-ah-ḫi* KUB 31.127 III 37 OH/NS

**3pl. pres. act.** *wa-li-[y]a-an-zi* KUB 6.46 IV 28 NH

**impf. 3sg. pres. act.** *wa-al-li-eš-ke-ez-zi* KBo 5.6 I 4 NH

**walluske/a-** ‘to praise?’

**impf. 1sg. pres. act.** *wa-al-lu-uš-ke-mi* KUB 29.1 I 26 OH/NS

**impf. 3sg. pres. act.** *wa-al-lu-uš-ke-zi* KBo 32.16 III 6 MS, KUB 35.53 II 12 NS

**impf. 3pl. pres. act.** *wa-al-lu-uš-ká[n-zi]* KUB 34.53 II 13 MS

**impf. 2pl. pret. act.** *wa-al-lu-uš-ke-et-te-n=a-an* KUB 23.77 79 MH/MS

**impf. 2pl. pret. med.** *wa-al-lu-uš-ke-ed-du-ma-at* KUB 36.44 IV 14 MS

The verbal stems *walla-* and *walluske/a-* are usually grouped together, even though *walluske/a-* is mostly attested in poorly preserved contexts, so it is not absolutely certain that they are related (cf. Kloekhorst 2008: 952). The 1sg. form *wallahhi* (KUB 31.127 III 37 OH/NS) seems to point to the stem *walla-*; note though that 1sg. in *-ahhi* may occur in some other verbal types, e.g., *zinnahhi* from *zinni*-<sup>mi</sup> ‘to finish’.

<sup>109</sup> The generalization of the weak stem is typical for the Hittite infixed stems made to roots of the type \**C(R)eRH-*, see 3.5 below.

The interpretation of the stem *walluske/a-* is also disputed. Kimball (1999: 421) considers *wallu(ske/a)-* to be a phonetic variant of *walla-* and argues that the root-final laryngeal was vocalized between consonants in *\*walh<sub>1</sub>-ske/o-*, which resulted in *walluske/a-*. This is unlikely, since similar forms would be expected for, e.g., *hulle-* and *zinni-*, but are not attested. According to Melchert (1994: 81), the verbs *walla-* and *walluske/a-* reflect parallel formations *\*wal-neh<sub>2</sub>-* and *\*wal-neu-ske/o-* (cf. also Oettinger 1979: 490f. with note 82)<sup>110</sup>.

Within Hittite *walla-*, *walliye/a-* is related to *walliyatar* ‘(the song of) praise’ and perhaps to a hapax *walli-* ‘praise?’. In my opinion, the most probable source for these words is a root with a laryngeal in the auslaut<sup>111</sup>. Theoretically, *walla-<sup>hhi</sup>* may go back to an infixed stem *\*wl-n-H-* as well as to a stem *\*wolH-* (cf. 3sg. pres. *mallai* ‘to grind’ < *\*mólh<sub>2</sub>-ei*).

Oettinger (ibid.) compared *walla-* to Lat. *valēre*<sup>112</sup> ‘be strong’ (*\*welH-* ‘to be strong’, LIV: 617f.), Toch.A. *wäl*, Toch. B *walo* ‘king’. Melchert (1993: 252) connected *walla-* to CLuw. *walliya-* ‘to lift, raise’ and HLuw. *waliya-* ‘to exalt’. Semantically, the connection to Luwian verbs is preferable, but I do not know of any plausible cognates for a root *\*welH-* with a meaning ‘to raise, exalt’ or similar outside Anatolian. If *walla-*, *walliye/a-* is indeed related to *\*welH-* ‘to be strong’, it is very likely to go back to the infixed stem *\*wl-n-H-*, which is reconstructed for PIE on the basis of OIr. *follnadar* ‘to rule’ (LIV ibid.). This etymology is possible, but uncertain.

<sup>110</sup> The coexistence of both *-na-* and *-nu-* stems for one root is at best very rare. Kronasser (1966: 560) gives a list of several verbal roots with suffixes *-na-* and *-nu-*; in my opinion, most of Kronasser’s examples can be explained differently. The stems *iyantniya-* and *iyatnu-* are implied by participle *iyatniyant-* and adjective *iyatnuwant-*; the latter is better analyzed as *iyatn=(u)want-* (see HED 1/2: 351). The stems *kuennu-* and *tarnummeni* must have been assumed by Kronasser on the grounds of 1pl. *kuennummeni*, *kuennummen* and *tarnummeni*, as well as deverbative *kuennumar*; however, a similar connecting vowel /u/ is also attested in 1pl. forms in other verbs, e.g., *tumeni* for *dā-* ‘to take’, which is conditioned phonetically. The form *tarnuzi* KBo 2.8 III 21’ is explained by Oettinger (1979: 58<sup>45</sup>) as a back formation from *tarnummeni* after the model of *arnuzi* : *arnummeni*. *Lap(pa)nu-* is a causative form with a suffix *-nu-*, but *lappinai-* is derived from *lappina-* ‘wick’. It is not clear why *hahlanesk-* ‘to make yellow’ is compared to SA<sub>5</sub>-*nusk-* ‘make red’, these are two different stems. The variants *dankunu-* and *dankunesk-* are both real, but the latter is attested only once and may be an ad hoc formation. The only possible parallel for *\*wal-na-* : *\*wal-nu-* is *harna-* and *harnu-* ‘to sprinkle’. However, the internal structure and etymology of *harna-* and *harnu-* are not clear as well. Besides, there is no solid evidence for the verbal suffix *-na-* < *\*-neh<sub>2/3-</sub>* in Hittite, see 3.6.2. Nevertheless, the interpretation of *walluske/a-* as a *nu-* verb is very attractive.

<sup>111</sup> The geminate *-ll-* in these words must reflect *\*-lH-* or *-ln-*. The latter option is unlikely as *\*weln-* would be quite unusual for a PIE root; it is also hardly possible that *walla-*, *walluske/a-* and *walli-* each have a different nasal suffix (*\*-na-*, *\*-nu-* and *\*-ni-<sup>3</sup>*).

<sup>112</sup> Kloekhorst (2008: 360) compares Lat. *valeō* to Hitt. *hulle-* ‘to smash’; on the strength of this comparison de Vaan (2008: 652) suggests a final *\*h<sub>1</sub>* for this root.

**zinni-** ‘to finish’

**1sg. pres. act.** *zi-in-na-aḥ-ḥi* KBo 15.25 obv. 12 MH/MS; *ze-en-na-aḥ-ḥi* KBo 35.180 11 NS; *zi-in-na-aḥ[-ḥi]* KUB 57.3 obv. 16 NH; *zi-in-na-mi* KBo 41.42 I 15 NS

**2sg. pres. act.** *zi-in-ni-ši* KUB 29.1 I 5 OH/NS

**3sg. pres. act.** *zi-in-ni-zi* KBo 20.10 + I 5 OS, KBo 29.65 obv. I 9 MS?, KBo 44.92 rev. 9’ MS; *zi-in-iz-zi* KUB 7.41 IV 42 MH/MS?, Bo 8366 2 MH?/NS; *zi-ni-iz-zi* KUB 9.31 I 42 MH/NS; *zi-in-ni-iz-zi* KUB 25.36 V 12 OH?/MS, KUB 58.74 rev. 21 MH?/NS, KUB 60.41 III 20’ OS ([*zi-*]in-ni-iz[-zi]); *ze-en-ni-iz-zi* KBo 10.45 rev. IV 42 MH/NS; *zi-in-na-i* KBo 15.48 II 5 MH/NS, KUB 29.8 II 17 MH/MS; *zi-in-na-a-i* KBo 13.245 VI 20 OH/NS, KUB 15.31 I 27 MH/NS, KUB 15.32 + obv. I 29 MH/NS, KUB 22.70 rev. 67 NH, KUB 27.59 I 24 MH/NS; *ze-en-na-i* KBo 4.2 I 61 pre-NH?/NS, KBo 9.148 + rev. 11 NH, Bo 3220 rev. III 5 NS; *ze-en-na-a-i* KBo 41.159 rev. 43 NH

**1pl. pres. act.** *zi-in-na-ú-e-ni* KBo 17.25 II 2 OS; *zi-in-nu-um-me-e-ni* KUB 13.35 + IV 3 NH

**2pl. pres. act.** *ze-en-na-at-te-ni* KUB 43.22 IV 15 NS

**3pl. pres. act.** *zi-in-na-an-zi* KBo 20.37 I 4 OS, KBo 24.45 obv. 31’ MS?, KUB 1.11 rev. III 58 MH/MS; *ze-en-na-an-zi* KBo 10.92 I 16 NS, KUB 17.18 II 10’, III 14, 18 MH/NS

**1sg. pret. act.** *zi-in-ni-nu-un* Oettinger 1979: 311, NH; *ze-en-na-aḥ-ḥu-un* KUB 1.1 obv. I 60, IV 47 NH

**3sg. pret. act.** *zi-in-ni-it* KBo 3.21 II 2 OH or MH/MS, KBo 5.6 I 6 Supp. I, KUB 36.83 I 8 NS; *ze-en-ni-it* KUB 40.102 VI 6 NS

**3pl. pret. act.** *zi-in-ni-ir* KUB 29.54 IV 12 MH/MS

**3sg. imp. act.** *ze-en-ni-eš-du* KUB 58.78 obv.<sup>?</sup> 10 NS; *zi-in-na-a-ú* KBo 4.4 II 13 Murš. II

**2pl. imper. act.** *zi-in-na-at-tén* KUB 31.64 III 20 OH/NS, HKM 72 obv. 15 MH/MS

**3sg. pres. mid.** *zi-in-na-at-ta-ri* KBo 13.18 r. Kol. 6 NS, KUB 22.70 rev. 22, 65 NH; *ze-en-na-at-ta-ri* RS 17.109 12 NH

**3pl. pres. mid.** *zi-in-na-an-ta-ri* IBoT 1.36 III 51 MH/MS

**3sg. pret. med.** *zi-in-na-at-ta-at* HKM 80 obv. 8 MH/MS

**part. nom. sg. c.** *zi-in-na-an-t-* KUB 27.59 IV 21 NS, KUB 32.123+ III 18 NS

**part. nom.-acc. sg. n.** *zi-in-na-an* KBo 19.128 VI 34 NH

**verbal noun n.sg.** *zi-in-nu-[mar]* KBo 1.31 rev. 10' NS

**?inf.I** *zi-in-ni-u-an-[zi]* KUB 34.9 4 OH/NS

**impf. 2pl. pres. act.** *zi-in-ni-iš-ke-ši* KUB 24.7 II 15 NH, KUB 33.120 I 36 MH/NS

The verb *zinni-* can be used both with an object (usually an infinitive) and without it, cf. KUB 15.31 I 27 *nu mahhan zinnai* “(She pours the fine oil and speaks the words of the d.-bread.) When she finishes, ...”.

The etymology of *zinni-* is disputed. See HEG W-Z: 735ff. for the full list of suggested etymologies. I will discuss only a few of them.

Quite often, *zinni-* has been compared to Lat. *sinō* ‘to leave alone, let, allow’ (Oettinger 1979: 152, Melchert 1994: 80, Kimball 1999: 453). Reflex of initial \*s may in fact sometimes be spelled *z-* in Hittite; examples are collected in Kimball 1999: 452f. There are, however, two objections to this etymology. First, all reliable instances in which a sign of the Z-series stands for the etymological \*s seem to occur in initial consonant clusters (*zakkar* ‘excrement’, cf. Gr. σκῶρ ‘id.’, *zama(n)kur* ‘beard’, cf. Skt. *śmāśru-* ‘id.’), and they do not provide support for the assumption that signs of the Z-series could represent \*s before vowels, as would be the case for *zinni-*<sup>113</sup>. Second, Lat. *sinō*, as is clear from its supinum *situs* ‘placed’, belongs to the root \**tkei-* ‘to dwell’ (LIV: 643f., on development of the initial consonantal cluster in Latin see Leumann, Hofmann, Szantyr 1977: 177)<sup>114</sup>.

<sup>113</sup> For this reason Bader’s comparison (1981) of *zinni-* to Lat. *senis* ‘old’ is improbable as well.

<sup>114</sup> Note, however, that Sihler (1995: 534) acknowledges that there could be two PIE roots merged in Lat. *sinere*.

Barton (1993: 552ff.) proposed to connect *zinni-* with Lat. *fīniō* ‘to mark out the boundaries, limit’, assuming *\*Dw-* > *z-* in Hittite. Semantically it is attractive, but this development is hardly possible as we do not see it in, e.g., *tuekka-*, <sup>LÚ</sup>*duyanalli-* (cf. Kimball 1999: 291, Melchert 1994: 118). Besides, the etymology of Lat. *fīniō* and *fīnis* ‘boundary, limit’ is disputed. According to Walde, Hofmann (1938 I: 502), *fīnis* was derived from *fīgō* ‘to drive in, insert, fix’, i.e. *fīnis* < *\*fīg-s-ni-* ‘driven in’. Alternatively, *fīnis* has been connected with Lat. *perfīnēs* ‘you must break’ and PIE *\*b<sup>h</sup>eiH-* ‘to hit’ (see de Vaan 2008: 222). Neither of these etymologies makes the comparison of Lat. *fīniō* with Hitt. *zinni-* possible.

In my opinion, *zinni-* is derived from *zē-<sup>ari</sup>* ‘to be ready’ (Oettinger 1979: 151f., LIV: 617f., Kloekhorst 2008: 1037). Semantically, this connection is not as apparent as in case of *sū-* ‘full’ : *sunna-* ‘to fill’, but is quite plausible, even though *zē-<sup>ari</sup>* is used exclusively in relation to food (e.g., KBo 5.1 obv. I 28f. *mahhan=ma* <sup>UZU</sup>*ī zēari* ‘but when the fat is ready’).

According to LIV, p. 617f., *zē-<sup>ari</sup>* and *zinni-* go back to PIE *\*teih<sub>1</sub>-* and are related to OIr. *tinaid* ‘to melt, disappear’, OE *ðīnan* ‘to wet’ (with full grade of the root due to paradigm levelling). The laryngeal in the auslaut is supported by ON *þiðr* < *\*tiH-to-*. Other cognates are presented in Pokorny 1959: 1053f. OIr. *tinaid* ‘disappears’ (glossed as *euanescit*) is poorly attested, but is considered to contain a nasal infix (Thurneysen 1946: 474) and could be a parallel formation to *zinni-*. However, in my opinion, the Old Irish and Old English verbs are rather cognate to OCS *tajo* ‘to melt’, Arm. *t’anam* ‘to make wet, become wet’<sup>115</sup>, going back to an extended PIE stem *\*teh<sub>2</sub>i-* of the root *\*teh<sub>2</sub>-* ‘to melt’, for which see Klingenschmitt 1982: 113f., LIV: 616<sup>116</sup>.

Nevertheless, if *zinni-* is connected with *zē-<sup>ari</sup>* ‘to be ready’, a further comparison with Lat. *tītiō* ‘fire-brand’ (cf. HEG W-Z: 687f) can be made. If so, *zinni-* was originally used in reference to cooking, but subsequently broadened its meaning from ‘to make ready (about food)’ to ‘to make ready’ and further to ‘to finish’. The stem *zinni-* is then best explained as containing an infix and going back to *\*ti-né-h<sub>1</sub>-ti* /

<sup>115</sup> Note that Arm. *t’anam* may contain a suffix *\*-naH-* rather than an infix, see Kocharov 2011: 272f.

<sup>116</sup> The structure of this root is similar to PIE *\*kreh<sub>1</sub>(i)-* ‘to sift’ (LIV: 366f.), *\*seh<sub>2</sub>(i)-* ‘to be satisfied’ (LIV: 520f.) etc.

*ti-n-h<sub>1</sub>-énti*, with the subsequent generalization of the weak stem. Theoretically, *-nni-* could be a suffix as well, but both the origin of this suffix and the gemination of the nasal (cf. 3.6.4 and 5.9) are difficult to explain in this scenario. As for the meaning of *zinni-*, it seems to be a causative to *zē<sup>ari</sup>* ‘to be ready’. Since the main function of the infix was to form causatives (see 7.2.3), interpretation of *zinni-* as an infixed stem accounts also for its causative semantics.

Instead of the expected *\*zinnē-* (< *\*ti-né-h<sub>1</sub>*) in the singular, *zinni-* consistently shows *-i-* (e.g., *zi-in-ni-zi* KBo 20.10 + I 5 OS). The *i*-vocalism might be graphic, as there was a tendency to replace the sign NE with NI when not in the root syllable, see 3.2.1.3. If *-i-* was nevertheless phonetically real, one has to assume retraction of accent to the root, see further 3.2.1.4. The origin of the vocalism *-a-* in the 1sg. is unclear to me; a similar distribution is found in other verbs of this type, cf. further 3.2.1.1, 3.2.1.5.

Note that *zē<sup>ari</sup>* has another derivative with a causative meaning: *zanu-* ‘to cook’. Since a simultaneous derivation of two different causatives is unlikely, I assume that *zanu-* is a more recent formation.

## Conclusions

### 3.2 The verbs discussed in this chapter fall into several verbal classes in Hittite.

**3.2.1.1** The verbs *harni-*, *hulle-*, *duwarni-*, *zinni-* and perhaps *huwarni-* belong to Oettinger’s I 2a class/Kloekhorst’s I a I class. In 1sg., there is often an *-a-*, as in *zinnami* or *harnami*, while in 3sg., it is *-i-*. In 1pl., there is often an *-u-* used as a connecting vowel, e.g., *hu-ul-lu-mi-en*, *zi-in-nu-um-me-ni*, which means that the plural stem is *hull-* and *zinn-*, s. Kloekhorst 2008: 360, 1037. Summing up, the ablaut is as follows: *-a-* in the 1sg., *-e-* or *-i-* (after /n/) in the 2 and 3sg. and Ø in the plural. The zero-grade in plural is expected for an infixed stem (< *\*Cu/i(R)nH-énti*), whereas the variation *a/e* or *a/i* in the singular is not. The unexpected *-a-* in 1sg. act. is attested in

other verbal types as well, e.g., *u-wa-mi* (OS) (Kloekhorst, p.c.), but its origin is not clear.

Note that after Old Hittite, these verbs are gradually shifting to Oettinger's II 2 a class (*tarna-*) and I 2 c class (*wemiye-*), cf. Oettinger 1979: 313. In fact, in some New Hittite texts we find *zinni-* exclusively with *hi*-endings, and *harna/iya-* predominantly has forms of the *wemiye*-type.

**3.2.1.2** A root-final  $*h_1$  has been assumed for *hulle/hull-* and *zinni/zinn-* on the basis of their etymology. The expected infixed stems of these roots should have looked like  $*h_2ul-né-h_1-ti/*h_2ul-n-h_1-énti$  and  $*ti-né-h_1-ti/*ti-n-h_1-énti$ , respectively. The 3pl. forms *hullanzi* and *zinnanzi* are very likely to descend directly from  $*h_2ul-n-h_1-énti$  and  $*ti-n-h_1-énti$ . The singular forms are problematic, however. The  $*é' < *-éh_1-$  in a non-initial syllable should have remained  $-\bar{e}-$  in Hittite, according to Melchert 1994: 142; Kimball 1999: 146f.). Kloekhorst (2014: 197ff, 212) argues that  $*é'$  in an open non-initial syllable merged with  $*é$ ; the resulting half-long vowel  $/é\cdot/$  still was spelled plene in about half of its attestations. Whereas, in Middle Hittite,  $/é\cdot/$  was shortened to  $/é/$  and was virtually always spelled without plene.

If the strong stems *hulle-* and *zinni-* actually reflected  $*h_2ul-né-h_1$  and  $*ti-né-h_1-$ , one would expect to have some plene spellings (e.g.,  $**zi-in-ne-e-ez-zi$ ). There are only a few OS forms of *hulle-* and *zinni-*<sup>117</sup>, and plene spellings are absent. In later texts and copies, we only have one ambiguous plene spelling *hu-ul-le-e-ez-zi* (KUB 36.98a obv. 5), which can be read as *hulliezzi* as well. In my opinion, this is not a coincidence; the lack of plene spellings shows that the singular of these verbs does not go back directly to the full grade of the infix  $*-né-h_1-$  (as well as  $*-néH-$  with any other laryngeal).

**3.2.1.3** It is important that *zinni-*, *duwarni-* and *harni-* always have an  $-i-$  in the auslaut (e.g., *zi-in-ni-ši* KUB 29.1 I 5 OH/NS, *zi-in-ni-iz-zi* KBo 20.10 I 5 OS? or

<sup>117</sup> Singular forms in OS: *hu-ul-li-iz-zi* KUB 29.32 4, 5; *hu-ul-la-nu-un* KBo 3.22 obv. 11, 15; *hu-ul-li-it* KUB 36.99 rev. 4; *zi-in-ni-zi* KBo 20.10 + I 5 OS; KUB 60.41 III 20 ([*zi-*]in-ni-iz[*-zi*]).



MS?)<sup>118</sup>, whereas stative verbs or *-we/a-* verbs have *-e-*, cf. *ar-ša-ne-e-ši* KBo 25.122 2, 4, 6, 8, 10, 12, 14 (OS), *šu-u-ul-le-e-et* KBo 32.14 II 4 (MS).

If the singular of *zinni-* does not reflect *\*tinéh<sub>1</sub>ti*, what would be the origin of *-i-* in *zinnizzi*? Melchert (1984: 114f.) attributed the vocalism *-i-* in these forms to analogy to the stems with suffix *-anna/i-*, but none of the forms of *zinni-* actually look like those of *anna/i-*-type imperfectives. Kloekhorst assumed there might have been a special development here (2008: 1037), though he does not specify which one.

Oettinger 1979: 135<sup>3</sup> suggested that the sign NI was regularly used instead of NE in positions other than the beginning of a word. An extensive study of MS and OS forms by Sideltsev (2002: 32ff.) supports this<sup>119</sup>. If so, the spelling *zi-in-ni-* actually stands for */tsinne-/*. This would also explain the spelling of the 3pl. form *zi-in-ni-ir* for */tsinn-er/*, where the ending */er/* was added to the weak stem */tsinn-/*. An additional argument for a possibility of reading NI as *-né-* is given by Kloekhorst (2014b: 62<sup>11</sup>), who argues that *ma-a-ni-za* in KBo 6.2 III 7 (OS) stands for *mān=e=za* “they stand for themselves”, with the nom.pl.c. *-e* of the enclitic third-person pronoun *-a-*.

Nevertheless, the replacement of NI by NE was rather a tendency than a rule without exceptions, and there still are rare forms with NE, cf. nom. pl. com. *iš-ḫi-ma-a-NE-eš* KBo 17.15 obv. 10 (OS?) as compared with a more typical *iš-ta-na-NI-iš* KUB 17.10 IV 22 (OH/MS), as well as *uš-NE-eš-kat-ta* in KUB 29.29 12 (OS) and *[(an-na-)]NE-ku-uš* KUB 29.36+ IV 5<sup>120</sup>. Therefore, if *-ni-* is only graphic in *zinni-* and *duwarni-*, one would expect at least a few occurrences of NE signs. Since such spellings are missing, it cannot be excluded that *-i-* is phonetic rather than graphic.

**3.2.1.4** Since the singular forms of *hulle-*, *zinni-* etc. are unlikely to go back to the strong stem *\*CR(R)-né-H-*, as was argued above in 2.3.1.2, where do they come from? It is probable that a 3pl. stem *\*-nH-enti* was generalized in these verbs, as is suggested

<sup>118</sup> Due to ambiguous reading of signs LI and IT that may read also as */le/* and */et/d/*, the stem vowel of the relevant forms of *hulle-* may have been either */i/* or */e/*. The forms of the type *ḫar-ni-e-ez-zi* VBoT 58 IV 24 reflect a secondary stem in *-iya/e-*.

<sup>119</sup> Sideltsev (op. cit.) notes only one exception, *hannessar*, where NE is used more often than NI, as, e.g., in *ḫa-an-ne-eš-na-aš* KBo 6.2 II 14 (OS).

<sup>120</sup> *an-na-NI-ku-uš* in NS copies KBo 6.26 III 44 and KUB 29.34 IV 22, see Hoffner 1997: 152f.

by the geminate *-nn-* in *zinni-*. The distribution *-a-* in the 1sg. : *-e/i-* in the 2sg. and 3sg. resembles the distribution of *-a-* and *-e-* in a very productive ‘thematic’ suffix *-ye/a-* (see Kloekhorst 2008: 129ff.), so perhaps new ‘thematic’ forms were made to the 3pl. *zinnanzi*, *hullanzi* etc.

Alternatively, Kimball (1999: 415) suggests that the accent shifted to the root in these forms<sup>121</sup>, and unaccented *\*-eh<sub>1</sub>-* shortened to *\*ě*. This is also possible, even though the conditioning of the accent shift and *-a-* in 1sg. remain unexplained.

**3.2.1.5** There is a possibility that *-i-* in *zinni-* and other verbs of this type is phonetic rather than graphic, see 3.2.1.3. If Kimball is correct that the accent in the singular forms was retracted to the first syllable<sup>122</sup>, the new post-tonic short /e/ was raised to /i/ in closed syllables and lowered to *-a-* in open syllables (Melchert 1994: 139, Kloekhorst 2008: 97). The *i*-vocalism in some forms of *zinni-*, like 3 Pret. *zinnit*, is then regular. For the present forms we would expect a regular outcome 3Sg. *\*\*zinnazi* < *\*t̃<sup>s</sup>inet̃<sup>s</sup>i*. In fact, there is only a rare form *zinnami* (though for *hulle-* we have *hullasi* and *hullazzi* in a 15<sup>th</sup> century text as well, see the respective entry). Alternatively, it could be assumed that post-tonic *-e-* changed to *-i-* after *-n-* and before a dental even in closed syllables.

**3.2.2** Quite a few verbs display *hi*-conjugation endings from the earliest texts on (*tarna-* ‘to let’, *sunna-* ‘to fill’, *sanna-* ‘to conceal’, perhaps *walla-* ‘to praise’), though some have late *mi*-conjugation forms as well (e.g., *tar-na-iz-zi* KUB 28.4 I 25b).

Among the verbs of this type, *tarna-* is certainly of PIE age, while *sunna-* is rather proto-Anatolian and *sanna-* is likely to be a Hittite innovation, see the respective entries. The etymology of *walla-* is not certain, but it may also be old. The roots of *tarna-* and *sunna-* had a laryngeal in the auslaut, and in *sunna-*, it should have been either *\*h<sub>1</sub>* or *\*h<sub>3</sub>*. In my opinion, the latter option is preferable as it helps to explain the

<sup>121</sup> She mentions analogy as a possible cause for the shift, but does not specify what the source of the analogy may have been.

<sup>122</sup> Cf. the assumed retraction of accent in Pal. *sūnat* (Melchert 1994: 202). It is hardly possible to explain the *-i-* in the stem auslaut and lack of plene if the accent was on the second syllable. The conditions of the accent shift are, however, not clear.

transition of these verbs to the *hi*-conjugation – in the singular *\*trKnéh<sub>3</sub>-ti* and *\*sunnéh<sub>3</sub>-ti* resulted in *\*trKnóh<sub>3</sub>-ti* and *\*sunnóh<sub>3</sub>-ti*, and the vocalism *\*o*, being typical for the *hi*-conjugation, triggered the change<sup>123</sup>.

**3.2.3** The verb *munnai-* belongs to the *hatrai*-class, which was very productive; most verbs of this class are denominal or deajectival, cf. Hoffner, Melchert 2008: 206f., Kloekhorst 2008: 132. As I argue in the respective entry, the likeliest source of *munnāi-* is hypothetical *\*mu-ne-h<sub>2</sub>-ye/o-* > Hitt. *\*munāie/a-*, which shifted to the *hatrāi*-class in the prehistory of Hittite.

Finally, it is impossible to determine the conjugation type for *halla-* in *hallanna/i-*, and *harna-* ‘to sprinkle’, as there are no relevant forms attested.

**3.3** Oettinger argued that conjugation types of the Hittite infixed verbs depended on the laryngeals in auslaut (e.g., 1979: 314). The verbs with *\*-h<sub>1</sub>-* got into the ‘thematic’ (in his terminology) class, the verbs with *\*-h<sub>2</sub>-* changed to the *hi*-conjugation, while verbs with *\*-h<sub>3</sub>-* followed the *hatrai*-class. This suggestion seems to be correct in principle, though it were the verbs with *\*-h<sub>3</sub>-* that shifted to the *hi*-conjugation, whereas the verb with *\*-h<sub>2</sub>-* entered the *hatrāi*-class.

**3.4** Quite a few verbs discussed in this chapter do not have a good etymology, and there might be alternatives to the reconstruction of the infix. Let us take a closer look at such alternatives.

**3.4.1** Some of the verbs can be plausibly analyzed as denominative verbs from *\*no*-stem nouns, as it is suggested for *ishuna(hh)-* and *kīnai-*. The verbs derived from such nouns should theoretically have joined *hatrāi*-type (I 2 d according to Oettinger). *Kīnai-* does belong to this class; the attested forms of *iskuna-* do not permit to establish

<sup>123</sup> Eichner (1975: 97) also considered *tarna-* to belong originally to the *mi*-conjugation, though his account of the conditions for the shift to the *hi*-conjugation is different from mine, see further the entry for *tarna-* in 3.1.

their conjugation type, but it could belong to the *hatrāi*-type as well. In my opinion, these verbs are denominatives.

**3.4.2** Another possibility is a Hittite verbal suffix *-na-* that presumably continues PIE *\*-neH<sub>2/3</sub>-*. Puhvel (2002) lists 3 verbs (*iskuna-*, *sanna-*, *sunna-*) that contain this suffix without giving further details; in HED 6: 192 he also adds *munnaī-* to the list. This type, however, was quite rare in PIE, and LIV: 18 reconstructs only two stems with the suffix *\*-neH-* for PIE.

Kronasser provides quite an extensive list of Hittite verbs with the suffix *-na-* (1966: 561ff.). Most of them are now believed to contain either a nasal infix (*harna-*, *harni-*, *munnai-*, *sunna-*, *tarna-*, *duwarni-*) or an imperfective suffix *-anna/i-* (*hallanna/i-*, *hattanna/i-*, *sallanna/i-*). In other cases, either a nominal suffix *\*-no-* is assumed or *-n-* is thought to belong to the stem (*harwanai-*, *huwappana-*, *impanai-*, *kīnai-*, *lappinai-*, *sarganiya-*, *ušnie-*). Among the remaining verbs, only *hahharsna-*, *hahhlana-* and *dankuna-* seem to have a causative/factitive function. The forms *dankuna-* and *hahhlana-* are both attested only once, in the same text: KUB 12.58 II 5 *kuyes=an dankunesker hahlan[esk]er* (6) *paprah<h>er* “those who have made him black, made him yellow, made him polluted” (HED 3: 5). *Dankunesk-* also has a parallel variant *dankunu-* with the same meaning (HEG T: 110). So *dankunesker* and *hahlanesker* are likely to be nonce formations; one might also accept Oettinger’s explanation (1979: 247) that *dankunu-* and *dankuna-* are analogical to *impanai-* (Med. ‘to be depressed’, < *\*(a)impan-ai-*) and *aimpanu-* ‘to burden, weight down’. The only other example for a ‘causative’ suffix *-na-* is *hahharsna-* ‘to ridicule’ from *hahhars-* ‘to laugh’, but assuming the causative meaning of *hahharsna-* is not necessary<sup>124</sup>. Summing up, there are no plausible independent instances for a Hittite causative suffix *-na-*.

<sup>124</sup> ‘To ridicule’ is the translation in HED 3: 7, which, however, is not beyond doubt. There are only 3 forms attested, *ḫa-aḫ-ḫar-ša-na-an-za* (x2) and *ḫa-aḫ-ḫar-aš-na-ta*. The participle is found twice in lexical lists. In KUB 3.99 II 8, it is compared to damaged Sum. *x.hul*<sup>124</sup> and Akk. *su[-]*, while in KBo 26.20 II 33 it is compared to Sum. *ka x ud* and Akk. *ʾū-uh-ḫu*, which means ‘laugh’. Güterbock translated the Hittite forms as ‘laughing?’ and ‘laughing at?’ (1985: 108, 121). Besides there is *ḫa-aḫ-ḫar-aš-na-ta* in Bo 4952 I 13, which is interpreted by Puhvel as nom.sg. from *hahharsanatar* ‘mockery’ (at a wizard, ANA<sup>LÜ</sup> AZU).

**3.4.3** Another reason why *munṇāi-*, *sunna-* and *zinni-* are unlikely to contain the alleged suffix *-na-* is the geminated *-nn-*. Puhvel (HED 6: 1092) suggests that *munṇāi-* goes back to *\*mu-nā-ye-*, but he does not specify the conditions for the gemination of /n/. There are several proposals in favor of gemination of resonants, which usually involve accent, but none of them is convincing, see 5.9.

**3.4.4** Nevertheless, even though there is no evidence in support of the alleged suffix *\*-na-*, the existence of the suffix *\*-ni/n-* in *harni-*, *huwarni-* and *duwarni-* cannot be completely excluded, as they either have no secure etymology or are unlikely to have a laryngeal in the auslaut. This suffix would not necessarily be of PIE origin and could perhaps result from reinterpretation of *-(n)ni-* in *zinni-* as a suffix. For this process cf. Szemerényi 1996: 271.

**3.5** All in all, of the verbs discussed in this section only *tarna-* ‘to let, let go’ is certain to go back to a PIE infixed stem. Several other verbs (*halla-* in *hallanna/i-* ‘to trample’, *hulle-* ‘to smash’, *munnai-* ‘to conceal’, *sunna-* ‘to fill’, *walla-* ‘to praise’, *zinne-* ‘to finish’) are infixed or are likely to be infixed, but they may also well be post-PIE formations, since they do not have either any infixed counterparts in the other Indo-European languages or a reliable etymology.

Note that plene spellings in the singular of *munnai-*, *sunna-* and *tarna-* are conditioned by their conjugational types, and there is no unambiguous plene spelling in the singular for the other infixed verbs (see especially 3.2.1.2); this, and the geminated *-nn-* in *munnai-*, *sunna-* and *zinne-*, suggests that these verbs (and, by extension, other verbs of these types) generalized the weak stem *\*-n-(H)-* of the infix. In other words, in Hittite, there is no indication for the ablaut in the infixed stems made to roots of the type *\*C(R)eRH-*.

**4.1** In this chapter, I have collected all Hittite *nu*-verbs known to me. The Hittite verbal suffix *-nu*-<sup>125</sup> goes back to PIE suffix *\*-néu-/nu-*. LIV reconstructs such a stem as certain for 35 roots in PIE and as possible for 17 more, so these formations must have been fairly numerous already in the proto-language. The suffix ablaut is preserved in Indo-Iranian (e.g., ved. 3sg. pres. act. *kṛṇóti* < *\*k<sup>w</sup>r-néu-ti* : 3pl. pres. act. *kṛṇvanti* < *\*\*k<sup>w</sup>r-nu-énti* from *kṛ-* ‘to make’); in Greek the ablaut is *-vō-/vu-*, likely reshaped in analogy *-vā-/va-* of infixed verbs, cf. Schwyzler 1939: 695.

The relationship between the PIE infix and the suffix *\*-néu-/nu-* is not entirely clear, even though many scholars believe that they are connected in one way or another. The suffix *\*-néu-/nu-* is often considered to have resulted from reanalysis of infixed *\*-né-u-/n-u-* stems, cf. e.g., Szemerényi 1996: 271, Beekes 2011: 258. On the contrary, Steer (2013-14) has recently suggested that it was the suffix *\*-neu/nu-* that was reanalyzed as *\*-n(e)-u-* next to a cognate *u*-adjective, which gave rise to infixation in PIE. In a yet different way, Milizia (2004) argued that the infix *\*-né-/n-* was originally a suffix that stood in a complementary distribution with the suffix *\*-néu-/nu-*. The suffix *\*-néu-/nu-*, in turn, was formed by adding the athematic present suffix *\*-u-* to *\*-né-/n-*. While there is no *communis opinio* regarding the origin of *\*-néu-/nu-* and its original relation to the infix, these affixes are generally believed to be related.

In Hittite, the suffix *-nu-* and the infix *-nin-* are clearly separate morphemes. Yet, Koch (1980) suggested that *tepnu-* ‘to diminish, humiliate’ was derived from *tēpu-* ‘small’ with an insertion of *-n-* into the stem. This is unlikely, see the entry for *tepnu-* and 4.9 below; nevertheless, the replacement of *harnink-* ‘to destroy’ by *harganu-* ‘id.’ in the history of Hittite (see Ünal 1984: 76ff.) shows that infixed stems and *nu*-stems enjoyed a high degree of functional similarity in Hittite.

<sup>125</sup> Note that there is a partially homonymous nominal suffix *-nau/nu-*, e.g., in *arsanu-* n. ‘flow’ or <sup>(TÚG)</sup>*seknu-* c./n. ‘cloak’, on which see Weitenberg 1984: 221ff.

Since the suffix *-nu-* became very productive in the history of Hittite, one of the aims of this chapter is to establish whether there are direct cognates of Hittite *nu-*stems in other Indo-European languages. In other words, how many Hittite *nu-*verbs are inherited from PIE? I will also look into the formal features of this verbal type and specifically into the semantic relations between the base verb and the *nu-*verb in order to establish the function/grammatical meaning of this suffix in Hittite.

**aimpanu-** ‘to beset’

**3sg. pret.act.** *a-im-pa-nu-zi* KUB 5.1 IV 78 Hatt. III

The verb *aimpanu-* is derived from a denominative verb *impai-<sup>zi</sup>* ‘be burdened, depressed’ or rather directly from *(a)impa-* ‘weight, burden’. It is related to Gr. ἴπος ‘weight, press’; these words could have been borrowed to Greek and Hittite from an unknown source (HED 1/2: 15).

**annanu-** ‘to train’

**3pl. pres.act.** *an-na-nu-wa-an-zi* KUB 30.42 I 2 Hatt. III/ Tudh. IV

**3sg. pret.act.** *an-na-nu-ut* KBo 3.34 II 29, 30 OH/NS, KUB 23.108 rev. 8 NS

**part. n. sg. c.** *an-na-nu-wa-a[n-za]* KBo 1.30 obv. 20 NH

**part. acc. sg. c.** *an-na-nu-wa-an-ta-an* KBo 6.26 II 27 OH/NS

**verb.noun gen.sg.** *an-na-nu-ma-aš* KUB 13.16 3 OH/NS, KUB 31.53+ obv. 9 NH; *an-na-nu-um-ma-aš* KUB 26.64 I 4 NH

**inf.I** *an-na-nu-ma-an-zi* KUB 13.16 1 OH/NS, KUB 43.29 II 7 OH/MS

**impf. 3sg. pret.act.** *an-na-nu-uš-ke-et* KUB 40.80 obv. 4 NS

The meaning of this verb is ‘to train’ in most instances; however, in the wordlist KBo 1.30 obv. 20 *annanuwa[nza]* corresponds to Akk. *gullubu* ‘shaven’, cf. Otten 1976: 103, Maier 2013: 18.

One would expect *annanu-* to be derived from a verb *\*ann(a)-*, but no such verb is attested. *Annanu-* is often connected with *aniye/a-<sup>zi</sup>* ‘to work’, cf., e.g., HED 1/2: 61.

While *annanu-* is always written with a double *-n-* in the root, *aniye-* and its imperfective *anniske-* show some variation in spelling, mostly in New Hittite texts, cf. *a-ni-eš-kán-[zi]* KUB 9.15 III 22, *a-ni-eš-ke-er* KUB 1.6 II 10 besides dupl. *an-ni-eš-ke-er* KBo 3.6 II 1 but already in HKM 54: *an-ni-ya-an* in line 13 and *an-ni-ya* in line 26 vs. *a-ni-i-er* in line 17. Nevertheless, in Old Hittite texts *aniye-* is always spelled with a single *-n-*, while *anniske-* is spelled with double *-nn-*.

Within Anatolian, we have Pal. *anie/a-* ‘to do, work’ and CLuw. *annī-* ‘to carry out, treat’. These verbs are usually compared to Skt. *ānas-* ‘cart’, Lat. *onus* ‘load’, PIE *h<sub>3</sub>en(H)-*<sup>126</sup>, see Kloekhorst 2008: 180, de Vaan 2008: 428.

Alternatively, Yakubovich (2010b) argued that *aniye/a-*<sup>zi</sup> is in fact the verb *iyē/a-* ‘to make’ with a comitative prefix *an-* < *\*en(i)* ‘with, con-’. If this is correct, *annanu-* does not belong here. Still, the meaning of *annanu-* is interpretable as a causative from that of *aniye/a-*; there are also other reasons, albeit none of them is decisive, against derivation of *aniye/a-* from *\*an-iyē/a-*. First, the verbal prefix/preverb *an-* ‘with’ is otherwise unattested in Hittite. Second, for a prefixed verb with the root of *iyē/a-* one would expect to find an imperfective stem *\*ane/issa-* rather than attested *anniske-*. Due to a rather consistent spelling *anie/a-* with a single *-n-*, it is hardly a borrowing from Luwian. For these reasons I still prefer to see this verb as a *\*-ye/o* extension stem to the root *an(n)-*, same as in *annanu-*.

The geminated *-nn-* of *annanu-* and *anniske-*<sup>127</sup> is difficult to account for. Kloekhorst (2008: 181) argues that *\*h<sub>3</sub>nske-* should have regularly yielded *\*\*aske-*<sup>128</sup> in Hittite, but due to opacity of this form it was remodeled into *anniske-* just as *kuwaske-* (<*\*g<sup>wh</sup>n-ske-*) was changed to *kuwanniske-*. The gemination precluded the dropping of /n/ before a consonantal cluster. According to Kloekhorst, a similar gemination is assumed for *annanu-* (ibid. 177), as /n/ was fortified to /N/ before the

<sup>126</sup> If Skt. *ānas-* goes back to *\*h<sub>3</sub>enos-* (see Lubotsky 1990: 132f.), the Indic data do not require the reconstruction of a laryngeal in the auslaut of the root to close the first syllable; *\*h<sub>3</sub>onos-* would have yielded *\*ānas-* according to the Brugmann’s law, while *\*h<sub>3</sub>enos-*, *\*h<sub>3</sub>enHos-* and *\*h<sub>3</sub>onHos-* would have yielded the attested *ānas-*.

<sup>127</sup> Gemination of the final consonant in the imperfective stem is found also in, e.g., *akkuske/a-* from *eku/aku-* ‘to drink’, *lakkiske/a-* from *lāk-* ‘to knock out’. It is often explained as rendering the devoicing in front of the voiceless /s/ in the suffix *-ske/a-*, but this explanation does not seem to work if we assume that the opposition in Hittite stops was fortis – lenis rather than voiceless – voiced. Nevertheless, I do not know of any plausible common solution for geminates in both *akkuske-* and *anniske-*.

<sup>128</sup> Or *\*assike-*, cf. Melchert 2013: 179.



following /n/ of the suffix. I think this explanation is rather implausible, as we would rather expect some kind of assimilation in the alleged \*/ʔNnu-/ > \*/aNnu-/. Besides, pace Kloekhorst, I believe that the consistent spelling of -a- between the root and the suffix points to a real vowel between the root and the suffix -nu-.

Melchert (1994: 85) started with the root \*enH- and argued that in \*enH-ye/o- the laryngeal was lost between the consonants, while in the imperfective stem \*enH-ye-ske/o-<sup>129</sup> there was a pretonic syncope in the second syllable and then the laryngeal was assimilated to the preceding nasal (cf. also Melchert 1984: 58 and criticism by Kloekhorst (2008: 180)). Whether due to syncope or not<sup>130</sup>, the ye/a-stems show a plain -i- before the imperfective suffix in OS texts, cf., e.g., [(e-et-r)]i-iš-ke-ez-zi KBo 6.2 IV 59 or ḥa-az-zi-iš-k[án-zi] KBo 25.35+ II 5. In later periods, the spelling -Ci-eš-ke/a- is at least as common as -Ci-iš-ke/a-. In the imperfective stem \*enH-i-ske/a- with the allomorph -i- the laryngeal was assimilated to -n-, while in the basic stem it was lost between /n/ and /j/, as suggested by Melchert. The causative *annanu-* was derived from the stem \*anna- from the root \*h<sub>3</sub>enH-<sup>131</sup>, just as *harra-* ‘to grind’ and *harranu-* from \*h<sub>2</sub>erh<sub>3</sub>- and perhaps *tarra-* ‘to be able’ and *tarranu-* ‘to make strong?’ from \*terh<sub>2</sub>-<sup>132</sup>. Already in proto-Hittite \*anna- was replaced by *aniye-* < \*h<sub>3</sub>nH-ye/o-.

The scenario presented above is based on the assumption that there was a laryngeal in the auslaut of this root. If this is not the case, one has to assume some kind of lengthening (fortition?) of /n/ in *anniske-* and *annanu-*. However, both the validity and the conditions for such a sound change are disputed, cf. further 5.9.

**arnu-** ‘to make go, stir, remove, deliver’.

**1sg. pres.act.** *ar-nu-mi* KBo 16.47 obv. 10 MH/MS, KUB 5.1 III 29 Hatt. III, KUB 14.1 rev. 22 MH/MS, KUB 23.72 + obv. 11 MH/MS, KUB 36.64 III 8 NH,

<sup>129</sup> Note that we have full grade \*-ye/o-stems in Hittite, e.g., *wemiye-* ‘to find’ and *weriye-* ‘to call’, whether or not these full grades result from morphological levelling after a full grade aorist (so Kloekhorst op. cit. 1003). For full grade \*-ye/o- presents cf. LIV: 19.

<sup>130</sup> There are some *ske*-forms with what seems to be a full grade of the suffix, cf. *ir-ḥa-ṛi-iš-ke-ez-zi* (or *ir-ḥa-ṛa-iš-ke-ez-zi*) KBo 25.84 I 5’ OS, *a-ru-wa-iš-k[e-]* KBo 17.30+ obv. 9 OS as compared with, e.g., *iš-ḥi-iš-kán-zi* KBo 25.54 III 5’ OS.

<sup>131</sup> The initial \*h<sub>3</sub> was regularly lost in the stem \*h<sub>3</sub>nH-ye/o-, and the anlaut without the laryngeal was generalized in *annanu-* as well.

<sup>132</sup> A good parallel to *aniye-* could be *tarye-* in KUB 12.63+ obv. 9 *nu-za-pa KASKAL-ši ku-u-un GU<sub>4</sub>.MAḤ-an tar-ya-an-da-an wa-a[(r-kán-ta-an) e-ep-pir]*, if *tar-ya-an-da-an* actually means ‘strong’ here as per HEG T: 147.

HKM 10 obv. 9 MH/MS, HKM 27 rev. 16 MH/MS, HKM 52 rev. 46 MH/MS, HT 10 4 NS; *a-ar-nu-mi* KUB 31.127 III 29 OH/NS; *ar-nu-um-mi* KBo 18.127 6 k.A., KUB 12.44 III 13 NS

**2sg. pres.act.** *ar-nu-ši* e.g., KBo 5.4 obv. 23 LNS, KUB 8.63 I 10 NS, KUB 21.27 IV 10 Hatt. III, HKM 24 obv. 27 MH/MS; *[ar]-nu-ut-ti* KBo 4.3 III 11 NS

**3sg. pres.act.** *ar-nu-uz-zi* e.g., KBo 6.2 I 2, 6, 38 OS, KBo 10.37 I 28 OH/NS, KBo 13.145 rev. 10 MH/NS, KUB 18.8 rev. 10 NS, KUB 24.7 I 42 NS; *ar-nu-zi* KBo 5.1 I 9 MH/NS, KBo 6.2 IV 5 OS, KBo 6.3 IV 61 OH/NS, KBo 22.42 obv. 13 MS, KBo 23.10 I 23(?) MS, KBo 23.118 II 6 NS, KUB 4.3 obv. 5b NH, KUB 5.1 I 15 Hatt. III, KUB 23.72 + obv. 24, 25 MH/MS, KUB 23.121 I 5 NS

**1pl. pres.act.** *ar-nu-me-ni* e.g., HKM 10 obv. 12 MH/MS ; *ar-nu-um-me-ni* KUB 4.1 II 5 MH/NS, KUB 19.30 IV 5 Murš. II, KUB 33.106 II 16 MH/NS

**2pl. pres.act.** *ar-nu-ut-te-ni* e.g., KUB 13.4 I 51, 56 MH/NS, KUB 26.40+ rev. 50 MH/MS, HKM 43 obv. 12 MH/MS

**3pl. pres.act.** *ar-nu-an-zi* e.g., KUB 1.13 III 27, 35 et pass. MH/NS, KUB 5.1 II 48 Hatt. III, KUB 15.31 II 11 MH/NS, KUB 23.72+ rev. 8 MH/MS, KUB 30.17 obv. 2 OH?/NS; *ar-nu-wa-an-zi* e.g., KBo 4.2 IV 41 Murš. II, KBo 5.1 II 9 NH, IBoT 3.148 III 47 MH?/NS; *a-ar-nu-wa-an-zi* KBo 6.26 IV 2 OH/NS; *ar-nu-u-wa-an-zi* e.g., KUB 39.12 7 OH ?/NS; *a-ar-nu-an-zi* KBo 13.72 obv. 8 NS

**1sg. pret.act.** *ar-nu-nu-un* e.g., KBo 5.9 II 39 Murš. II, KBo 10.2 II 52 OH/NS, KBo 19.53 III 5 NH, KUB 14.3 II 65 NH, KUB 23.13 9 NS, KUB 31.68 I 4 NS, KUB 33.120+ III 28 MH/NS, HKM 68 rev. 21 MH/MS, HT 10 6, 9 NS

**3sg. pret.act.** *ar-nu-ut* e.g., KBo 3.34 II 10 OH/NS, KUB 18.11 rev. 8 NS, KUB 23.105 3 NS, KUB 34.23 I 10 NH, KUB 40.92 rev. 15 NS; *a-ar-nu-ut* KUB 19.8 I 24 Hatt. III

**1pl. pret.act.** *ar-nu-um-me-en* KUB 20.96 V 10 OH/NS, *ar-nu-um-me-en* KBo 13.62 obv. 18 NS

**3pl. pret.act.** *ar-nu-er* e.g., KBo 5.8 III 35 NH, KBo 9.144 4 NS, KBo 16.8 III 39 NH, KUB 14.11 II 32 NH, HKM 43 obv. 7 MH/MS; *ar-nu-e-er* e.g., KUB 14.3 I 4 NH, KUB 14.8 obv. 29 NH, KUB 19.14 20 Murš. II

**2sg. imp.act.** e.g., *ar-nu-ut* KBo 3.40a 14 OH/NS, KBo 4.4 IV 22 NH, KBo 5.13 III 2 NH, KUB 14.1 rev. 26 MH/MS, KUB 31.68 I 4 NS, KBo 18.140 16 NS, HKM 31 obv. 28 MH/MS, HKM 65 I 12 MH/MS, HKM 71 rev. 31 MH/MS; *a-ar-nu-ut* KBo 5.13 III 3, 15 NH

**3sg. imp.act.** *ar-nu-ud-du* HKM 45 obv. 5, 7 MH/MS

**2pl.imp.act.** *ar-nu-ut-te-en* HKM 75 rev. 26 MH/MS; *ar-nu-ut-ten* KUB 23.72 + obv. 41 , HKM 15 13 MH/MS, HKM 25 19 MH/MS

**3pl. imp.act.** *ar-nu-an-du* KBo 5.3 II 9 Supp. I; *ar-nu-wa-an-du* KUB 33.89+ obv. 14 NS;

**part. nom. sg. c.** *a-ar-nu-wa-an-za* KUB 23.92 rev. 15 Tudh. IV

**part. acc. sg. c.** *ar-nu-an-da-an* KBo 6.2 IV 6, 7, 19, 21 OS

**part. nom.-acc. sg. neut.** *ar-nu-wa-an* KUB 21.33 IV 24 NH; *ar-nu-an* KBo 11.1 obv. 22 Muw. II

**verb.noun n.sg.** *ar-nu-mar* KBo 1.44 I 13 NS; *a-ar-nu-mar* KUB 14.17 II 7 Murš. II; *ar-nu-um-mar* KUB 43.55 II 19 pre-NH/NS

**verb.noun gen.sg.** *ar-nu-ma-aš* KUB 2.1 II 50 Tudh. IV, VSNF 12.33 IV 8 NS; *ar-nu-um-ma-aš* KBo 5.9 II 34 Murš. II, KUB 2.1 II 28 Tudh. IV, KUB 18.49 rev. 11 NS, KUB 58.15 I 3 NS

**inf.I** *ar-nu-ma-an-zi* KBo 16.97 obv. 7 MH/MS, KUB 14.17 II 15 Murš. II, HKM 43 obv. 5 MH/MS; *ar-nu-ma-zi* KBo 23.110 rev. 10 NS

**impf. 1sg. pres. act.** *[a]r-nu-uš-ke-mi* KBo 18.24 I 18 NH

**impf. 2sg. pres. act.** *ar-nu-uš-ke-ši* KUB 26.15 10 NS

**impf. 3sg. pres. act.** *ar-nu-uš-ke-ez-zi* KUB 4.1 I 32 MH/NS

**impf. 1pl. pres. act.** *ar-nu-uš-ke-ú-wa-ni* KUB 17.21 II 7 MH/MS

**impf. 3pl. pres. act.** *ar-nu-uš-ka-an-zi* KUB 32.123 IV 29 MH/MS

**impf. 1sg. pret. act.** *ar-nu-uš-ke-nu-un* KBo 16.9 1 Murš. II

**impf. 3sg. pret. act.** *[a]r-nu-uš-ke-et* KBo 13.74 11 NS

**impf. 3pl. pret. act.** *ar-nu-uš-ke-er* KBo 4.12 obv. 24, 28 Hatt. III; *ar-nu-uš-ker* KUB 19.14 17 Murš. II

**impf. 2sg. imp. act.** *ar-nu-uš-ki* KUB 40.102 VI 5 NS

**impf. 3 sg. imp. act.** *ar-nu-uš-ke-ed-du* KUB 30.40 III 8 NS

**impf. 2pl. imp. act.** *ar-nu-uš-ke-tén* FHG 5 7 OS?/MS?; *ar-nu-uš-ke-et-tén* KUB 13.4 IV 6 MH/NS

**impf. 3pl. imp. act.** *ar-nu-uš-kán-du* KUB 13.2 III 10 MH/NS

*Arnu-* is usually compared to Gr. ὀρνυμι ‘to stir up, make to arise, incite’, Lat. *orior* ‘to arise’ and Skt. *ṛṇóti* ‘to move, put in motion’, cf. HED 1/2: 167, Kloekhorst 2008: 208. This connection implies that *arnu-* < *\*h<sub>3</sub>r-nu-*. According to Rix 1970: 92f., besides PIE *\*h<sub>3</sub>er-* (Hitt. *ar-<sup>ta</sup>* ‘to stand’, Lat. *orior* ‘to arise’, s. LIV: 299f.), there was also a root *\*h<sub>1</sub>er-* (Hitt. *ār-/ar-<sup>i</sup>* ‘to arrive’, Gr. ἔρχομαι ‘to set out, come to’, Skt. *ṛchāti* ‘to go at, attain’, s. LIV: 238). While the semantic connection of *arnu-* to any of these roots is not apparent, *ār-* ‘to arrive’ seems a better comparandum (cf. Kloekhorst op. cit.). Moreover, the meaning of Gr. ὀρνυμι (<*\*h<sub>3</sub>r-nu-*) does not seem to fit well with that of *arnu-*. However, Kümmel (2000) has shown that reflexes of *\*h<sub>3</sub>er-* in Sanskrit mean ‘to put oneself to move’, which is semantically close to *arnu-*, so the Hittite verb is likely to belong to this root as well. The difference in meaning between *ar-* ‘to stand’ and *arnu-* is perhaps due to a long period of independent development of the two stems.

**ar(as)sanu-** ‘to make/let flow’

**3pl. pres. act.** *ar-aš-ša-nu-wa-an-zi* KUB 30.32 I 15 MS

**3sg. pret. act.** *ar-ša-nu-ut* KUB 4.5+ 22 NH, KUB 36.89 rev. 13, 14 NH

Typical objects of this verb are water, rivers or floods. The parent verb *ārs/ars-<sup>zi</sup>* ‘to flow’ is intransitive. It is compared to CLuw. *ārsiya-* ‘to flow’, Skt. *árṣati* ‘flows’ etc., PIE *\*h<sub>1</sub>ers-* ‘to flow’ (LIV: 241, HED 1/2: 172). The ablaut *ā/a* is unusual for a *mi*-verb and at first sight implies *\*ó/ø*. Since verbs with a secondary *\*ó/ø* shifted to the *hi*-conjugation (e.g., *sunna-* ‘to fill’ and *tarna-* ‘to let’, see the respective entries), *ārs/ars-<sup>zi</sup>* is unlikely to have originally had this type of ablaut. I prefer Kloekhorst’s

explanation (2014: 332f., 337f.) that *a-ar-aš-zi* stands for a full grade /ʔarstsi/ < \**h<sub>1</sub>érs-ti*, whereas *ar-ša-an-zi* stands for a zero grade stem /ʔarsantsi/ < \**h<sub>1</sub>rs-énti*.

**asnu-, assanu-** ‘to provide, take care of’

**1sg. pres. act.** *aš-nu-mi* KBo 3.5 I 5, 9 MH/NS; *aš-ša-nu-mi* KUB 43.75 rev. 8 OH/NS, FHG 13 II 3 NH

**2sg. pres. act.** *aš-nu-ši* KBo 11.10 III 20 MH?/NS with dupl. KBo 11.72 III 7 MS?; *aš-ša-nu-ši* KBo 8.63 I 11 NS

**3sg. pres. act.** *aš-nu-zi* KBo 3.5 I 32, IV 25 MH/NS, KBo 8.35 I 19 MH/MS, KBo 17.65 rev. 8, 11 MH/MS, KBo 21.41+ obv. 68, rev. 13 MH/MS, KUB 1.13 I 7 MH/NS, KUB 17.23 I 2 NS, KUB 29.4 I 5 MH?/NS; *a-aš-nu-zi* KUB 50.1 IV 11 MS; *aš-nu-uz-zi* KBo 17.65 rev. 13 MH/MS; *aš-ša-nu-zi* KBo 11.6 rev. 20 NS; *aš-ša-nu-uz-zi* KUB 7.13 obv. 33 NS; *a-aš-ša-nu-zi* KUB 58.83 II 11 NS; *aš-ša-nu-nu-zi* KUB 43.54 V 10 NS

**1pl. pres. act.** *aš-nu-me-ni* KUB 35.18 I 5 MS; [*aš-*] *ša-nu-um-me-ni* KUB 22.11 I 11 NS

**2pl. pres. act.** *aš-nu-ut-te-ni* KBo 20.75 rev. 11 NS, KUB 23.68 obv. 8 MH/NS; *aš-ša-nu-ut-te-ni* KBo 23.113 III 9 NS, KUB 26.29+ obv. 22 MH/NS

**3pl. pres. act.** *aš-nu-an-zi* KBo 3.5 I 18 MH/NS, KUB 1.13 IV 9 MH/NS, KUB 29.4 III 4, 49 NH, KUB 29.8 II 12, 14 MH/MS, IBoT 3.148 I 5 NS; *aš-nu-wa-an-zi* e.g., KUB 29.51 I 11 MH/MS, IBoT 3.148 III 17, 19 NS; *aš-ša-nu-an-zi* KBo 13.13 rev. 10 MS? or NS?, KUB 15.31 II 6 MH/NS, KUB 17.35 I 28 Tudh. IV, KUB 27.49 III 23 NS, IBoT 3.148 II 60 NS; *aš-ša-nu-wa-an-zi* KBo 2.8 II 15, IV, 20, 26 NH, KUB 7.24 obv. 10 Tudh. IV, KUB 7.54 II 3, III 10 NH, KUB 10.91 III 18 NH?, KUB 17.18 II 16 NS, IBoT 3.148 II 51 NS; *a-aš-ša-nu-wa-an-zi* KUB 32.103 II 15 NS; *aš-ša-nu-u-wa-an-zi* KUB 25.41 V 12 NS

**1sg. pret. act.** *aš-ša-nu-nu-un* KBo 2.5+ III 47 Murš. II, KBo 4.4 II 37 Murš. II, KUB 13.9+ I 4 MH/NS

**3sg. pret. act.** *aš-nu-ut* KBo 18.74 18 NS; *aš-ša-nu-ut* KUB 6.45 III 53 Muw. II, KUB 50.50 11 NS

**1pl. pret. act.** *aš-ša-nu-um-me-en* KBo 10.37 IV 35 OH/NS

**3pl. pret. act.** *aš-ša-nu-er* KBo 2.20 2 NS, KBo 10.20 II 23 NS; *aš-ša-nu-e-er* KBo 10.20 III 18 NS; *aš-nu-er* HKM 43 8 MH/MS

**1sg. imp. act.** *aš-nu-ul-lu* KUB 14.8 rev. 7 Murš. II ; *aš-ša-nu-ul-lu* KUB 14.11 III 20 Murš. II, LS

**2sg. imp. act.** *aš-nu-ut* KBo 11.72 II 37 MH/MS?, KUB 13.2 III 31, 32, 38 MH/NS; *aš-ša-nu-ut* KBo 13.153 3 NS

**3sg. imp. act.** *aš-ša-nu-ud-du* KUB 13.2 III 23 MH/NS

**2pl. imp. act.** *aš-nu-ut-tén* HKM 60 9 MH/MS; *aš-ša-nu-ut-te-en* KBo 20.34 rev. 9 OH/MS

**3pl. imp. act.** *aš-nu-an-du* KUB 13.2 II 23 with dupl. KUB 31.86 IV 9 both MH/NS

**3sg. pres. med.** *aš-nu-ut-ta-ri* KUB 32.130 11 MH/MS, KBo 50.268+ II 21 (dupl. to KBo 13.20 I 10) MH/MS?; *aš-ša-nu-ut-ta-ri* KBo 9.96 II 3 NH; *aš-ša-nu-ud-da-a-ri* KUB 13.20 I 10 MH/NS; *a-aš-ša-nu-ud-da-a-ri* KUB 13.20 I 22 MH/NS

**3pl. pres. med.** *aš-nu-wa-an-ta-ri* KUB 29.40 II 7 MH/MS, KUB 29.44 III 5 MH/MS

**3sg. pret. med.** *aš-nu-ut-ta-at* KUB 15.34 IV 41 MH/MS; *aš-nu-ut-ta-ti* KBo 17.95 II 11 MH/MS

**3sg. imp. med.** *aš-ša-nu-ut-ta-ru* KUB 36.30 5 NS

**part. nom. sg. c.** *aš-nu-an-za* KUB 31.127 I 19 OH/NS; *aš-ša-nu-wa-an-za* KBo 13.2 rev. 18 NH, KUB 24.3 I 45, 50 Murš. II, KUB 33.121 II 6 NH; *a-ša-nu-wa-an-za* KBo 4.6 obv. 14 Murš. II

**part. acc. sg. c.** *aš-ša-nu-wa-an-da-an* KUB 30.10 rev. 23 MH/MS, KUB 31.127+ III 34 NS

**part. nom.-acc. sg. neut.** *aš-nu-an* KBo 3.21 III 3 OH?/MS?; *aš-ša-nu-wa-an* KBo 2.13 rev. 8 NH

**part. gen. sg. (?)** *aš-ša-nu-wa-an-da-aš* KBo 13.215 rev. 3 NS

**part. nom. pl. c.** *aš-nu-wa-an-te-eš* KUB 60.157 II 16 MS; *aš-ša-nu-wa-an-te-eš* KUB 36.30 4 NS

**verbal noun nom.sg.** *aš-nu-wa-u-wa-[ar]* KUB 29.50 IV 6 MH/MS; *aš-nu-mar* KUB 50.33 I 3 NH; *aš-ša-nu-w[a-w]a-ar* KBo 2.8 I 29 NH; *aš-ša-nu-mar* KBo 26.18 IV 3 NH

**verbal noun gen. sg.** *aš-nu-wa-aš* KUB 43.55 V 1 pre-NH/NS; *aš-nu-ma-aš* KBo 2.7 obv. 8, 10, 14, 15, 28 NH, KUB 17.28 IV 42 MH/NS; *aš-nu-um-ma-aš* KBo 26.152 rev. 5 NS; *aš-ša-nu-ma-aš* KUB 17.35 II 23, III 7 Tudh. IV, KUB 38.25 I 23 NH; *aš-ša-nu-ma-a-aš* KUB 41.34 rev. 11 NS, KUB 46.22 obv. 11, 23, rev. 5, 19 NS; *aš-ša-nu-um-ma-aš* KBo 2.13 rev. 7 NH, KBo 14.142 I 58 NH, KUB 7.24 obv. 8 Tudh. IV, KUB 25.23 I 29 Tudh. IV

**inf. I** *aš-nu-wa-an-zi* KBo 21.37+ OBV. 21 MS; *aš-nu-u-wa-an-zi* KBo 23.17 NS; *aš-nu-u-wa-u-wa-an-zi* KUB 41.31 obv. 11 MS?; *aš-nu-ma-an-zi* KBo 13.237 obv. 5, 10 LNS, ABoT 1.14 V 10 NH; *aš-nu-u-ma-an-zi* KBo 23.41+ obv. 16 NS; *aš-ša-nu-um-ma-an-zi* KUB 25.23 I 45 Tudh. IV

**impf. 3sg. pres. act.** *aš-nu-uš-ke-ez-zi* KUB 31.141 obv. 2 NS

**impf. 3pl. pres. act.** *aš-nu-uš-kán-zi* KBo 8.91+ obv. 22' MS ; *aš-ša-nu-uš-kán-zi* KUB 21.11 rev. 3 Hatt. III, HT 1 IV 5 MH/NS

**impf. 2sg. imp. act.** *aš-ša-nu-uš-ki* KUB 40.47 obv. 9 NS

I follow Kloekhorst 2008: 217ff. and HW<sup>2</sup> I: 372 contra HED 1/2: 192ff. that *as(sa)nu-* is to be separated from *āssiye/a-* ‘to be dear.’ The meaning seems to be ‘to take care of (gods, horses), finish’. There are, however, several indications that at some moment *as(sa)nu-* was reanalyzed by some speakers as a derivative of *āssu-* ‘good’.

First, while there are essential differences in their spelling (in contrast with *as(sa)nu-*, *āssu-* and *āssiya-* are generally spelled with a plene on the first syllable), we have *a-aš-ša-nu-ud-da-a-ri* in KUB 13.20 I 22 and *a-aš-ša-nu-wa-an-zi* in KUB 32.103 II 15. These are NS forms, and their spelling is likely to have been influenced by that of *a-aš-šu*.

Secondly, there are still a few instances where *as(sa)nu-* may in fact be rendered as ‘to be dear, favourable’. Schwemer (2015) translated KUB 30.10 rev. 22f. *[nu]-mu LUGAL-an (23) a-aš-ki DINGIR-IA Ú-UL aš-ša-nu-wa-an-da-an an-du-uḫ-ša-an le-e*

*iš-ša-at-ti* (A Middle Hittite prayer to Sun God, CTH 373) as “My god, do not make me an unfavoured person at the king’s gate”<sup>133</sup>. CHD P: 298 gives the following translation: “O my god, don’t make me (like) a person who does not receive just treatment at the King’s Gate”. Cf. also a similar passage in KUB 31.127+ III 34. Another example is a Hittite expression in the KBo 13.2 rev. 18 *antuhsani*<sup>(sic!)</sup>=*kan kuis assanuwanza* for which unfortunately no Akkadian counterpart is preserved, but which is most likely to be understood “who is dear to the population”, cf. HED 1/2: 195. This contamination between *asnu*- and *āssiye/a*- must be rather late, since in most contexts their meaning is different.

There are no OS forms attested, but the vast majority of the MS forms points to original *asnu*-; the variant *aš-ša-nu*- is also attested already in MS but most forms come from New Hittite copies or originals. Therefore, this verb seems to be based on the stem *as*-, inviting a formal comparison with either *es/as*- ‘to be’ or *es/as*- ‘to sit’, cf. Kloekhorst 2008: 218. The semantic connection to either of these roots is not obvious, as one would expect *as(sa)nu*- to mean \*‘to cause to be’ > \*‘to create’ or \*‘to make sit’ > \*‘to set’ respectively. Nevertheless, it has often been suggested that *as(sa)nu*- is a causative to *es/as*- ‘to sit’, see, e.g., Kronasser 1966: 443 who compared Lat. *sēdō* ‘to mitigate, calm down’ and assumed the following semantic development: ‘to calm down, appease’ > ‘to finish’. Cf. also Eng. ‘to set’ and ‘to settle’ ultimately from the same root as Lat. *sēdō*.

If *as(sa)nu*- is derived from *es/as*- ‘to sit’, it can be compared to HLuw. *isanu*- ‘to settle’. Nevertheless, semantically *isanu*- is closer to Hitt. *ases*- ‘to settle, install’ and, given the productivity of *nu*-verbs in Hittite and Luwian, they are rather independent formations.

There is an alternative, which is less likely. Semantically, all attested meanings of *asnu*- can be derived from ‘good’. If one postulates a kind of a Caland system functioning already at an early stage of Hittite (see 4.9), a derivation of *asnu*- from \**asu*-, the Hittite reflex of PIE \**h<sub>1</sub>su*- ‘good’ is conceivable. (For the discussion whether Hitt. *assu*- is related, see below under *assianu*-.).

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133 In other contexts in the prayers to Sun God, Schwemer translates *as(sa)nu*- as ‘widely worshipped’.



**asesanu-** ‘to install, settle’

**1sg. pres. act.** *a-ši-ša-nu-mi* KUB 14.3 III 69 Hatt. III?

**3sg. pres. act.** *a-še-ša-nu-zi* KUB 22.59 obv. 5 NH

**3pl. pres. act.** *a-še-ša-nu-wa-an-zi* KBo 2.6 III 45 Tudh. IV; *a-še-ša-nu-an-zi*  
KUB 32.128 II 4 MH/NS; *a-ši-ša-nu-an-zi* KUB 43.49 rev. 10 NS

**1sg. pret. act.** *a-še-ša-nu-nu-un* KBo 3.6 II 12, 47, 50 Hatt. III, KUB 21.19+ III  
19 Hatt. III

**3sg. pret. act.** *a-še-ša-nu-ut* KBo 6.28 obv. 18 Hatt. III, KUB 8.53 9 NH, KUB  
21.29 I 13, 14 Hatt. III, KUB 23.97 III 3 NS; *a-ši-ša-nu-ut* KBo 13.50 12’ NS

**inf. I** *a-še-ša-nu-ma-an-zi* KBo 22.246 III 24 NS, KBo 26.156 rev. 5 NS

**impf. 1sg. pres. act.** *a-še-ša-nu-uš-ke-mi* KBo 11.1 obv. 24, 26 Muw. II

**impf. 3sg. pres. act.** *a-še-ša-nu-uš-ke-ez-zi* KUB 31.99 11 NS; *a-še-ša-nu-uš-ke-  
zi* KUB 31.99 13 NS

**impf. 3pl. pres. act.** *a-ši-ša-nu-uš-kán-zi* KBo 3.3 III 3Murš. II

According to HW<sup>2</sup> A: 395, *asesanu-* is attested since the times of Mursili II. The difference between *asesanu-* and *asās/ases-*, which both mean ‘to settle, install’, is often hard to detect, cf. [GIDIM=ya] *sarā a-še-ša-nu-wa-an-zi* KBo 2.6 III 44-5 and GIDIM= *ya sarā a-še-ša-an-zi* ibid. 61 “they will set up (an effigy of the) deceased” in Tudhaliya IV’s oracle inquiry (van den Hout 1998: 210f.).

Even though these verbs may be used interchangeably (cf. HW<sup>2</sup> A: 395 for a list of such contexts), there still seems to be a certain difference in their semantics: *asesanu-* usually means ‘to settle’, while *ases-* often means simply ‘to set up’ or ‘to install’. HW<sup>2</sup> A: 391f. notes that during the reign of Hattusili III *asās/ases-* virtually ceased to be used with the meaning ‘to settle’, which was relegated to *asesanu-*. There are also a few contexts where *asās/ases-* is semantically equivalent to *es/as-* ‘to sit, sit down’, as in KBo 15.2 IV 27 [(*namma* LUGAL-*uš kued*)*as* (*kued*)*as*] (28) [(AN)]A AŠRI<sup>HL.A</sup> *a-še-eš-kat-ta-ri nu=za apa[sa apedas ANA AŠRI<sup>HL.A</sup>?] (29) [a-š]e-eš-kat-ta-ri* “An diejenigen Plätze, an die sich der (wahre) König zu setzen pflegt, [da setz]t sich

[auch] jene[r] [hin].” (Kümmel 1967: 62f.); for other examples see HW<sup>2</sup> A: 391. Thus, the motivation for the derivation of the *asesanu-* was likely to reinforce the causative meaning of *asās/ases-*, which seems to have bleached over time.

Surprisingly, *asesanu-* is never spelled as *\*a-še-eš-nu-*, so the vowel before the suffix *-nu-* must be real. Usually *-nu-* is attached immediately to the last consonant of the root, cf., e.g., *sasnu-* ‘to make lie down, put to bed’, *warnu-* ‘to burn’, see further 4.10 below.

The verb *asās/ases-* is a reduplicated stem, and it goes back to the same root as Hitt. *ēs-<sup>ari</sup>* ‘to sit down’ and *es/as-<sup>zi</sup>* ‘to sit’ and, ultimately, as Skt. *āste* ‘to sit, live, settle’, YAv. *āh-* ‘to sit’, Gr. *ἵσται* ‘sits’, PIE *\*h<sub>1</sub>eh<sub>1</sub>s-* or *\*h<sub>1</sub>es-* (LIV: 232 with footnote 0). In the singular, the stem is *asās-*, cf. numerous OS attestations of 3sg. *a-ša-a-ši*. It is less clear what the original shape of the plural stem was. There is one OS attestation of the imperfective stem, *a-ša-aš-ke-ez-zi* KUB 17.1 I 6. However, the most frequent spelling for the weak stem is *a-še-šV-/a-še-eš-C*, although there are also variants *a-še-e-š<sup>o</sup>* and *a-ši-š<sup>o</sup>*. This set of spellings can be compared to the NS spelling of the inchoative suffix *-ēss-* in, e.g., *parkuess-* ‘to be/become pure’, 3Sg. pres. act. *pár-ku-e-eš-zi* KUB 13.3 II 16, III 30 (MH?<sup>o</sup>/NS), KBo 12.49 II 5; *pár-ku-eš-zi* KBo 3.28 II 11 (OH/NS), *pár-ku-iš-zi* Bo 4951 rev. 5 (NS), s. CHD P: 168.

Of the two attested weak stems, either *asas-* or *asēs-* must be secondary. Kloekhorst (2014b: 60<sup>9</sup>) argued that *\*asasanzi* /*\*asāser* was replaced by *\*asasanzi* /*aseser* in analogy to *asanzi/eser* ‘to be’, and subsequently the stem *ases-* spread throughout the paradigm. A less likely alternative is that *ašaškezzi* and some other weak stem forms reflect a zero grade with an anaptyctic vowel *-a-*; this stem arose in analogy to the weak stems of *hi*-verbs with *-a-/ø* ablaut, e.g., *sākk-/sakk-* ‘to know’.

The derivation of *asās/ases-* from either *ēs-<sup>ari</sup>* ‘to sit down’ or *es/as-<sup>zi</sup>* ‘to sit’ is generally accepted, but the causative meaning of *asās/ases-* is not typical for a reduplicated verb, since most reduplicated verbs in Hittite are imperfective, sound-imitative or intensive; in Hittite there are only two reduplicated verbs with a causative function, namely *asās/ases-* and *titta-* ‘to install, cause to stand’, see Dempsey 2015:

331ff. nevertheless, in the languages of the world quite a few markers have both a causative and an intensive function, see 7.3 and Oettinger 1979: 431<sup>77</sup>.

If the original ablaut was *asās/asēs-*, the origin of this verb and its relationship to the root *\*h<sub>1</sub>eh<sub>1</sub>s-* (or *\*h<sub>1</sub>es-*) is not clear. It can hardly be a Hittite formation, since, in my view, such an ablaut would be unique in an Anatolian reduplicated verb; cf. the overview of reduplication types in Dempsey 2015: 333ff. The only stem type with a full reduplication reconstructed for PIE is the intensive *\*C<sub>1</sub>éC<sub>2</sub>-C<sub>1</sub>oC<sub>2</sub>/C<sub>1</sub>C<sub>2</sub>-* (LIV: 24). However, hypothetical *\*h<sub>1</sub>é(h<sub>1</sub>)s-h<sub>1</sub>o(h<sub>1</sub>)s/h<sub>1</sub>é(h<sub>1</sub>)s-h<sub>1</sub>(h<sub>1</sub>)s-* could not yield Hitt. *asās/asēs-*. Rasmussen (2010: 224) proposed that the intensive stem *\*h<sub>1</sub>s-h<sub>1</sub>ós-/h<sub>1</sub>és-h<sub>1</sub>s-* yielded Hitt. *\*asās/ēs-* that was then analogically leveled to *asās/asēs-*, but this is formally impossible as well, since the initial *\*h<sub>1</sub>* before *\*s* does not yield Hitt. *a-*, see the entry for *āssiyanu-* below.

The ablaut *asās-/asas-*, on the other hand, is expected in a *hi*-conjugation verb. Instances of a reduplicated *hi*-verb derived from a *mi*-verb are well known, e.g., *lip<sup>-zi</sup>* and *lilipa<sup>-i</sup>* (or *lelipa<sup>-i</sup>*) ‘to lick’. However, *asās-/asas-* can hardly go back to *\*h<sub>1</sub>s-h<sub>1</sub>os/h<sub>1</sub>s-* (or *\*h<sub>1</sub>s-h<sub>1</sub>oh<sub>1</sub>s/h<sub>1</sub>h<sub>1</sub>s-*). Theoretically, *asās-* could be a renewed reduplication, similar to Gr. ἐδηδώς ‘having eaten’, presumably based on the stem *\*ḡδ < \*h<sub>1</sub>e-h<sub>1</sub>d-*, (cf. Oettinger 1979: 431f., LIV: 231<sup>12</sup>). However, most plausible is an Anatolian/proto-Hittite copy vowel reduplication of the verb *es-/as<sup>-zi</sup>* ‘to sit’, similar to *ararkiske/a-* from *ark<sup>-a</sup>* ‘to mount, copulate’.

**āssiyanu-** ‘to love, make loved’

**impf. 3sg. pres. act.** *a-aš-ši-ya-nu-uš-[ke-ši]* KBo 13.55 rev. 4 MS?

**impf. 1pl. pres. act.** *a-aš-ši-ya-nu-uš-ga-u-e-ni* KUB 31.42 II 23 MH/NS

For the contexts s. HW<sup>2</sup> A: 404.

The verb *āssiyanu-* is derived from *āss-*, *āssiya-* ‘to be loved’. Puhvel (HED 1/2: 204, 206) and Weitenberg (1984: 96) connect this verb and *āssu-* ‘good, dear’ with Goth. *ansts* ‘favour, grace’, ON *āst* ‘favor, love’. There are several problems with this etymology. First, the meaning of the noun *āssū* is ‘good, goods’ rather than ‘favour’ or

‘love’. Second, Kroonen (2013: 30) has convincingly argued that Goth. *ansts* and its Germanic cognates are related to ON *unna* ‘to grant, love’ and reflect *\*an-sti-* from the root *\*h<sub>3</sub>neh<sub>2</sub>-*, for which see LIV: 302f. Therefore, the connection of the Germanic forms to Hitt. *āss-* is implausible.

Under a different view *āss-* can be regarded as an old backformation to *āssu-*, which is often compared to Gr. *εὖς*, Skt. *su-* ‘good’, reflecting PIE *\*h<sub>1</sub>su-* or *\*h<sub>1</sub>ésu-*. Even though *āss-* is not attested in OH texts, a Hieroglyphic Luwian cognate *aza-* ‘to love’ (< *\*as-ske-*, cf. Yakubovich 2002: 199; for the reconstruction *\*-ske-* instead of *\*-ské-*, see Lubotsky 2001) shows that the verbal stem *\*as(s)-* ‘to love’<sup>3</sup> is common Anatolian. Therefore, one has to assume that the semantic development ‘good’ > ‘favourable, loved’ took place at the common Anatolian stage and that the stem *\*as(s)-* was also a common Anatolian backformation. This is possible, but there are some formal difficulties with this etymology as well.

First, there is the issue of vocalization of *\*h<sub>1</sub>-* before a consonant. The laryngeal left no trace in *siye/a-* ‘to shoot, hurl’ < *\*h<sub>1</sub>sye-*<sup>134</sup> (Kimball 1999: 390f. with literature). Another possible example is a Hieroglyphic Luwian hapax *su-ḫa-pa-na-ti* ‘very rich?’, where, according to Rieken (2003: 40ff.), *su-* reflects *\*h<sub>1</sub>su-* and *-ḫa-pa-na-ti* reflects *happanant-* ‘rich’, cognate with Hitt. *happinant-* ‘id.’; this interpretation of the Luwian form is, however, not universally accepted. Nevertheless, in my opinion, the evidence rather suggests that *\*h<sub>1</sub>-* was not vocalized before /s/ in Anatolian. If so, *āssu-* cannot reflect *\*h<sub>1</sub>su-*<sup>135</sup>. Secondly, even if we start with the stem *\*h<sub>1</sub>ésu-*, which was suggested for Greek by, e.g., Hoffmann (1976: 603), the gemination of *\*-s-* is still to be explained. The development *\*éC-* > *áCC-* (“Limited Čop’s Law”) that had been suggested in the literature is not plausible, cf. Kloekhorst 2008: 224.

Kloekhorst addresses these issues arguing that *āssu-* goes back to a reduplicated formation *\*h<sub>1</sub>óh<sub>1</sub>s-u-/h<sub>1</sub>h<sub>1</sub>séu-*, which yielded the attested form after several levellings. If so, *āssu-* is no longer a parallel formation to Gr. *εὖς* and Skt. *su-*, which has been a major advantage of this etymology. Kloekhorst addresses this problem suggesting that

<sup>134</sup> Melchert (1989: 37f.) derives *sie-* from *\*sh<sub>1</sub>-ye-*.

<sup>135</sup> Initial *a-* in, e.g., 3pl. *asanzi* may well be analogical, as, e.g., per Melchert 1994: 66f., cf. also Wodtko 2008: 242<sup>15</sup>.

Gr. ἡϋς, which has been considered to be a lengthened variant of ἐϋς, in fact reflects a full grade *\*h<sub>1</sub>eh<sub>1</sub>s-*, while ἐϋς reflects a zero grade. That would make the Greek adjective a perfect match of the Hittite one. Beekes (2010: 484), however, maintains that such an ablaut is highly improbable and sticks to the traditional analysis of ἡϋς, cf. also Wodtko 2008: 242<sup>14</sup>, Dunkel 2014 II: 305<sup>34</sup>.

Watkins (1982: 261) suggested that the adjective *āssu-* was derived from the noun *āssu-* ‘good, goods; according to Nussbaum (1998: 151f.), this derivation took place already in PIE. Melchert (1994b: 300f.) argued that the noun *āssu-* goes back to an *\*āsu* < *\*h<sub>1</sub>ósu-*, and the derived adjective *\*h<sub>1</sub>ésu-* yields *\*assu-* via Limited Cop’s Law. After levelling, both the noun and the adjective took the form *āssu-*. However, later Melchert (forthc.c: 7) states that existence of the Limited Cop’s Law is unlikely; another counterargument put forward by Kloekhorst (2008: 224) is that in other IE families only *u*-stem adjectives are attested.

Formally, *āssu-* can also be a regular *u*-stem adjective derived from *āss-* ‘to remain, stay’. This connection is not apparent semantically, but still not unthinkable. The meanings of *āss-* and *āssu-* might have drifted apart with time, as those of *hues-* ‘to live, survive’ and *huesu-* ‘raw’. The etymology of *āss-* is, however, not clear, cf. HED 1/2: 189, Kloekhorst 2008: 214f.

Summing up, *āss-* ‘to be loved’ does not have a compelling etymology. As *āss-* is related to HLuw. *aza-*, it does not have to be a backformation from *āssu-*, but it has no reliable cognates outside Anatolian. In turn, *āssu-* ‘good’ cannot be directly compared to Gr. ἐϋς and Skt. *su-*.

**esharnu-** ‘to make bloody, make red’

**1sg. pres. act.** *e-eš-ḫar-nu-mi* KUB 14.1 rev. 47 MH/MS

**3sg. pres. act.** *e-eš-ḫar-nu-zi* KUB 23.72 rev. 30 MH/MS

**3pl. pres. act.** *iš-ḫar-nu-wa-an-zi* KBo 6.34+ 47 MH/NS

**2sg. imp. act.** *e-eš-ḫar-nu-ut* KUB 14.1 rev. 18 MH/MS

**2pl. imp. act.** *e-eš-ḫar-nu-ut-tén* KUB 23.72 rev. 29 MH/MS

**part. nom. sg. c.** *iš-ḫar-nu-wa-an-za* KUB 35.145 obv. 3 NH;

**part. acc. sg. c.** *iš-ḥar-nu-wa-an-da-an* KUB 9.34 IV 2 NS, KUB 35.145 obv. 15 NH; *iš-ḥar-nu-wa-an-da<-an>* KUB 9.4 III 42 MH/NS, KUB 17.15 II 10 NS;

**part. gen. sg.** *iš-ḥar-nu-wa-an-da-aš* KBo 17.54 I 14 MS,

**part. nom. pl. c.** *iš-ḥar-nu-wa-an-te-eš* VBoT 111 III 15 NS;

**part. nom.-acc. pl. neut.** *iš-ḥar-nu-wa-an-da* KBo 12.126 I 39 MH/NS, VBoT 111 III 9 NS

**impf. 1sg. pres. act.** *iš-ḥar-nu-uš-ke-mi* KUB 30.36 III 1 MH/NS

**impf. 3sg. pres. med.** *e-eš-ḥar-nu-uš-ke-et-ta* KUB 58.82 II 8 NS

*Esharnu-* is a denominative verb, derived from *ēšhar* ‘blood’. It must reflect a common Anatolian formation, since it has a Luwian cognate, *asharnu-* (*āsharnummainzi* KUB 35.18 I 13).

*Ešhar* is related to Skt. *ásrk* and Gr. *ἔαρ* ‘blood’, PIE *\*h<sub>1</sub>ésh<sub>2</sub>r*, G.Sg. *\*h<sub>1</sub>sh<sub>2</sub>én-s*, see HED 1/2: 312f., Kloekhorst 2008: 259f.

There is also an *ahh*-factitive (KBo 15.1 I 28 *e-eš-ḥar-wa-aḥ[-ḥi-eš-ke-et-ta]* NS) derived from the adjective *isharwant-* ‘bloody red’.

**ēdriyanu-** ‘to feed’

**impf. 3sg. imper. act.?** *e-et-ri-ya-nu-uš-ke-e[d-du]* KUB 39.41 rev. OH/NS

The parent verb *ēdriya-* ‘to feed’ is transitive, as is seen from the only attested finite form in KBo 6.3 IV 60 [G]U<sub>4</sub>?<sup>HLA</sup>-ŠU *e-et-re-eš-ke-ez-zi* ‘(If anyone sets fire to a shed), he shall feed his (sc. the owner's) cattle’, s. Hoffner 1997: 97f. The context of *e-et-ri-ya-nu-uš-ke-e[d-du]* in KUB 39.41 is unfortunately broken (s. Kassian, Korolev, Sideltsev 2002: 650), so we cannot say whether there was any syntactic or semantic difference between *ēdriya-* and *ēdriyanu-*.

The verb *ēdriya-* is derived from *edri-* ‘food’, which is based on *ed/ad-* ‘to eat’ (PIE *\*h<sub>1</sub>ed-*, LIV: 230). Its Anatolian cognates are HLuw. *ad(a)ri-* and CLuw. *ad(a)ri(ya)-* ‘to feed(?)’.

**halinu-** ‘to make kneel’ or ‘to make fall down’

**3pl. pres. act.** *ḥa-li-nu-an-zi* KUB 29.45 I 14 MH/MS, KUB 29.40 III 47

MH/MS, KUB 29.50 I 13, 28 MH/MS; *ḥa-li-nu-wa-an-zi* KBo 8.49 7 MH/MS

*Halinu-* is attested only in the Hittite horse-training texts (all of them belong to CTH 286). The verb is derived from *haliya-*, which has often been interpreted as ‘to kneel, genuflect’, but rather means ‘to fall down, throw oneself to the ground’, according to Beal 1998: 85.

A widely accepted etymology connects *haliya-* with IE words for elbow: Lat. *ulna* ‘forearm’, Gr. ὠλένη ‘elbow’, Goth. *aleina* ‘cubit’, s. HED 3: 29. The reconstructed PIE root for these words is *\*Heh<sub>3</sub>l-en-*, s. de Vaan 2008: 638, Beekes 2010: 1678, Kroonen 2013: 22. For the Hittite verb that would mean that the stem was *\*Hh<sub>3</sub>l-ye/o-*. However, if *haliya-* does mean ‘to fall down’, this connection does not work; perhaps, *haliya-* could then be compared to *hallana/i-* ‘to trample down’ (see the respective entry in 3.1) and PIE *\*h<sub>3</sub>elh<sub>1</sub>-* ‘to perish’ (e.g., LIV: 298). *Haliya-* would then reflect *\*h<sub>3</sub>lh<sub>1</sub>-ye/o-* just as *aniye/a-* reflects *\*h<sub>3</sub>nH-ye/o-*; another possible parallel is *sallanna/i-* ‘to pull, drag’ and *ša-li-i-an-zi* (KUB 58.14 Rs. 1. col. 24, s. CHD Š: 85)<sup>136</sup>.

**halluwanu-** ‘to put down (deep), lower, let deteriorate’

**3sg. pret. act.** *ḥal-lu-wa-nu-ut* KUB 24.7 III 26 NS

**3pl. pret. act.** *ḥal-lu-wa-nu-e-er* KUB 24.7 I 32 NS

*Halluwanu-* is derived from *halluwa-* ‘hollow, empty’. Puhvel compares *halluwa-* to Lat. *alvus* ‘belly’, both with metathesis *\*h<sub>2</sub>elwo-* < *\*h<sub>2</sub>eulo-* (compare Gr. αὐλός ‘hollow pipe’ (HED 3: 49, de Vaan 2008: 36).

**harranu-** ‘to grind’

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<sup>136</sup> The etymology of *sallanna/i-* is not clear. It has been compared to PIE *\*sel-* ‘to jump, leap’ (cf. HEG S: 758); however, both semantically and formally PIE *\*selh<sub>1</sub>-* ‘to take’ (LIV: 529) is a better connection.

**3sg. pret. act.** *ḫar-ra-nu-ut* Bo 5249 4 NS

**impf. 3 pl. pres. act.** *ḫar-ra-nu-uš-kán-zi* KBo 6.34 II 23 MH/NS

**impf. 3 sg. imp. med.** *ḫar-ra-<nu->uš-ke-ed-du*<sup>137</sup> KBo 6.34 II 28 MH/NS

On the form *harra<nu>uskeddu* s. Oettinger 1976: 34. There seems to be no difference in meaning between *harranu-* and *harra-* ‘to grind, ruin’.

There are several possible etymologies for *harra-* and its Anatolian cognates CLuw. *harra-* and HLuw. *harra-* ‘to crush’. According to Puhvel (HED 3: 136), a comparison to Gr. ἄρῳ, Lat. *arō* ‘to plough’, PIE *\*h<sub>2</sub>erh<sub>3</sub>-* is most plausible, cf. Kloekhorst 2008: 301; for the root, see LIV: 272; however, Puhvel admits that the Hittite verb could also be a borrowing from Akk. *harāru* ‘to grind’. According to Peters (1986: 374<sup>34</sup>), the Hittite verb is related to Slav. *oriti* ‘destroy’ and the name of the Greek god of war, Ἄρης (< *\*h<sub>2</sub>reh<sub>1</sub>-*); for this etymology, cf. also Barnes 2009.

**harganu-** ‘to ruin, destroy’

**1sg. pres. act.** *ḫar-qa-nu-mi* KUB 5.1 I 92, 95; III 56 Hatt. III

**2sg. pres. act.** *ḫar-ga-nu-ši* KUB 23.95, 16 NS

**3sg. pres. act.** *ḫar-qa-nu-zi* KUB 5.1 I 74, II 46, *ḫar-ga-nu-zi* KUB 22.25 obv. 28 NS

**1pl. pres. act.** *ḫar-qa-nu-me-ni* KBo 18.27 obv. 6 NS; *ḫar-ga-nu-e-ni* KBo 18.27 rev. 29 NS

**1sg. pret. act.** *ḫar-ga-nu-nu-un* KUB 26.80 2, 3 Hatt. III; KUB 21.20 IV 6 Hatt. III; KBo 13.59 5 NS

**3sg. pret. act.** *ḫar-ga-nu-ut* KUB 13.35 II 43 5 NS, KUB 19.9 I 14 Hatt. III, KUB 21.6a 11 Hatt. III, KBo 6.28 obv. 7, 9, 10, 11, 12, 13 Hatt. III; KUB 23.1 I 38 Tudh. IV, KUB 21.8 II 5 NS, KUB 22.65 II 34 NS

**3pl. pret. act.** *ḫar-ga-nu-er* KUB 44.1 I 6, 17, 36 NS, KBo 3.6 II 4 Hatt. III, KUB 19.22 3 NS, KUB 21.31 6 NS; *ḫar-qa-nu-er* KBo 31.69 obv. 6 NS

<sup>137</sup> In fact *-ta*, s. HW<sup>2</sup> H: 272.



**3pl. imp. act.** *ḥar-kán-nu[-an-du]* KUB 26.43 rev. 39 Tudh. IV, *ḥar-ga-nu-an-du*  
KUB 26.12 II 11, 22 Tudh. IV; *ḥar-ga-nu-wa-an-du* KBo 6.28 rev. 41 Hatt. III  
**part. nom.-acc. sg. or pl. neut.** *ḥar-ga-nu-wa-an* KBo 6.28 obv. 6 Hatt. III.

This verb is a synonym of *harnink-* ‘to destroy’, both being causatives to *hark-* ‘to perish’. *Harganu-* started to replace *harnink-* since the time of Hattusili III (cf. Ünal 1984: 76ff.). This dating is not put in doubt by *harganuer* in KUB 19.22, a text belonging to the Deeds of Suppiluliuma, since the ductus of the text is Late New Script, according to the dating at the HPM website; therefore, KUB 19.22 is a very late copy, and *harganu-* here must have replaced an original *harnink-*. On the consistency of *ḥar-ga-nu-* and *ḥar-qa-nu-* and absense of *\*ḥar-ak-nu-*, cf. further 4.10.

**harganu-** ‘to make white, whiten’

**3sg. pret. act.** *ḥar-ga-nu-ut* KBo 10.37 I 46 OH/NS

**impf. 3sg. pret. act.** *ḥar-ga-nu-uš-ke-et* KUB 41.1 I 12 MH/NS

*Harganu-* is derived from *harki-* ‘white’, which is traditionally connected with PIE *\*h<sub>2</sub>erǵ-*, Toch.A *ārki*, B *arkwi* ‘white’, Skt. *árjuna-* ‘shiny white’ etc., see HED 3: 171. Cf. further 4.10.

**harnu-** ‘to spray, sprinkle’

**3sg. pres. act.** *ḥar-nu-ú-i-iz-zi* KUB 17.24 II 4 NS, *ḥar-nu-zi* KUB 47.39  
obv. 12 NS

**3pl. pres. act.** *ḥar-nu-wa-an-zi* KBo 13.179 II 10 NS, KBo 24.45 obv. 22 MS;  
*ḥar-nu-an-zi* KUB 29.7 I 36, 46, 56 MH/MS; *ḥar-nu-u-wa-an-zi* KBo 9.111 7 NS

**part. nom. sg. c.** *ḥar-nu-u-wa-an-za* KUB 30.19+ I 16 MH/NS

**part. nom.-acc. sg. neut.** *ḥar-nu-wa-an* KUB 13.4 I 20, 60 MH/NS

**part. nom.-acc. pl. neut.** *ḥar-nu-an-ta* KBo 17.65 rev. 10 MH/MS

**?verbal noun gen. sg.** *ḥu-u-ur-nu-u-wa-as* KUB 39.6 II 14 NS

For the etymology and the reading, see *harna-* ‘to spray, sprinkle’ in 3.1.

There is no discernible semantic difference between *harna-* and *harnu-*. The form *ḥar-nu-ú-i-iz-zi* in KUB 17.24 II 4 belongs to a derivative stem *harnuye/a-*.

**harpanu-** ‘to pile up’

**2sg. imp. act.** *ḥar-pa-nu-ut* HKM 65 o.Rd. 26 MS

The only secure attestation<sup>138</sup> is HKM 65 o.Rd. 26: [Z]ÍD.DA-ya *harpanut* ‘pile up flour as well’ (s. Hoffner 2009: 218). The oldest forms of the parent verb *harp-* ‘to change sides, add, join’ show middle inflection, though starting from MS active forms become common. *Harpanu-* may well have been built to the original middle forms.

The etymology of this verb depends on how seriously one takes the few spellings with a geminated *-pp-* (*ḥar-ap-p°*). Kloekhorst (2008: 312) argues that they are irrelevant; he accepts Melchert’s etymology (published in Melchert 2010) that *harp-* is related to Gr. ὀρφανός ‘orphan’ and OIr. *orb(b)* ‘heir; inheritance’ (PIE *\*h<sub>3</sub>erb<sup>h</sup>-*). Puhvel’s connection to Lat. *rapiō* ‘to snatch’ and Gr. ἐρέπτομαι ‘to snatch, grab’, PIE *\*h<sub>1</sub>rep-* is formally impossible.

**hassanu-** ‘to bring to birth’

**3pl. pret. act.** *ḥa-aš-ša-nu-e-r(a-an)* KUB 33.120 II 79 NS, KUB 33.93+ III 10 NS; *ḥa-aš-nu-*[ KBo 26.100 IV 15 MS

**impf. 3pl. pret. act.** *ḥa-aš-ša-nu-uš-[ke-er]* KUB 33.93+ III 7 NS

The verb is attested in the texts of the Kumarbi cycle. It has two arguments, just as its parent verb *hass-* ‘to give birth’. They differ in that the subject of *hass-* is usually the mother (rarely father), and the verb can be used intransitively, for the contexts see HW<sup>2</sup> H: 391ff., while the subject of *hassanu-* is usually a midwife, who helps to deliver a child, e.g., KUB 33.93+ III 10 *ḥa-aš-ša-nu-e-r=a-an* MUNUS<sup>M[EŠ]</sup> «They

<sup>138</sup> The form *harpanuanda* in KUB 26.32 I 32 may also belong here, but it was analyzed in Starke 1990: 232 as a *want*-adjective from *harpan-* ‘rebellion’.

brought him to birth, the wome[n] ...», cf. HED 3: 217. However, there is at least one example where a midwife is the subject of *hass-* – KBo 17.61 obv. 11 (MS) [ ]*wa=z*<sup>MUNUS</sup> *hasnuppallas ḫa-a-aš-ḫu-un* “[Ich], die Hebamme, habe [das Kin]d zur Welt gebracht” (see the electronic edition by Rieken at the HPM website). Therefore, the bare stem *hass-* could already convey what seems to be the quasi-causative meaning ‘to help to give birth’ besides the basic ‘to give birth’, and the derived stem *hassanu-* specializes in the former. As *hassanu-* is only attested in NS copies, it may be a relatively late formation that replaced *hass-* in the meaning ‘to help to give birth’. See further 7.2.3 and cf. Aikhenvald 2011: 136f. for a discussion of causatives made to labile verbs.

There is a cognate verb in Hieroglyphic Luwian, *has(a)-* ‘beget’. Hittite *hanzassa-* ‘offspring’, *hassu-* ‘king’, CLuw. *hamsa/i-* ‘grandchild’ are also commonly believed to belong to this root. Puhvel compares further Skt. *māṇśá-*, Goth. *mimz*, OCS *męso*, TochB *mīsa* ‘flesh, meat’ (allegedly going back to a reduplicated root noun *\*h<sub>2</sub>me-h<sub>2</sub>ms-* from the root *\*h<sub>2</sub>ems-*), see HED 3: 217f.; this connection is neither semantically convincing nor formally possible.

**hassik(ka)nu-** ‘to satiate, quench one’s thirst’

**3pl. pres. act.** *ḫa-aš-ši-ik-nu-an-zi* KBo 14.63a+ I 46 MS, KUB 29.40 II 5 MS;  
*ḫa-aš-ši-i[g-g]a-nu-an-z[i]* KBo 14.63+ IV 35 MS, *ḫa-aš-ši-ig-ga-nu-wa-an-zi* KUB 29.48 rev. 17 MS, KUB 29.44 III 38 MS

**2sg. imp. act.** *ḫa-aš-ši-iq-qa-nu-ut* KUB 25.23 IV 59 NH

There are no Hittite cognates, but in Palaic there is a related verb *has-* ‘to be satiated of drinking’:

KUB 32.18 obv. 7 *a-ta-a-an-ti ni-ip-pa-ši mu-ša-a-an-ti a-ḫu-wa-an-ti ni-ip-pa-aš ḫa-ša-a-an-ti* (similarly obv. 9, 18).

‘They eat, (but) do not have enough, they drink but do not quench their thirst’.

(Carruba 1970: 8, most recently Yakubovich 2009: 177).

The Palaic cognate *has-* makes it clear that *-ikk-* in *hassik-* is a suffix. Already Oettinger (1979: 194) analyzed *hassik-* as *\*h<sub>2</sub>es-K-*. HED 3: 231 further compares Pal. *has-* and Hitt. *hassikk-* to Greek ἄω ‘to satiate, take one’s fill’, but Beekes 2010: 146 connects the Greek verb with *\*seh<sub>2</sub>-* (LIV: 520f.), which hardly had any initial laryngeal. The root *\*h<sub>2</sub>es-* still could be envisaged if *has-* and *hassik-* are related to Lat. *inānis* ‘empty, hollow’ < *\*h<sub>2</sub>es-ni-* as suggested by Klingenschmitt (1994: 242f., s. also LIV: 273). However, a crucial point for all the etymological attempts is the geminated spelling *-ss-* in Hitt. *hassik-*. It can hardly go back to PIE /s/, for initial /hs-/ would have been spelled *ḫa-ši-*, *ḫe-ši-* or *ḫi-ši-*, s. Hoffner, Melchert 2008: 12f.

Since the root cannot be just *\*h<sub>2</sub>es-*, *-ss-* must reflect some kind of assimilation. The assimilated sound could have been a laryngeal, e.g., *hāssā-* ‘fireplace’ < PIE *\*h<sub>2</sub>eh<sub>1</sub>s-eh<sub>2</sub>-*, Skt. *āśa-* ‘ashes’, Lat. *āra* ‘altar’ (Kloekhorst 2008: 322). Alternatively, *-ss-* could go back to a sequence of a nasal and sibilant. The sequence *\*-VnsV-* was assimilated to Hitt. *-ss-*, see Melchert 1994: 163. The outcome of *\*-ms-* is less clear, see, e.g., the detailed discussion in Kimball 1999: 331f.; Melchert (1994: 164f.) suggests assimilation of *\*-ms-* to *\*-ns-*, while Kloekhorst 2008: 319f. argues that *\*VmsV* yields Hitt. *-ss-*, as in *hassu-* ‘king’ < *\*h<sub>2</sub>emsu-*, while *\*CmsV* yields Hitt. *-anz-* as in *hanzassa-* ‘offspring’. Note, however, that the data on the basis of which any of these scenarios can be confirmed or refuted is very limited. It appears that a stem of the type *\*h<sub>2</sub>eNs-k-* or *\*h<sub>2</sub>Ns-k-* with a suffix *\*-k-* would regularly yield *hassikk-* with an anaptyctic *-i-* (see, e.g., Hoffner, Melchert 2008: 43), as in, e.g., *hassikke-* < *\*hann-ske/a-*, imperfective stem of *hanna-* ‘to judge’.

Further etymology is not clear. Assuming that the Hittite and Palaic verbs go back to the stem *\*h<sub>2</sub>Ns-*, one may analyze it as *h<sub>2</sub>em(H)-s-* and the root *\*h<sub>2</sub>em(H)-*<sup>139</sup> ‘to pour’ (Klingenschmitt 1982: 118f., LIV: 265, Arm. *aman* ‘pot, vessel’, *amana-* ‘to fill’). The suffix *\*-s-* is relatively rare in Hittite, but it is assumed, e.g., for *tamass/tamess-* ‘to oppress’ from PIE root *\*demh<sub>2</sub>-* and a half a dozen of other verbs (see, e.g., Kloekhorst 2008: 823 and 2009). The Anatolian stem *\*h<sub>2</sub>m-s-* added another

<sup>139</sup> The laryngeal in the Auslaut is reconstructed in LIV because Arm. *amana-* is believed to go back to an infixed stem, but this is in fact not required as the *ana-*-type was productive, s. Kocharov 2011: 272f.

suffix, *\*-k-*, in the prehistory of Hittite and developed into *\*hamsk-*, then to *\*hansk-* and finally to *hassik-*<sup>140</sup>. As for Palaic verb, one has to assume that *has-* reflects the zero grade *\*h<sub>2</sub>ms-*, with the syllabic nasal yielding just *-a-*. Such a development is also attested in Hittite, e.g., in *katta* ‘down’ < *\*k<sub>ṃ</sub>to*, but its conditioning is clear neither for Hittite nor for Palaic. Summing up, even though the proposed root etymology is only tentative, I believe that *hassik-* goes back to an extended root of the type *\*h<sub>2</sub>Ns-k-*.

### **hatenu- ?**

**3sg. pres. act.** *ḫa-te-nu-zi* KBo 14.102 I’ 8 NS, KBo 21.76 4 NS, KBo 44.235 5 NS; [*ḫ*]*a-a-te-nu-zi* KUB 51.18 rev. 6 NS

All the contexts for this verb are damaged, see HW<sup>2</sup> H: 503. The phrase *n=at hatenuzi* is at least partially preserved in three of them, but in all instances it is not clear what the pronoun *at* refers to.

Neither meaning nor etymology of this verb can be established. HW<sup>2</sup> H: 503 suggests that *hatenu-* may be a variant of *hatnu-* ‘to dry up’, but the connecting vowel *-e-* is difficult to explain; cf. *-e-* in some forms of *pittinu-* ‘to run off with, carry off quickly’, derived from *piddai-* ‘to run, race’.

### **hatnu- ‘to (cause to) dry up’**

**3sg. pret. act.** *ḫa-at-nu-ut* VBoT 58 I 8 OH/NS; *ḫa-da-nu-ut* KUB 33.89+ III 21 NS

The spelling *ḫa-da-nu-ut* is likely to be a spelling variant for /hadnut/, but one cannot exclude the possibility that this spelling indicates a real vowel between the root

<sup>140</sup> Alternatively the development could have been *\*h<sub>2</sub>m-s-k-* > *\*hamsk-* > *\*hamsik-* > *\*hassik-* if we accept the rule *\*VmsV* > *VssV*; since the reflex of accented *\*é* in closed syllables was generally spelled without plene in post-OH texts (Kloekhorst 2014: 171), *hassik-* can also go back to the accented full-grade stem *\*h<sub>2</sub>ém-s-k-*. Given the scarcity of reliable examples for the development of the cluster *C(e)Ns-* in Hittite it is difficult to identify the correct scenario. A root-final laryngeal for this root does not fit in for this scenario. The stem *\*h<sub>2</sub>ṃh<sub>2</sub>-s-k-* would yield *\*\*hame/isk-*, as *\*dṃh<sub>2</sub>s-ent-* > Hitt. *da<sub>x</sub>-mi-eš-ša-an-t-*, cf. Kloekhorst 2008: 823f.

and the suffix *-nu-*, i.e. we find here a secondary suffix *-anu-*, for which see 4.10 below.

It is uncertain wheether *hatnu-* is a transitive or an intransitive verb, since both readings are possible in both passages, cf. VBoT 58 I 8 *widār ḥatnut* “waters dried up” or “he dried up the waters” and KUB 33.89 + III 21 *n=aš=kan arḥa ḥadanut*. The second passage is in fact translated as “und sie trocknete aus” by Rieken in the online edition at the HPM website. However, since the previous line is badly damaged, it may also be translated “he made them dry out”.

The base verb *hāt/hat<sup>hi</sup>* ‘to dry up (intr.)’ is related to Gr. ἄζω ‘to cause to dry up’, PIE *h<sub>2</sub>ed-*, s. HED 3: 248, LIV: 255.

**hatganu-** ‘to put pressure on, beset, beleaguer’

**3sg. pres. act.** *ḥa-at-ga-nu-zi* KBo 5.13 III 12 NH with dupl. KUB 6.41 III 34 NH, *ḥa-at-ga-nu-uz-zi* KBo 5.13 III 14 with dupl. KUB 6.41 III 36.

*Hatganu-* is derived either from *hatk<sup>hi</sup>* ‘to close, shut’ or from *hatku-* ‘tight, straight’. In KBo 4.3 II 8, dupl. to KBo 5.13 III 12 and KUB 6.41 III 34, *hatganu-* is replaced with *zamuraizzi* ‘assails’. For the etymology see *hatkesnu-*

**hatkesnu-, hatkis(sa)nu-** ‘to put pressure on, beleaguer’

**1sg. pres. act.** *ḥa-at-ke-eš-nu-mi* KBo 3.3 III 16 Murš. II

**2sg. pres. act.** *ḥa-at-ki-iš-nu-ši* KBo 3.1 II 44 OH/NS

**3sg. pres. act.** *ḥa-at-ki-iš-nu-uz-zi* KBo 5.9 III 24 Murš. II; *ḥa-at-kiš-nu-zi* KUB 31.86+ II 10 MH/NS, *ḥa-at-ki-<iš->nu-zi* KUB 52.75 obv. 1 NH, *ha[-at-g]i-<iš->nu-zi* KUB 52.75 obv. 11 NH

**1sg. pret. act.** *ḥa-at-ke-eš-nu-nu-un* KBo 3.4 II 65 Murš. II

**3sg. pret. act.** *ḥa-at-ke-eš-nu-ut* KBo 4.4 I 44 Murš. II

**3pl. pret. act.** *ḥa-at-ki-<iš->nu-e-er* KBo 4.7 I 3 Murš. II with dupl. [*ḥa-at-k*]i-iš-nu-er KUB 6.41 I 3; *ḥa-at-ki-iš-š[a-nu-er]* KUB 6.44 + I 3 Murš. II

**2sg. imp. act.** *ḥa-at-ke-eš-nu-ut* KBo 4.4 I 42 Murš. II; *ḥa-at-ki-iš-nu-ut* KUB 21.48 I 6 OH?/NS

**part. nom. pl. c.** *ḥa-at-ke-eš-nu-wa-an-te-eš* KBo 4.4 II 5 Murš. II; *ḥa-at-kiš-ša-nu-an-te-eš* KBo 14.7 I 9 Murš. II

**impf. 3pl. pret. act.** *ḥa-at-ki-iš-ša-nu-uš-ker* KUB 15.1 II 8 Hatt. III<sup>141</sup>; *ḥa-at-kiš-ša-nu-uš-ker* KUB 15.1 II 40 Hatt. III

Since the base verb *hatk-* means ‘to shut (doors, temples)’, both *hatkesnu-* and *hatganu-* ‘to put pressure on’ cannot be analyzed as its proper causatives. The stem *hatkes(sa)nu-* looks as if it is derived from an inchoative stem *\*hatkess-*, but such a derivation would be unparalleled, and a derivation from a nominal *s*-stem, *\*hatkes-*, is more plausible (so Rieken 1999: 228<sup>1077</sup>).

The verb *hatk-* has been plausibly compared to Gr. ἄχθομαι ‘be loaded, burdened’, PIE *\*h<sub>2</sub>ed<sup>h</sup>g<sup>h</sup>-* (HED 3: 268, LIV: 255).

**hatuganu-** ‘to terrify’

**3pl. pres. act.** (?) *ḥa-tu-ga-nu-wa-an-[zi]* KUB 8.79 rev. 16 NS

**verbal noun gen. sg.** *ḥa-tu-ga-nu-wa-<<wa>>-as* KUB 8.79 rev. 15 NS

For the contexts s. HW<sup>2</sup> H: 529. *Hatuganu-* is derived either from adjective *hatuga-* ‘terrible’ or, less likely, from *hatuk-<sup>zi</sup>* ‘to be terrible’. *Hatuk-* is often connected with Gr. ἀτύζομαι ‘to be distraught from fear, bewildered’ and further Skt. *tujyáte* ‘be routed’, PIE *\*h<sub>2</sub>teuǵ-*, cf. Kloekhorst 2008: 336f., LIV: 286.

**?hatugatarnu-** ‘to make formiddable’

**impf. 3 pl. pres. act.** *KAL-tar-nu-uš-kán-zi* KBo 12.109 7 NS

<sup>141</sup> For the dating see de Roos 2007: 37.

This verb is attested in a single fragmentary context; Puhvel (HED 1/2: 370) and HW<sup>2</sup> I: 64 attribute this form to the otherwise unattested verb *hatugatarnu-*. For the root etymology see the entry for *hatuganu-* above.

### ?hatunūt

*ha-tu-nu-ú-u[t]* KUB 28.98 IV 6 NS

The context is as follows:

KUB 28.98 IV

5 *nu ḥal-zi-iš-ša-i*

6 *ḥa-tu-nu-ú-u[t]*<sup>142</sup>

7 *wu<sub>u</sub>-ru-un ta-[...]e<sup>?</sup>-e*

8 *nam-ma(-)e-a(-)[...?]*

According to Soysal (2004: 457), *hatunūt* is a Hattic word. This is very likely, as *halzissai* in the line 5 appears to introduce direct speech and the words in the line 7 (*wu<sub>u</sub>r* ‘land’) are Hattic (Soysal 2004: 651, 775, 920).

### hinganu- ‘to grant, consign’

**3sg. pres. act.** *ḥi-in-ga-nu-zi* KBo 20.28 obv. 18, 20 OH/NS?, KBo 23.39 13, 14 MS?

**3pl. pres. act.** *ḥi-in-ga-nu-an-zi* KUB 43.29 III 10 MS, IBoT 2.6 obv. III 5 NS; *ḥi-in-ga-nu-w[a-an-zi]* KUB 59.17+ obv. 13 NS, *ḥi-in-ga-nu-wa-[an-zi]* ibid. 21<sup>143</sup>.

**inf. I** [*ḥ*]*i-in-ga-nu-an-z[i]* KBo 21.108+ V 5 OH/NS<sup>144</sup>

<sup>142</sup> Alternatively it can be read *ḥa-tu-nu-ú-wa<sub>x</sub>* (Soysal 2004: 457)

<sup>143</sup> Contra HW<sup>2</sup> H: 608, which lists this form under *hinganu-* ‘make bow’. The line 21 *n=as ANA DINGIR<sup>LIM</sup> hinganuwa[nzi]* is ambiguous, however, the line 13 [*INA É.DINGIR<sup>LIM</sup> pēhutanzi n=as ANA DINGIR<sup>LIM</sup> hinganuw[anzi]*] makes the attribution of these forms to *hinganu-* ‘to hand over’ more likely, cf. Popko 2004: 245ff.

<sup>144</sup> In dupl. KBo 11.73 obv. III? 6 we find *ḥi-in-ku-wa-an-zi* (for the context see Nakamura 2002: 151f.).



The forms of this verb are often assigned to *hinganu-* ‘to make bow’. Since all the contexts are partially damaged, it is not easy to establish the correct meaning. Here I mostly follow HW<sup>2</sup> H: 608ff. The difficulty may be illustrated with KBo 20.28 obv. 18 [x x <sup>LÚ</sup>GUD]U<sub>12</sub>? *Ì-an hinganuzi n=an=kan PANI LUGAL* (19) [*ŠUM-an ki*]ssan *halzianzi kantuwa<sub>a</sub>šu* (20) [x x x ]x <sup>GIŠ</sup>TIR=ma *partawa hinganuzi* translated in HW<sup>2</sup> H: 608 as “[Der Gesalb]te? lässt [x x] Fett/Öl darbieten. Und man nennt ihn vor dem König [fol]gendermassen [beim Namen]: *kantuwa<sub>a</sub>šu*. Den/Die Flügel des [x x x ]x des Waldes? lässt er darbieten”, while Klinger (1996: 249) translates *hinganuzi* in l. 18 as ‘darbieten’ and *hinganuzi* in l. 20 as ‘verbeugen’. CHD Š: 37 translates l. 18 as ‘he makes oil bow [to ]’. Another example is *hinganuzi* in KBo 23.39

13 <sup>GAD</sup>a-]la!-a-lu SA<sub>5</sub> A-NA <sup>D</sup>Hé-pát *hi-in-ga-nu-z[i*

14 ]an KÙ.BABBAR A-NA <sup>D</sup>Ta!-ki-<du> *hi-in-ga-n[u-zi*

This passage is translated by Tremouille (1997: 116f.) as “il fait faire une reverence” in contrast to ‘anbieten’ in HW<sup>2</sup>.

I do not see any difference between *hink-* and *hinganu-* ‘to grant, hand over’; *hinganu-* is always used in the context of a ceremonial offering, which is also a typical, though not the only, context for the base verb *hink-*.

For the etymology see *hink-* in 2.3.

### **hinganu-** ‘to (make) bow’

**3sg. pres. act.** *hi-in-ga-nu-zi* KBo 8.126 VI? 5 NS, KBo 20.113+ II 4 MH/NS, KBo 30.56 V 18 NS, KUB 2.10a 10 OH/NS, KUB 2.15 V 3 NS, KUB 57.20 4 MH/NS with dupl. KBo 34.39 I 4 MS, IBoT 4.86 obv. 1 NS, IBoT 4.103 rev. 1 NS; *hi-in-ga-nu-uz-zi* KBo 8.126 VI? 2 NS

Note that *hinganuzi* in KUB 2.10d 10 corresponds to *hingazi*<sup>145</sup> in dupl. KBo 10.24 IV 29 and is used intransitively (cf. Singer 1984: 20). It may also be intransitive in KBo 8.126 VI? 2[ <sup>URU</sup>T]ahurpa LUGAL-i *hinganuzz[i]* (3) [X *halz*]ai

<sup>145</sup> Emendation to *hi-in-ga<-nu>zi* is possible but not necessary, as the verb is intransitive in this passage and *hinganuzi* seems to have the same meaning as *hingazi* ‘to bow’

<sup>URU</sup>Tahurpanni (4) [X EGIR-]anda=ma UGULA LÚ<sup>MEŠ</sup> GiŠGIDRU (5) [X IN]A É.GAL<sup>LIM</sup> LUGAL-i hinganuzi, cf. HW<sup>2</sup> H: 609.

In other contexts it seems to be transitive, cf. KUB 2.15 V 3 LÚ<sup>GiŠ</sup>PA 2 LÚ<sup>MEŠ</sup>GUDÚ LUGAL-i hin<ga>nuzi “the herald makes two priests bow to the king”, sim. KBo 30.56 V 18 (s. Yoshida 1996: 307), KUB 10.54 IV 8 nu<sup>LÚ<sup>MEŠ</sup></sup>GUDÚ hi-in-ga-nu-u[z-zi].

The contexts in IBoT 4.103 rev. 1, IBoT 4.86 obv. 1, and KBo 20.113+ II 4 (for which see Wegner 2002: 124), are damaged, so it is not clear whether the verb is transitive in these passages.

Many scholars believe that *hink-* ‘to bow’ and *hink-* ‘to hand over’ belong to the same original root, and the meaning ‘to bow’ is a middle voice development of ‘to grant, hand over’ (see, e.g., Kloekhorst 2008: 269f.). If, however, *hink-* ‘to bow’ is not related to *hink-* ‘to grant, bestow’, it is likely to be cognate to Skt. *añc-* ‘to bend; draw water’, Lat. *uncus* ‘hook’, Gr. ἄγκών ‘elbow’, PIE \**h<sub>2</sub>enk-* ‘to bend’ (Oettinger 1979: 176, EWAia I: 53, LIV: 268).

**huinu-, huenu-** ‘to make run, send (troops), dispatch’

**1sg. pres. act.** *hu-i-nu-mi* KBo 7.14 obv. 18 OS or MS, KUB 35.148 III 20

MH/NS

**3sg. pres. act.** *hu-i-nu-zi* e.g., KUB 5.1 I 19 NH; *hu-u-i-nu-zi* e.g., KUB 9.4 II 12 NH; *hu-u-i-nu-uz-zi* KUB 29.1 I 41 OH/NS; *hu-u-e-nu-uz-zi* KUB 4.47 obv. 34 NS

**1pl. pres. act.** *hu-i-nu-um-me-ni* KUB 17.28 I 15 NS; *hu-i-nu-me-ni* VBoT 24 I 31 MH/NS

**3pl. pres.act.** *hu-i-nu-an-zi* e.g., KUB 53.14 II 8 OH/MS; *hu-i-nu-wa-an-zi* e.g., KUB 10.91 II 7 NH?; *hu-u-i-nu-wa-an-zi* e.g., KUB 53.6 II 12 OH/NS

**1sg. pret. act.** *hu-u-i-nu-nu-un* e.g., KUB 9.4 II 18, 20 NH; *hu-i-nu-nu-un* HKM 89 obv. 10 MS

**3sg. pret. act.** *hu-u-i-nu-ut* e.g., KBo 3.4 II 69 Murš. II, KBo 3.6 II 32 Hatt. III with dupl. KUB 1.1 II 51 Hatt. III; *hu-i-nu-ut* e.g., KUB 14.1 obv. 63 MS, HKM 89 obv. 13 MS

**2sg. imp. act.** *hu-u-i-nu-ut* e.g., KBo 5.4 obv. 19, 20, 22 LNS, HKM 13 obv. 10 MS; *hu-u-e-nu-ut* KBo 4.3 III 7 LNS; *hu-u-nu-ut* KUB 21.1 II 66 Muw. II; *hu-nu-ut* KUB 21.1 II 72 Muw. II

**2pl. imp. act.** *hu-i-nu-ut-tén* KUB 7.41 IV 20 MH/MS?; *hu-i-nu-ut-tén* HKM 41 obv. 14 MS

**3pl. imp. act.** *hu-u-e-nu-wa-an-du* KUB 40.57 I 6 MH/NS

**part. nom.-acc. sg. neut.** *hu-u-i-nu-wa-an* KUB 60.46 9, 10 LNS

**verbal noun gen. sg.** *hu-u-e-nu-ma-as* KBo 24.14 V 7 NS

**impf. 3sg. pres. act.** *hu-i-nu-uš-ke-ez-zi* KUB 33.115 II 7 MH/NS

**impf. 3pl. pres. act.** *hu-u-i-nu-uš-kán-zi* KUB 27.1 IV 14 NH

The stem *hunu-* is attested only in KUB 21.1 (CTH 76, Treaty with Alakšandu of Wilusa) and is likely to be a scribal mistake, cf. also *mu-un-na-a-zi* in IV 2 of the same text instead of expected *mu-un-na-a-iz-zi*.

*Huinu-* is derived from *huwai-/hui-* ‘to run’; it appears, however, that the original causative meaning has blackened, and in some contexts *huinu-* means simply ‘to move’, see Beal 1998: 86.

Puhvel (HED 3: 423) follows Sturtevant’s connection to Skt. *vay<sup>i</sup>-* ‘to to set out for, seek’; according to LIV: 668f., however, the root is *\*weih<sub>1</sub>-*, so this etymology is formally impossible. Kloekhorst (2008: 367) accepts Cuvreur’s comparison to PIE *\*h<sub>2</sub>weh<sub>1</sub>-* ‘to blow’ (LIV: 287). The most plausible, however, is the connection of *huwai-* with Lat. *iuvō* ‘to help’, Skt. *av<sup>i</sup>-* ‘to help, protect’, PIE *\*h<sub>2</sub>eu<sup>h</sup><sub>1</sub>-* ‘to help’ (García Ramón 2016). At first sight, the meanings ‘to run’ and ‘to help’ are quite distant from each other. However, Hitt. *huwai-*, when used with the preverb *peran*, actually means ‘to help’ (< ‘to run ahead’?), which shows that the semantic development ‘to run’ > ‘to help’ is possible.

**huisnu-, husnu-** ‘to rescue, keep alive, spare’

**1sg. pres. act.** *hu-iš-nu[-mi]* KBo 39.223 3’ NH

**2sg. pres. act.** *TI-nu-ši* KUB 57.116 obv. 10 NH

**3sg. pres. act.** *hu-iš-nu-zi* KBo 6.26 II 10, III 22, IV 12, 18 OH/NS; *hu-u-iš-nu-zi* e.g., KBo 6.26 IV 14 OH/NS, KBo 31.95+ II 5', 7' MS, KUB 14.8 rev. 22 Murš. II, KUB 29.33 II 6 OH/NS; *hu-iš-nu-uz-zi* KUB 30.10 rev. 25 OH/MS; *ha-iš-nu-uz-zi* KBo 11.10 II 21 MH?/NS; *TI-nu-zi* e.g., VBoT 58 I 27<sup>146</sup> OH/NS

**1pl. pres. act.** *hu-iš-nu-mi-ni* KBo 32.15 II 18 MH/MS

**3pl. pres. act.** *hu-iš-n[u-an-zi]* VBoT 58 I 6 OH/NS; *TI-an-zi* KBo 13.62 obv. 13 NH

**1sg. pret. act.** *hu-iš-nu-nu-un* KUB 14.1 obv. 14 MH/MS, KUB 26.34 3 Supp. I

**3sg. pret. act.** *hu-iš-nu-ut* KUB 14.1 obv. 4, 10, 11 MH/MS, VBoT 58 I 44 OH/NS; *hu-uš-nu-ut* KBo 3.36 obv. 9 OH/NS; *TI-nu-ut* e.g., KBo 4.12 obv. 8, 10 Hatt. III; *hu-iš<sup>1</sup>-nu-ú-ut*<sup>147</sup> KBo 3.28 II 19 OH/NS

**3pl. pret. act.** *hu-iš-nu-e-er* KBo 31.95+ III 15 MS, KUB 34.40 15 MH/MS

**2sg. imp. act.** *hu-iš-nu-ut* e.g., KUB 14.8 rev. 21 Murš. II, KUB 14.10 IV 21, KUB 36.75 III 9 OH/MS; *TI-nu-ut* KBo 4.6 obv. 17 Murš. II, KBo 4.12 I 8 Hatt. III, KUB 14.8 rev. 37 Murš. II, KUB 14.11 IV 18, 25 Murš. II, KUB 36.83 obv. I 10 NS; *hu-u-iš-nu-ut* KUB 14.8 rev. 45 Murš. II

**3sg. imp. act.** *hu-iš-nu-ud-du* KBo 4.2 I 60 pre-NH/NS, KUB 30.10 rev. 3 OH?/MS; *TI-ud-du* KUB 24.9 III 9 MH/NS

**2pl. imp. act.** *hu-uš-nu-ut-tén* KUB 31.64 II 14 OH/NS; *hu-iš-nu-ut-tén* KBo 15.28 rev. 10 MS

**partic. nom.-acc. sg. neut.** *TI-nu-an* KUB 15.1 I 5 NH, KUB 15.17+ I 4 NH, KUB 24.10 III 32 MH/NS; *TI-an* KBo 8.68 IV 8 NS, KBo 13.62 obv. 5 NH, KBo 17.62+ IV 6 MH/MS?; *hu-iš-nu-wa-an* KBo 24.24 III 23 MS

**verbal noun gen. sg.** *TI-nu-ma-aš* e.g., KUB 13.4 III 53 MH/NS

**impf. 1sg. pres. act.** *hu-iš-nu-uš-ke-mi* KBo 16.24+ I 58 MH/NS

**impf. 2sg. pres. act.** *hu-iš-nu-uš-ke-ši* KUB 36.128 I 4 OH/NS, KUB 36.83 obv. I 15 NS

<sup>146</sup> This form is interpreted as *ti-nu-zi* by Rieken in the electronic edition of this text at the HPM website. If so, it belongs to *tin(n)u-* 'to paralyze', see the respective entry. The phrase *apunn=a=wa TI/ti-nuzi* may be translated as both "he will spare him" and "will he paralyze him?"

<sup>147</sup> On this reading see Kloekhorst 2014: 497<sup>1931</sup>.

**impf. 3sg. pres. act.** *hu-iš-nu-uš-ke-ez-zi* KBo 4.2 I 59 pre-NH/NS, *hu-iš-nu-iš-ke-ez-zi* KUB 24.9 III 8 MH/NS

**impf. 3sg. pret. act.** *hu-iš-nu-uš-ke-e-et* KBo 3.28 II 18 OH/NS

Just like *tepnu-*, *huisnu-* shows the full grade of the root. In the New Hittite copies of the Old Hittite texts, we occasionally find a zero grade in the root of this verb (*hu-uš-nu-ut-tén* KUB 31.64 II 14, *hu-uš-nu-ut* KBo 3.36 obv. 9).

The verb *huisnu-* is derived from *hues-* ‘to live, survive’, which goes back to PIE *\*h<sub>2</sub>wes-* (Skt. *vásati* ‘to dwell’, TochB *wäs-* ‘to rest, reside’, Goth. *wisan* ‘to be’, Gr. aor. ἄεσα ‘spent the night’), s. LIV: 293f.

Besides *huisnu-* there is also an *u*-stem adjective *huesu-* that, however, means ‘fresh’ rather than ‘alive’, which shows that *huesu-* and *huisnu-* were derived independently.

Surprisingly, in this verb, *-s-* is never geminated before *-n-*, in contrast to other *nu*-verbs, e.g., *as(sa)nu-* ‘to provide, take care of’ or *sas(sa)nu-* ‘to make lie down, put to bed’, where *-s-* is doubled as expected (for the gemination of /s/ next to resonants already in Proto-Anatolian see, e.g., Melchert 1994: 150f., Kimball 1999: 428)<sup>148</sup>. Therefore, the consistent single *-s-* in *huisnu-* is problematic. *Huisnu-* once shows a plene in the suffix (*hu-iš<sup>1</sup>-nu-ú-ut* KBo 3.28 II 19 OH/NS); in this respect it resembles <sup>DUG</sup>*isnūra/i-* ‘dough-bowl’, which is also consistently spelled with a single *-s-* and often with a plene in the second syllable (see HW<sup>2</sup> I: 201). In contrast, *is(sa)na-* ‘dough’ is often spelled with a geminated *-ss-*; its only form with a plene in the syllable following *-sn-* is G.Sg. *iš-na-a-aš*, which is spelled with a single *-s-* in all the four attestations, cf. HW<sup>2</sup> I: 96. One way of reconciling these facts with each other would be to suppose that *-s-* was not geminated before *-n-* if the following vowel was long (or accented?).

**huntarnu-** ‘to grunt’

<sup>148</sup> Note, however, that in at least in *as(sa)nu-* and *sas(sa)nu-* the geminated *-s-* occurs usually in late texts and copies and in any event not earlier than MS texts.

**3sg. pres. act.** *hu-un-tar-nu-uz-zi* KBo 12.96 I 12 MH/NS

HED 3: 383 gives the following sole attestation: [UR.ZÍ]R *wappiyazi* ŠAH-as *huntarnuzzi* “the dog barks, the pig grunts”. Both in both formation and intransitive usage it is parallel to *nuntarnu-* ‘to hurry’.

According to Eichner (1979b: 56), the base verb *huntariye/a-* ‘to grunt’ ultimately goes back to *huwant-* ‘wind’ and further to PIE *\*h<sub>2</sub>weh<sub>1</sub>-* ‘to blow’ (LIV: 287). However, the syncope of *-iya-* implicit in Eichner’s solution is not regular, since the sequence is preserved in, e.g., *parkiyanu-* ‘to raise’, *edtriyanu-* ‘to feed’ or *kartimmiyanu-* ‘to make angry’. Therefore, a derivation from a noun *\*huntar* is preferable. Other examples for deriving *nu*-verbs from nouns are *esharnu-* ‘to make bloody, red’ from *eshar* ‘blood’, *\*hatugatarnu-* (KAL-*tarnu-*) ‘to make formidable’ and, likely, *nahsarnu-* ‘to make (someone) afraid’ and *nuntarnu-* ‘to hurry’. On the derivation of *nu*-verbs from *iye/a-*stems, see further 4.6.

**inu-, enu-** ‘to make hot’.

**3sg. pres.act.** *i-nu-uz-zi* VSNF 12.79 obv. 9 MS, *e-nu-zi* KUB 44.61 rev. 20 NS

**3pl. pres.act.** *i-nu-wa-an-zi* HW<sup>2</sup> 43, *i-nu-an-zi* KBo 21.21 III 9 MS

**2pl. imp.act.** *i-nu-ut-te-en* KBo 22.2 obv. 9 OH/MS

**part.** *e-nu-wa-an-d[a-an]* ? KUB 10.21 V 5 NS

**impf. 3sg. pres. med.** *i-nu-uš-ke-et-ta-ri* KBo 13.119 I 7 OH/NS

**impf. 3sg. imper. act.** *i-nu-uš-ke-ed-du* KBo 6.34 II 27 MH/NS

The forms *enuzi* and *enuwand[an]* may or may not belong here, since the meaning of these forms cannot be established; as for *-e-* in the anlaut, the alternation of *-e-* and *-i-* next to a nasal sometimes occurs in NS texts, e.g., in *ne-ni-ik-ta-ri* (KBo 1.12 II 30), see 2.4. In fact, Kloekhorst (2008: 241) takes *e-nu-zi* and *e-nu-wa-an-d[a-an]* as forms of an independent verb.

The verb *inu-* is derived from *ā(i)-* ‘to be hot’. The frequent spelling *a-a-* of *āi-* vs. *i-* in the *inu-* point to a contraction of the original *\*aya-* in the anlaut, cf. HED 1/2:

12, Kloekhorst 2008: 165. One may therefore compare the Hittite verb with Gr. αἶθω and Skt. Aor. *idhīmahi*, nasal Pres. *inddhé*. Due to the vocalism of the Greek forms LIV: 259 reconstructs the root as *\*h<sub>2</sub>eid<sup>h</sup>-*. The *\*-d<sup>h</sup>-* could be a root extension, but the initial *\*h<sub>2</sub>-* should have been preserved in Hittite. Tentatively one can think of a root *\*h<sub>1</sub>ai-* with an extended variant *\*h<sub>1</sub>ai-d<sup>h</sup>-*, though this is far from certain.

There is a derivative verb *enumai-* ‘to make warm or hot’ (*e-nu-ma-at-ta-ri* KUB 1.13 II 37 MH/NS). In view of the parallel formation *esharnumai-* ‘to become bloody’, the skepticism of Kloekhorst (2008: 242), who analyzes this form as an unrelated verb with an unclear meaning, is unwarranted. The extension in *-mai-* is likely to have developed from the stems of the type *\*enuwai-* and *\*esharnuwai-*, cf. a secondary stem *unuwai-* from *unu-* ‘to decorate’ with occasional *ú-nu-ma-an-zi* KUB 27.49 III 23 (Kloekhorst 2008: 309). The stem *unuwai-* is attested in NS texts only and therefore is likely to be a late formation, created at the time when the change *\*-uw- > -um-* no longer applied, which could mean that this sound change ceased to operate in NH.

**isparnu-** ‘to spread out, sprinkle, strew’

**1sg. pres.act.** *iš-pár-nu-mi* KUB 7.57 I 8 MH/NS

**3sg. pres.act.** *iš-pár-nu-zi* KBo 20.10 + I 12, II 9 OS or MS; *iš-pár-nu-uz-zi* KBo 8.102 6’ NS; KBo 58.185 lk’ Kol. 5’ NS

**1sg. pret.act.** *iš-pár-nu-nu-un* KUB 41.19 rev. 9 MH/NS

**3sg. pret.act.** *iš-pár-nu-ut* KUB 19.9 IV 12 Hatt. III

**impf. 3sg. pres.act.** *iš-pár-nu-uš-ke-ez-zi* KUB 12.29 I 5 NS

I follow Watkins (1975: 377) and Kloekhorst (2008: 407) in distinguishing between *ispar(r)-* ‘to trample’ and *ispār/ispar-* ‘to spread out’; on this topic, see most recently Melchert 2014. The stem *isparnu-* ‘to spread out, sprinkle’ is derived from the latter verb.

The typical object of *isparnu-* is ‘water’, see the examples collected by Alp (1983: 19<sup>7</sup>) and Melchert (2014: 500):

KBo 20.10+ obv. II 8: *ta LUGAL-un suppiyahhi w[a]tar III-ŠU (9) isparnuzi* “he purifies the king and sprinkles water 3 times”,

KUB 12.29 I 4 : [ ] LÚ <sup>d</sup>U *wātar ANA EN SISKUR (5) [ i]š-pár-nu-uš-ke-ez-zi* “the Man of Stormgod sprinkles water on the ritual client”

KBo 8.102 6: *wātar iš-pár-nu-u[z-zi] (7) [LUGAL-u]n šuppiyahhi* “he sprinkles water, purifies the king”

and perhaps

KBo 58.185 left col. 5 [ ] III?-ŠU *iš-pár-nu-uz-zi* “s/he sprinkles 3<sup>?</sup> times”

In some contexts, however, the meaning of *isparnu-* is similar to that of the base verb, ‘to spread (out)’, cf. KUB 41.19 rev. 8’ *a[r]ha duwarninun n=at=kan awa[n] (9) [ p]arā iš<sup>l</sup>-par-nu-nu-un* “zerbrach ich und sie ganz [b]reitete ich aus?” (Haas and Wegner 1988: 104) or KUB 7.57 I 7-8 *nu=wa=ssan paimi [ ]hūmanni<sup>149</sup> iš-pár-ra-aḥ-ḥi* <sup>MUNUS.MES</sup>ŠU.GI *iš-pár-nu-mi*, ‘and I shall go [...] shatter [it and] make the sorceress scatter’ (HED 1/2: 441). Therefore, it is safe to restore *isparnu-* in KUB 48.76 + KBo 6.4 I 2-3 2 *ektan (3) [ iš-pár-]nu-zi* and in KBo 55.52 left. col. 13-15’ *[iš-pár-]nu-wa-an-zi nu ARNABU ektet [appanzi]* pace Hoffner (1977a: 107), who argued against this restoration on the grounds that *isparnu-* requires ‘water’ as its object.

The fragment KUB 19.9 IV 12 is so badly damaged that the meaning of *iš-pár-nu-ut* in this context cannot be established.

Summing up, in some contexts the meaning of *isparnu-* is essentially the same as that of *ispar-* ‘to spread out’; the difference is that the parent verb, to my knowledge, never takes water as its object, in contrast to *isparnu-*, where water is the most common object. One may think perhaps of some kind of intensive or iterative meaning of *isparnu-*, see further 4.14-5 and 7.2.3.

Hitt. *ispār/ispar-* is cognate with CLuw. *parri-* ‘to spread, smear’, Gr. *σπείρω* ‘to spread out’, both going back to PIE *\*sper-* (LIV: 580).

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<sup>149</sup> *Humanna/i-* is a hapax, and its meaning is not clear, see HW<sup>2</sup> H: 712.



**ispiyanu-** ‘to satiate’

**verbal noun n.sg.** *iš-pi-ya-nu-mar* ‘satiation’ KBo 11.1 rev. 21 NH

The verb *ispai/i-* ‘to get full, be filled’ is related to OCS *spěti* ‘be successful’, Skt. *sphāyate* ‘grow fat’, Lat. *spēs* ‘hope’, PIE *\*sp<sup>h</sup>eh<sub>1</sub>-* or *\*speh<sub>1</sub>-*, cf. HED 1/2: 431, Kloekhorst 2008: 404, LIV: 584.

The weak stem of *ispai/i-* ‘to get full, be filled’ is *ispi-*, so one would expect *\*ispinu-* instead of actual *ispiyanu-*; see further 4.6.

**istantanu-** ‘to put off, delay’

**2sg. pres. act.** *iš-ta-an-ta-nu-ši* KUB 48.122 I 3 NH

**1sg. pret. act.** *iš-ta-an-ta-nu-nu-un* KUB 22.67 6 NS

**impf. 2pl. pres. act.** *iš-ta-an-ta-nu-uš-kat-te-ni* KUB 13.4 IV 7, 37 MH/NS

For the context cf. *mān[=ma]=at istantanuskatteni* ‘if you keep putting it off’, ibid. 37 *n=at lē istantanuskatteni* ‘do not put it off!’ (HED 1/2: 465) and KUB 15.5 + KUB 48.122 I 46 *[nu=w]ar=at mān istantanusi=ya* ‘and if you ... hesitate about that’ (de Roos 2007: 72, 80).

The parent verb *istantāye-* ‘to linger, stay put’ is intransitive and is usually connected with Goth. *standan* ‘to stand’, s. Kloekhorst 2008: 414. They both go ultimately to PIE *\*steh<sub>2</sub>-* and may possibly be parallel developments, cf. LIV: 591<sup>1</sup>.

Note that *istantāye-* had shifted to the *hatrāi*-class by the New Hittite period (Kloekhorst 2008: 414), and *istantanu-* is clearly based on the later variant *istantāi-*.

**istappinu-** ‘to shut off?’

**3pl. pret. act.** *iš-tap-pi-nu-er* KUB 8.52 6 NS

The verb *ištappinu-* is derived from *istap(p)-* ‘to shut, close’; however, the origin of medial *-i-* is not clear – one would expect the suffix *-nu-* to be attached immediately to the stem, resulting in *\*istapnu-* or *\*istappanu-* with the graphic *-a-* before *-nu-*; see

further 4.6. Deriving *istappinu-* from *\*istappyie/a-* would be regular, but such a stem is not attested.

The passage containing *istappinu-* is partly damaged, so the context of *pa-ra-a-ta-za iš-tap-pi-nu-e[r]* is not entirely clear. HED 1/2: 474 translates it as “they shut you out”, which is followed by Rieken in her electronic edition at the HPM website. Under this translation, the meaning of *istappinu-* is similar to that of *istap(p)-*, i.e. ‘to shut, close’. The usual objects of *istap(p)-* are gates or holes as well as people, cf. *nu URU<sup>DIDL.ḪI.A</sup> anda istappandu* “they shall shut in the towns[people]” KUB 13.2 I 7 or *n=an=kan INA<sup>URU</sup> Samuha ŠAḪ GIM-an hūmma EGIR-pa istappas* “She shut him up at Samuha like a pig in the sty” KBo 3.6 III 56-57, cf. HED 1/2: 472f. There seems to be little, if any, semantic difference between these verbs. The only divergence is that *istappinu-* is used with the reflexive particle *-za* while *istap(p)-* is used without it, at least in the passages given in HED.

Melchert (2012: 180) connects *istap(p)-* with PIE *\*stembh(H)-*, Skt. *stabhnāti* ‘to fasten, fix (in place)’, cf. also HED 1/2: 474.

### **kanganu- ‘?’**

1sg. pres. act. *kán-ga-nu-mi* KUB 21.27 III 42 Hatt. III

3sg. pres. act. *kán-ga-nu-u[z-zi]* IBoT 1.6 VI 13 NS

3sg. pret. act. *kán-ga-nu-ut* KUB 22.51 obv.6 NH; *kán-qa-nu-ut* KUB 22.51 obv.9 NH

HED 4: 50 gives the following context for KUB 21.27 III 42 (CTH 384, Puduhepa's Prayer to the Sun-goddess of Arinna): *ALAM KÙ.BABBAR ŠA<sup>1</sup>Hattusili<sup>1</sup>Hattusilis masiwanza SAG.DU-ZU ŠU.MEŠ-ŠU GÌR.MEŠ-ŠU ŠA GUŠKIN iyami arha=ya=an=ma=kan kanganumi* “a life-size silver statue of Hattusilis with head, hands, and feet of gold I shall make and shall have it weighed”. In the electronic edition of CTH 384 at the HPM website *kanganu-* is translated as ‘abwiegen’. Note that the sequence *ar-ḫa-ya-an-ma-kán* may also be analyzed as *arhayan=ma=kan*, with

*arhayan* meaning ‘separately’. The verb may mean ‘to weigh’ here<sup>150</sup>, but it may also mean something different, e.g., ‘to mount, attach’ < ‘to make hang’.

In KUB 22.51 (CTH 577, an oracle inquiry) the object of *kanganu-* is GÌR<sup>HLA</sup> ‘feet, legs’, cf. obv. 5 *na-aš-kán pí-an SIG<sub>5</sub>-an ú-et na-aš GUN-li<sub>12</sub> zi-la-an ú-et x[ ]* (6) GÌR<sup>HLA</sup> *kán-ga-nu-ut* and obv. 9 *šu-lu-pé-eš-ma ku-iš GUN-li<sub>12</sub> TI<sub>8</sub><sup>[MUŠ]EN</sup>-ma tar-li<sub>12</sub>-an GÌR<sup>HLA</sup> kán-qa-nu-ut*. Tischler (HEG I-K: 1148) translates these lines as follows: “Er (*sulupi*-bird) ist vorne aus dem günstigen (Gebiet) gekommen und er ist von diese Seite GUN-li gekommen. [...] (6) ließ er die Füße hängen” and “Der *sulupi* aber, welcher GUN-li (gekommen ist und) der Alder ließ *tar(wiyal)lian* die Füße hängen”, but it is not clear what *kanganu-* means here. Nevertheless, since it describes either birds’ behavior or an action involving birds’ legs, the meaning is hardly ‘to weigh’.

For the alleged [*ká*]*n-ga-nu-uš-kán* (KUB 42.83 IV 5, misspelled as KUB 42.83 VI 5 in HED 4: 50), see Hoffner 2000: 71 who doubts that the first sign should be read as KÁN.

The putative base verb *kank-* belongs to PIE \**kenk-* ‘to hang’, Goth. *hāhan* ‘to hang’, Skt. *śāṅkate*, Lat. *cunctor* ‘to waver, hesitate’, cf. LIV: 325.

**kari(ya)nu-** ‘to cause to stop, make cease, cut short, silence’

**3pl. pres. act.** *ka-ri-nu-an-zi* KBo 20.9 12 OS, KBo 20.14 + obv. 14 OS, KBo 30.154 I 4 OH/MS; *ga-ri-nu-an-zi* KBo 25.31 III 7 OS; *ka-ri-nu-wa-an-zi* KUB 1.17 VI 31 OH/NS, KUB 12.8 II 21 NS

**3sg. pret. act.** *ka-ri-ya-nu-ut* KUB 14.3 I 11 NH

In Old Hittite texts, the objects of *karinu-* are lyres (GIŠ<sup>D</sup> INNARA) and drums (<sup>(GIŠ)</sup> *arkammi-*), but in KUB 14.3 (Tawagalawa-letter) the object is the crown prince. Puhvel (HED 4: 82f.) derives *karinu-* from *kariye/a-* ‘to make a pause, stop’, allegedly attested in KUB 25.22 obv. 26, rev. 20, 30, KUB 17.10 I 34 and KUB 8.48 I 1.

<sup>150</sup> The meaning of the sentence is then that the sculptor is going to weigh the parts made of different precious metals separately, perhaps for reasons of accounting.

Kloekhorst (2008: 450) correctly notes that Puhvel's interpretation of *kariya-* is ad hoc; he assigns these forms to *kariye/a-* 'to cover, hide'. The examples of the latter are as follows: KUB 30.15 + obv. 7 *nu mahhan hastai lessuwanzi zinnanzi n=at QADU GAD* (8) *IŠTU TÚG.SIG-ya anda kariyanzi* 'When they finish to gather the bones, they wrap them in the linen and fine cloths' (Kassian, Korolev, Sideltsev 2002: 260f.) or KUB 2.13 I 49 *n=asta* <sup>GIŠ</sup>BANŠUR GADA-*it kariyanzi* 'Dann bedeckt man den Tisch mit einen Tuch' (Klinger 1996: 548f.). The context of KUB 19.37 III 11-12 [*nu t*]uzzius UD-*az kāriskinun [isp]andaz=ma iyahhat* "in daytime I had my troops take cover, but at night I marched" (HED 4: 82) is especially close to KUB 25.22, e.g., obv. 25 <sup>URU</sup>Hanhanaz=*kan arha* <sup>URU</sup>Hattena *andan nu INA URU.DU* <sup>HLA</sup> <sup>URU</sup>Katruma (26) *kariyazi* "Out of the city Hanhana, towards the city Hattena. In the ruins of Katruma he k.-s." (translation by Kloekhorst 2008: 450). Semantical development 'to cover' > 'to stop' or 'to silence' is trivial, cf. ModE. *wrap up* or *shut up*. In this case, *kariya-* is a labile verb, i.e. it can be both transitive and intransitive, which is not very common for Hittite verbs.

According to Puhvel (HED 4: 82), *kariye/a-* 'to cover, hide' is related to Skt. *cārman-*, Av. *carəman-* 'skin, hide', Lat. *corium* 'leather', OHG *skirm* 'cover, shelter', PIE *\*(s)ker-*. He claims this root is not related to PIE *\*(s)ker-* 'to cut off, shave', but this is unlikely; words for 'leather', 'skin' are often made from the roots meaning 'to cut off', cf. Gr. *δέρμα* 'skin' derived from *δέρω* 'to skin, flay' and ultimately from PIE *\*der-* 'to tear', Skt. *dar-* 'to split', OHG *gatairan* 'to tear up', OCS *dbrati* 'tear' (Beekes 2010: 318f., LIV: 119).

**karpanu-** 'to pick up, take away?'

**3sg. pres. act.** *kar-pa-nu-zi* KBo 10.45 IV 43-44 MH/NS with dupl. KUB 7.41 IV 11 MH/MS?

**3pl. pres. act.** *kar-pa-nu-wa-an-z[i]* KUB 36.83 I 28 NS

Puhvel (HED 4: 97) gives the following context: *n=at karpanuzi n=at LÍL-ri pedāi*; dupl. KUB 7.41 IV 11 *n=at karpanuzi n=at gimra pēda[i]* 'he picks it up and

takes it to the range'). The context in KUB 36.83 is severely damaged. Bawanypeck (2005: 268) renders it as follows [...] *-ar-ša-an-ta-an kar-pa-nu-wa-an-zi* “(und [man] gibt ihn frei.) Den [...] lässt man wegbringen.”; cf. also obv. I 25 [...] *-ar-ša-an-da-an tu-u-ri-ya-an-zi* “they yoke?”. Regretfully, we cannot say if there is any semantic difference between *karpanuwanzi* in obv. 28 and *karpuwanzi* in obv. 23 *n=at=za namma karpuwanzi d[āis?* in obv. 23. Fuscagni translates the latter context in the electronic edition at the HPM website as “(und) er wird bereit sein, um es/sie nochmals aufzuheben” noting that the exact sense of this phrase remains unclear.

*Karpanu-* in KUB 7.41 is used similarly to the active forms of *karp-*, which also often means ‘to lift, pick up, remove’, cf. KBo 17.74 IV 23 <sup>GIŠ</sup>BANSUR<sup>HI.A</sup> *karpanzi t=us[=ta] parā pedanzi* “they pick up the tables and take them forth” (HED 4: 95). The middle forms mean rather ‘to come to an end’. In this respect, *karpanu-* is different from *karsanu-* ‘to stop, cancel’, which was derived from the middle stem meaning ‘to stop, cease’ rather than from the active stem meaning ‘to cut, separate’.

The base verb *karp-* has been compared to Lat. *carpō* ‘to pick’ and thus to PIE *\*(s)kerp-* ‘to pick, pluck’, see HED 4: 97f. The comparison with Skt. *grabh<sup>i</sup>-* ‘to grab’ and PIE *\*g<sup>h</sup>rebh<sub>2</sub>-* (Oettinger 1979: 345, LIV: 201) is flawed formally, s. Kloekhorst 2008: 453.

**karsanu-** ‘to stop, cancel, withhold’

**2sg. pres. act.** *kar-ša-nu-ši* KUB 19.55 rev. 46 NH

**3sg. pres. act.** *kar-ša-nu-zi* KUB 21.17 III 23 NH

**1sg. pret. act.** *kar-ša-nu-nu-un* KBo 12.58 + obv. 3 NS; *kar-aš-nu-nu-un* KBo 14.75 I 15 NS

**3pl. pret. act.** *kar-aš-nu-er* KUB 5.7 obv. 4, 11, 33 NS; *kar-ša-nu-er* KUB 6.37 obv. 12 NS, KUB 16.35 13 NS, IBoT 2.129 obv. 15 NS; *kar-aš-ša-nu-er* IBoT 2.129 13 NS, KUB 18.63 IV 7, 16 NS

**impf. 3pl. pres. act.** *kar-aš-nu-uš-kán-zi* KUB 5.7 obv. 6 NS

**impf. 3pl. pret. act.** *kar-ša-nu-uš-ker* KUB 5.7 obv. 25 NS

Most attestations for *karsanu-* come from MUŠEN *HURRI* oracles and prayers. While active forms of *kars-* mean mostly ‘to cut, separate’, *karsanu-* means ‘to stop doing smth., withhold, cease’, and must have been derived from the middle stem of *kars-*, which could also mean ‘to stop’, e.g., KUB 14.12 rev. 9-10 *nu mān apūss=a arha akkanzi nu ANA DINGIR<sup>MEŠ</sup> BE[LU<sup>MEŠ</sup>-YA<sup>NINDA</sup>harsis] ispantuzzi karastari* ‘when those too die off, bread and libation to the gods my lords will stop’ (HED 4: 100f.).

The etymology of *kars-* is securely established. It is an *s*-extension of PIE *\*(s)ker-* ‘to cut (off)’ (LIV: 556f.). For the extended root *s*. Toch. AB *kärs-* ‘to know’ with a Class VI nasal present A *kärsnām*, B *kärs(a)naṃ* and also TochA *käršt-*, B *kärst-* ‘to cut off’, LIV: 355f., Malzahn 2010: 579f., 582f., Adams 2013: 176ff.

**kartim(miya)nu-** ‘to make angry, anger’

**3sg. pres. act.** *kar-tim-mi-ya-nu-zi* KUB 36.89 rev. 15 Tudh. IV; *kar-tim-nu-uz-zi* KUB 26.43 obv. 62 NH; TUKU.TUKU-*nu-zi* e.g., KUB 13.4 I 29 MH/NS; TUKU.TUKU-*ya-nu-zi* KUB 13.4 I 34 MH/NS

**3pl. pres. act.** (?) *kar-tim-mi-ya-nu-wa[-* KUB 12.24 I 20 NS

**3sg. pret. act.** *kar-tim-mi-ya-nu-ut* e.g., KUB 12.24 I 5 NS, KUB 21.49 I 7 Murš.

II

**part. n.-acc. sg. neut.** *kar-di-mi-nu-wa-an* KBo 17.105 II 35-36 MH/MS

TUKU.TUKU-*nu-wa-an* KUB 36.96 4 NS; *kar-tim-mi-ya-nu-wa-an* KUB 60.109 obv. 7 LNS

*Kartimmiyanu-* is derived from *kartimmiya-* ‘to become angry’ and ultimately from *ker*, *kard-* ‘heart’ (PIE *\*kerd-*). There is another causative made to the same verb, *kartimmiyahh-*, with the same meaning (s. HED 4: 111). Both causatives are attested already in Middle Hittite originals, and *kartimmiyanu-* is also attested in a New Hittite copy of an Old Hittite text.

The form *kar-tim-nu-uz-zi* in KUB 26.43 obv. 62 is unexpected, as the suffix *-nu-* is usually added to *-ye/a-* rather than replaces it, cf. e.g., *parkiyanu-* ‘to raise’ and 4.6. Therefore, this form is to be emended to *kar-tim-<mi->nu-uz-zi*.

**karūssiyanu-** ‘to silence’

**3pl. pres. act.** *ka-ru-uš-ši-ya-nu-u-wa-an-zi* e.g., KUB 39.7 III 39 OH?/NS; *ka-ru-ú-uš-ši-ya-nu-wa-an-zi* e. g. KUB 2.10 III 12, V 33 OH/NS; *ka-ru-uš-ši-ya-nu-an-zi* e.g., KUB 10.24 I 20 OH/NS, KUB 11.25 III 24 NS

The objects of this verb are people and musical instruments. The parent verb *karūssiya-* ‘to be quiet, fall silent’ has been compared by Eichner (1975b: 164) to OSwed. *krysta*, Goth. *kriustan* ‘to gnash’, OHG *chrosōn*, MHG *krosen* ‘to gnash’, PIE *\*greus-*. This comparison is not convincing semantically, see HED 4: 117. *Karūssiya-* may be cognate to *kariya-* ‘to cover’ (s. u. *kari(ya)nu-*). The suffix *-ussiye/a-* is found, according to Rieken 1999: 210f., in *nakkussiye/a-* ‘to be a scapegoat’ and *tekussiye/a-* ‘to show up’, but both cases are not certain, cf. the entry for *tekkusanu-* below and Kloekhorst 2008: 594 for *nakkussiye/a-*. In my opinion, *karūssiya-* goes back to the PIE root *\*kreuH-* ‘to cover’ (LIV: 371, OCS *kryti* ‘to cover’, Lith. *kráuti* ‘to load, pile’) and contains the suffixes *\*-s-* and *\*-ye/o-*. The semantic development remains essentially the same, and the root final laryngeal explains the plene spelling in *karūššiye/a-*.

**katkattinu-** ‘to shake, make shrug’

**3sg. pres. act.** *kat-kat-ti-nu-zi* KBo 3.5 I 33, III 20 MH/NS; KUB 1.13 II 64 MH/NS

**3pl. pres. act.** *kat-kat-ti-nu-an-zi* e.g., KUB 1.11 I 6 MH/MS, KUB 1.13 + KBo 8.48 III 52 MH/NS, KUB 29.40 III 20 MH/MS; *kat-kat-ti-nu-wa-an-zi* KBo 8.52 + I 8, 16 MH/MS, KUB 29.48 rev. 19 MH?MS

**3sg. pret. act.** *kat-kat-ti-nu-ut* KUB 33.106 I 15 NS; *kat-kat-te-nu-ut* KBo 6.29 II 13 Hatt. III

**part. nom. pl. c.** *kat-kat-ti-nu-an-te-es* KUB 1.11 II 45 MH/MS

**impf. 3sg. pres. act.** *kat-kat-ti-nu-uš-ke-ez-zi* KUB 1.13 III 4, 6 MH/NS

The verb *katkattinu-* is almost exclusively used in hippological texts. It is derived from the intransitive verb *katkattiya-* ‘to shake, shrug’. The full reduplication in *katkattiya-* is a widespread phenomenon in Hitite, cf. some examples in HED 4: 135. There is no apparent etymology.

**genusrinu-** ‘to make kneel?’

**3sg. pres. act.** *ge-nu-uš-ri-nu-zi* KBo 31.144 rev. 8<sup>151</sup> MH/MS

The context is not preserved. It is a *nu*-causative to *genussariye/a-* ‘to kneel’, derived from \**genussar* and ultimately from *genu-* ‘knee’.

**kinganu- ?**

**3sg. pres. act.** *ki-in-ga-nu-zi* KBo 19.129 obv. 32 NS

The verb *kink-* and its derivative *kinganu-* are scarcely attested and their meanings are not firmly established. *Kink-* is used several times in a text on glassmaking (KBo 8.65 obv. 7, 11, 16, rev. 5 and KBo 18.201 III 10) and seems to be a technical term (Riemschneider 1974: 268ff., 274). The best preserved context is for *kinganu-* – KBo 19.129 obv. 31-32: [... -]ma 1 GA.KIN.AG TUR <sup>DUG</sup>isnuri kinganuzi ‘... but one small cheese at the dough-bowl he k.’ (HED 4: 182f.) Oettinger (1979: 178f.) suggested the meaning ‘to smother, smear’, while Puhvel (HED 4: 183) believes the verb to belong to metallurgical or glassmaking terminology, along the lines of ‘to spray’ or ‘to flush’. He further considers meaning ‘to attach, fasten’ possible and tentatively adds Lat. *cingō* ‘to gird, equip’, Skt. *kāncate* ‘to bind’ as possible cognates. However, if one assumes a suffix *-k(k)-* (for details see the entries for *hassik(ka)nu-*, *harnink-*, *maliskunu-* and *nink-*), the root \**gem-* ‘to press, grasp’ may also pass here.

<sup>151</sup> In KBo 31.144 it is rev. 8 contra 822/f rev. 7 in Kümmel 1967: 91 and Neu 1968: 159.



If so, Hitt. *kink-* goes back to \**gem-k-*, though this of course remains a mere speculation.

**gīnu-** ‘to open, break open’

**1 sg. pres. act.** *ki-i-nu-mi* KBo 38.237 11 NS

**3sg. pres. act.** *ki-i-nu-zi* KBo 19.146 III 25 MS; *ki-nu-uz-zi* KUB 4.47 obv. 41 NS, KUB 9.22 II 49 MS, KUB 13.9+ III 5, 7, 8 MH/NS; *ki-nu-zi* e.g., KBo 6.26 I 30 OH/NS; *gi-nu-uz-zi* KBo 10.45 III 22 MH/NS

**3pl. pres. act.** *gi-nu-wa-an-zi* e.g., KUB 13.32 obv. 9 Tudh. IV, KUB 17.37 I 4 NH, KUB 25.23 I 3MH/MS, IBoT 1.36 I 7 MH/MS; *ki-nu-an-zi* e. g. KBo 24.45 rev. 11 MS, KUB 15.31 II 10 MH/NS, KUB 29.4 IV 23MS?; *ki-nu-wa-an-zi* e.g., KBo 10.20 I 39 NS, KBo 27.202 8 MH/NS, KUB 15.31 II 9 MH/NS; *ke-e-nu-wa-an-zi* e.g., KUB 25.23 IV 51 NS; *ge-e-nu-an-zi* KBo 2.7 obv. 9, 23, rev. 16 NS

**3sg. pret. act.** *gi-nu-ut* KUB 13.9+ III 11 MH/NS; *ki-nu-ut* KUB 24.7 III 25 NS, KUB 44.56 rev. 11 NS

**2sg. imp. act.** *gi-nu-ut* KBo 21.22 rev. 49 OH/MS

**3sg. imp. act.** *ki-i-nu-ud-du* KUB 30.10 obv. 25 OH/MS; *ki-nu-ud-du* KUB 13.9+ III 6 MH/NS, KUB 30.10 obv. 25 OH/MS

**3sg. pret. midd.** *ki-nu-ut-ta-ti* KBo 49.11 rev. 11 NS

**3sg. imp. midd.** *ki-nu-ut-ta-ru* KBo 2.3 IV 13 MH/NS

**part. acc. sg. c.** *gi-nu-wa-an-ta-an* KUB 35.145 III 8 NH; *gi-nu-wa-an-da<-an>* KUB 44.4+ rev. 31 NH; nom.-acc. sg. neut. *ki-nu-wa-an* KUB 13.2 IV 17 MH/NS

**inf. I** *ki-nu-ma-an-zi* KBo 23.7 I 10 MS?, KBo 24.45 rev. 8 MS, KUB 7.22 8 NS, IBoT 1.7+ IV 41 MH/NS; *ki-nu-wa-an-zi* KBo 27.202 rev. III MH/NS

**verbal noun g.sg.** *gi-nu-ma-a-aš* KUB 41.34 rev. 6 LNS; *ge-e-nu-wa-aš* KUB 17.37 I 5 LNS, KUB 42.105 III 10 Tudh. IV

**impf. 3sg. pres. act.** *gi-nu-uš-kán-zi* KUB 57.79 IV 38 Hatt. III

*Kīnu-* is likely to be a *nu*-causative, though the base verb is not attested. Already in the MS texts and copies, we find the verb spelled with both initial KI/E and GI/E.

This is rather unusual as these signs virtually never alternate in initial position in many other words, s. Kloekhorst 2010: 211ff., who also argued that the sign choice is indicative of the etymology. *Kīnu-* is usually compared to OCS *zijati* ‘yawn’, Lat. *hiscō* ‘to yawn’, Lith. *žióti*, ON *gína* ‘to yawn’ (HED 4: 152f., Kloekhorst 2008: 478). The root is *\*ǵ<sup>h</sup>eh<sub>1</sub>i-* (LIV: 173) or rather *\*ǵ<sup>h</sup>eh<sub>2</sub>-* with an *i*-present *\*ǵ<sup>h</sup>h<sub>2</sub>-ei/i-* (Lubotsky 2011: 107ff.). Apart from secondary infixed verbs in Germanic (see Kroonen 2013: 178), there are Slavic forms with a nasal suffix (OCS *zinōti*) that may point to a common PIE source for Slavic and Anatolian nasal stems (cf. Lubotsky op. cit. 109).

**kis(sa)nu-** ‘to comb’

**impf. 3sg. pres. act.** *ki-iš-nu-u[š-ke-ez-zi]* KBo 24.51 rev. 1 MS?; *ki-iš-ša-nu-uš-ke-ez-zi* KBo 24.51 rev. 3- 10 MS?; *ki-iš-ša-nu-uš-ke-e[z-z]i* KBo 24.52 2 NS  
(for *ki-iš-nu-uz-zi* KBo 17.54+ IV 9’ and *kissanuske[-* KBo 2.36 rev. 3 see *kistanu-*)

All attestations of *kissanu-* come from the Ritual of Zuwi, CTH 412, cf. KBo 24.51 + rev. III

x+1 ]*ki-iš-nu-u[š-ke-ez-zi]*

2 ] [

---

3 [*ha-pal-ki ki-iš*]-*ša-nu-uš-ke-ez-zi* []

4 [*kam-ma-ra-a-a*]*n ki-iš-ša-nu-uš-ke-ez-[zi]*

5 [*ha-ra-r*]*a-a-an ki-iš-ša-nu-uš-ke-ez-[zi]*

6 [*iš-ḥa-a*]*ḥ-ru ki-iš-ša-nu-uš-ke-ez-[zi]*

7 ]*x-za-pa-tar ki-iš-ša-nu-uš-ke-ez-[zi]*

---

8 [*x-*]*x-ga-a-ru ki-iš-ša-nu-uš-ke-ez-zi* []

9 ]*x-tar ki-iš-ša-nu-uš-ke-ez-zi* []

10 *la-ap-pí-ya-a[n ki-iš-ša-nu-uš-ke-ez-zi*

11 *e-eš-ḥar [ki-iš-ša-nu-u]š-ke-ez-zi*

12 *ma-am-ma-ar [ki-iš-]ša-nu-uš-ke-ez-zi*

13 *ḥa-ap-pa-an-zi ki-iš-ša-nu-uš-ke-ez-zi*

14 EGIR-*an ú-wa-an ki-iš-ša-nu-uš-ke-ez-zi*  
 15 *pé-ra-an ga-an-kán ki-iš-ša-nu-uš-ke-ez-zi*  
 (Groddek 2001: 111)

Haas (2003: 730f.) gives several parallels for the use of combs in rituals, so there is no reason to doubt that *kissanu-* in ritual texts means ‘to comb’ just as its base verb *kis-*. Based on the available contexts, there seems to be no semantic difference between *kis-* and *kissanu-*, but note that in almost all cases *kissanu-* has the imperfective suffix *-ske/a-*.

The etymology of *kis-* ‘to comb’ is quite clear: PIE *\*kes-*, CLuw. *kisa-* ‘to comb’, OCS *česati* ‘to comb’, OIr. *cír* ‘comb’, ON *haddr* ‘long hair’, etc., cf. HED 4: 159, Kloekhorst 2008: 481ff.

**kistanu-** ‘to put out, stamp out, exterminate’

**1sg. pret. act.** *ki-iš-ta-nu-mi* KUB 9.25+ KUB 27.67 I 5 MH/NS

**3sg. pres. act.** *ki-iš-<ta->nu-uz-zi* KBo 17.54+ IV 9’<sup>152</sup> MS; *ki-iš-ta-nu-zi* e.g., KBo 15.48 III 6 MH/NS, KUB 25.42 II 12 MH/NS

**1pl. pres. act.** *ki-iš-ta-nu-me-[ni* KBo 10.37 obv. II 6’ OH/NS

**3pl. pres. act.** *ki-iš-ta-nu-an-zi* KBo 4.2 I 12 pre-NH/NS, KUB 43.38 obv. 17 MS; *ki-iš-ta-nu-wa-an-zi* KUB 30.15 obv. 2 MH/NS

**1sg. pret. act.** *ki-iš-ta-nu-nu-un* KUB 17.15 II 14 NS, KUB 24.14 I 21 NH, KUB 9.25+ KUB 27.67 II 7 MH/MS, KUB 35.146 II 2, 5 MS; *ki-iš-ta-<nu->nu-un*<sup>153</sup> KUB 9.25+ KUB 27.67 III 11 MH/MS

**3sg. pret. act.** *ki-iš-ta-nu-ut* KUB 36.12+ II 27 NS

**2pl. imp. act.** *ki-iš-ta-nu-ut-te-en* KBo 4.2 I 16 pre-NH/NS; *ki-iš-ta-nu-ut-tén* KBo 13.58 III 16 MH/NS; *ke-eš-ta-nu-ut-tén* KUB 13.4 III 47 MH/NS

**3pl. imp. act.** *ki-iš-ta-nu-an-du* KBo 44.97 6 NS

**part. n.-acc. sg. neut.** *ki-iš-ta-nu-wa-an* KUB 30.15 obv. 13 MH/NS

**inf. I** *ki-iš-ta-nu-um-ma-an-zi* KUB 19.12 II 10 Murš. II

<sup>152</sup> *ke-eš-ta[* in dupl. Bo 2567c, s. the online edition of CTH 458.1.1 by F. Fuscagni at the HPM website.

<sup>153</sup> The base verb *kist-* has no active forms, and *ki-iš-ta-nu-un* in KUB 9.25+ KUB 27.67 III 11 is attested virtually in the same context as *ki-iš-ta-nu-nu-un* in II 7, so the emendation is justified, sim. CHD Š: 130.

**impf. 3sg. pret. act.** *ki-iš-ta-nu-uš-ke-et* KUB 19.12 II 11 Murš. II

*ki-iš-ta-nu-nu[-* KBo 2.36 rev. 3 NS

*Kistanu-* is derived from *kist-* ‘to perish’, the etymology of which is unclear. Puhvel (HED 4: 168) compares *kist-* to PIE  $^{*}(s)g^{w}esh_{2}$ - ‘to die out, cease’ (LIV: 541, e.g., Gr. aor. ἔσβην, Skt. pres. *jasyata*, OCS *u-gasati*)<sup>154</sup>. Semantically it is attractive, but the lack of a labiovelar in the anlaut of the Hittite word makes this comparison difficult. Kloekhorst (2008: 483) derives it from Hitt. *kast-* ‘hunger’, which has further cognates Toch A *kašt*, B *kest* ‘hunger, famine’ and possibly Toch B *käs-* ‘to come to extinction, go out’ (Adams 2013: 188, 213). If HLuw. *asta-* ‘hunger?’ (Melchert 1987: 185f., cf. also *asti(ya)-* ‘hungry?’ in ACLT) is related, the root-initial consonant was a voiced or voiced aspirated velar in PIE which was lost in Luwian before back vowels as well as before front vowels (contra Melchert 1994: 255).

**kumarnu-** ?

**3pl. pres. act.** *ku-mar-nu-wa-an-zi* KUB 35.146 II 16 MS

CHD P: 210 gives the following attestation:

*Pastarnuwanzi=an kuiēs nu=za* <sup>GIŠ</sup>ḪAŠḪUR [*d*]*andu kumarnuwanzi=an kuiēs nu=za kunkumān* [*d*]*andu* “those who p. him, let them take apple(s), those who *kumarnu-* him, let them take *kunkuma-*”.

The etymology is unclear.

**kuwasnu-** ‘to kiss’

**3pl. pres. act.** *ku-wa-aš-nu-an-zi* KUB 29.7+ obv. 35 MH/MS

The meaning of *kuwasnu-* does not seem to differ from that of *kuwass-* ‘to kiss’, cf. the only existing context KUB 29.7+ obv. 35-37: *namma* [LUGAL MUNUS].LUGAL *gangati*<sup>SAR</sup> *anda taksan kuwasnuanzi nu=za warpanzi*

<sup>154</sup> According to Jasanoff 2008, the root is  $^{*}g^{w}es-$  ‘to extinguish, die out’.

[E.DINGIR<sup>LIM</sup>=ya]=*kán harnuanzi* “Ferner küssen [König (und) Kön]igin die *kankati*-Pflanze gemeinsam. Nun waschen sie sich [und den Tempel] besprengen sie” (Haas 2003: 230, 232). There is no need to translate *kuwasnu-* as “they make kiss” as in HED 4: 312.

The verb *kuwass-* has been long compared to Gr. *κυνέω* ‘to prostrate, kiss ground’. The *a*-vocalism of the root is unusual for a *mi*-conjugation verb, and LIV: 373 reconstructs *\*kwas-* for PIE. Kloekhorst (2008: 506f.) rejects it and suggests *kwass* < *\*kwens-*, *\*kw-en-s-* being an infixed stem along with *\*ku-ne-s-* that we see in Greek. This is, however, unlikely, since the alleged infixed stem *\*kwens-* has an unexpected full grade of the infix in Hittite *\*-en-*, which does not correspond to the *\*-ne-* in Greek. In fact, in all the cases where one may reasonably assume a reflex of the full grade of the infix in Hittite, it goes back to *\*-ne-*<sup>155</sup>. Besides, the geminate *-ss-* in 3pl. sg. *kuwassanzi* does not necessarily indicate the assimilation of intervocalic *\*-ns-*; we find the geminate *-ss-* in the plural of those verbs that certainly did not contain such a cluster, e.g., 3pl. pres. mid. *wessanta* (Hitt. *wess-* ‘to be dressed’, PIE *\*wes-*, Skt. *váste* etc.).

While the genetic relation between *kwass-* and *κυνέω* is likely, it may well be onomatopoetic, cf. HED 4: 312.

**lahlahhinu-** ‘to perturb, make scurry’

**3pl. pret. act.** *la-aḥ-la-aḥ-ḥi-nu-e-<<nu-e>>er* KUB 9.34 III 31 NS

**impf. 3 pl. pret. act.** *la-aḥ-la-aḥ-ḥi-nu-uš-ke-er* KUB 35.146 II 16 MS

This verb is derived from *lahlahhiya-* ‘to be perturbed, scurry’, which has no clear etymology. Puhvel (HED 5: 11f.) states that *lahlahhiya-* and *lahlahinu-* are similar in formation to *katkatiya-* ‘to shrug’ and *katkatinu-* ‘to make shrug’, also used in hippological texts and specifically in Kikkulli. He suggests that it may contain the same root as *lahhanza(n)-*, a migratory waterfowl; the common meaning for both words is some kind of noisy agitation. This connection is, however, hardly valid: Katz

<sup>155</sup> The origin of *-n-* in *hamank-/hamink-* is obscure, see the respective entry in 2.3.

(2004: 199ff.) convincingly argued that *lahhanza(n)-* means ‘duck’ and goes back to the root *\*(s)neh<sub>2</sub>-* ‘to swim’ with the dissimilation of the initial nasal, which we also see in, e.g., *lāman* ‘name’ < PIE *\*h<sub>3</sub>neh<sub>3</sub>mn*, cf. Kloekhorst 2008: 517ff.

**lah(hi)lahheskenu-** ‘to agitate (horses), cause (horses) to run’

**3sg. pres. act.** *la-aḥ-la-aḥ-ḥe-eš-ke-nu-zi* KUB 1.13+ I 16, IV 8 MH/NS; *la-aḥ-ḥi-la-aḥ-ḥe-eš-k[e-nu-zi]* KUB 1.13+ IV 42 MH/NS

It occurs only in Tablet I of Kikkuli: [*n=a*]š *tūriyanzi n=aš* 1 DANNA *pennai* [*la-aḥ-l*]a-aḥ-ḥe-eš-ke-nu-zi-ma-aš ANA 7 IKU<sup>HLA</sup> “They harness them and he drives them (at a moderate pace) one DANNA, but he makes them run over seven IKU's” KUB 1.13 I 15f. It is an unusual formation with inverted suffixation, we would rather expect *lahlahhinuske/a-*, cf. HED 5: 10.

**laknu-** ‘to knock over, fell; pass (a night) sleepless’

**2sg. pres. act.** *la-ak-nu-ši* KUB 26.1 III 41, 43 Tudh. IV

**3sg. pres. act.** *la-ak-nu-uz-zi* KUB 29.9 IV 11 OH/NS; *la-ak-nu-zi* KBo 23.55 I 22 NS;

**3pl. pres. act.** *la-ak-nu-an-zi* KUB 44.32 14 NS, KUB 56.57 II 16 NS; *la-ak-nu-wa-an-zi* KUB 43.55 IV 8 pre-NH/NS; *la-ak-nu-u-wa-an-zi* KUB 39.7 I 14 NS, KUB 39.1 II 13 NS.

**3sg. pret. act.** *la-ak-nu-ut* KBo 11.1 obv. 40 Muw. II, KBo 26.102 4 NS, KUB 5.7 obv. 24 NH, KUB 14.3 IV 9 NH, KUB 16.29 obv. 25 NS

**2sg. imp. act.** *la-ak-nu-ut* KUB 26.1 III 40 Tudh. IV

**impf. 1sg. pres. act.** *la-ak-nu-u[š-ke-]mi* KUB 36.75 III 8 OH/MS

*Laknu-* is mostly attested in NH texts, where it seems to have replaced active forms of *lāk-/lak-* ‘to knock out, lie, recline’ that otherwise remain in use only in the fixed expressions with *lagan hark-* (s. CHD L-N: 20). Thus, in New Hittite, the transitive stem *laknu-* ‘to knock over’ was in opposition to intransitive middle forms of *lāk-* ‘to

lie, recline’, which is the expected semantics for a *nu*-stem. At the same time, already in Middle Hittite we find the meaning ‘to pass (a night) sleepless’, cf. KUB 36.75 III 6 ‘*kinu*’[*n?*] (7) *pittuli*[*yaya*]*s peran* UD<sup>HLA</sup>-*us* GE<sub>6</sub><sup>HL</sup>[-*us*] (8) *laknu*[*ske*]*mi* “N[ow] I go sleepless (all) days (and) nights from angu[ish]” (Schwemer 2011: 19, 22). Its semantic relationship to active ‘to knock out’ or middle ‘to lie, recline’ is not obvious: this usage of *laknu*- is likely to be metaphorical in origin in this expression.

The root etymology of *lāk*- is clear: it belongs to PIE *\*leg<sup>h</sup>*- ‘to lie’ (LIV: 398f.). It is the development of this root in Hittite that remains problematic. Since Eichner (1973: 99<sup>83</sup>) *lāk*- is believed to continue the PIE causative *\*logh-éye-*, which would explain the vocalism of the root. However, the difference in the stem type and conjugation between *lāk*-/ *lak*- and *wasse/a-* ‘to dress’, another alleged reflex of the PIE causative *\*-éye-* formation, is problematic. Schulze-Thulin (2001) argued that PIE causatives and iteratives in R(o)-*éye-* generally shifted to the *hi*-conjugation due to the *o*-grade of the root; the verb *wasse/a-* is an exception, which retained its original stem either due to its high frequency or in order to avoid near-homonymy with *wās<sup>i</sup>*- ‘to buy’. Under this theory, *lāk*- goes back to the causative stem *\*logh-éye-* and shifted to the *hi*-conjugation in the prehistory of Hittite.

**lalukkešnu-** ‘to give light, illuminate’

**3sg. pret. act.** *la-a-lu-ki-iš-nu-ut* KBo 32.14 II 45 MH/MS

**3sg. imp. act.** *la-lu-uk-k[i-iš-nu-ud-du]* KUB 34.77 obv.? 6 NS

**part. n.-acc. sg. neut.** *la-lu-ki-iš-nu-wa-an* KUB 34.77 obv.? 5 NS

**impf. 3sg. imp. act.** *la-lu-uk-ke-eš-nu-uš-ke-ed-du* KBo 18.133 20' NH

Most contexts for this verb are only partially preserved. Still, with a possible exception in KBo 32.14 II 45<sup>156</sup>, *lalukkesnu-* seems to be intransitive, ‘bring light to’, usually with a dative.

<sup>156</sup> Neu (1996: 148f.) analyzed *nu-uš-ši-eš-ta* in KBo 32.14 II 44-45 *na-an gul-aš-ta nu-uš-ši-eš-ta ma-iš-ti an-da la-a-lu-uk-ki-iš-nu-ut* as *n=us=si=sta*, where *-uš-* is acc. pl. of the 3<sup>rd</sup> person enclitic pronoun and translated it as follows: ‘ihn (=den Becher) ziselierte er und er liess sie ihm in (jedem) Detail erstrahlen’. Note that the object in the second clause

Watkins (1985: 252) argues that *lalukess-* cannot be an *-ēss-* fientive from *lalukki-*, as such fientive stems never have derivatives in *-nu-*, and it rather contains a suffix *-s-*, which is seen also in *nana(n)kuss-* ‘to become dark’, cf. also Kloekhorst 2008: 517. However, *lalukess-* is more likely to contain a productive suffix *-ēss-*, which is often found combined with nominal stems, rather than a rare suffix *-s-*, which in all its occurrences is added to verbal stems. Besides, there actually is another example of *-nu-* being added to another suffix in *lah(hi)lahheskenu-* ‘to agitate (horses)’. Such a derivation is clearly quite unusual, but not impossible if one keeps in mind a very high productivity of the suffix *-nu-* in the history of Hittite. Therefore, I believe that *lalukkesnu-* contains a fientive suffix *-ēss-* combined with *-nu-*.

The root etymology is PIE *\*leuk-* ‘become bright’, LIV: 418f.

**lapnu-, lappanu-** ‘to kindle, make glow’

**part. n.-acc. sg. neut.** *la-ap-pa-nu-wa-an* KUB 42.69 obv. 14 NH, Bo 3778 2 NS; *la-ap-pa-nu-an* KUB 32.76 20 NS

**impf. supine** *la-ap-nu-uš-ke-u-wa-an* KUB 17.1 II 8 NH

The participle *lappanu(w)an* is used to refer to gold or a gem and is translated as ‘shining’ or ‘glowing’. The construction *pahhur lapnuskewan dais* ‘“(the god) started to make fire”’ makes clear that this is a transitive verb.

The base verb *lapp-* ‘to catch fire, flash’ has been compared to Gr. λάμπω ‘to shine’, Lith. *lópė* ‘torch’, PIE *\*leh<sub>2</sub>p-*, s. Kloekhorst 2008: 520.

**linganu-** ‘to make someone swear or take an oath’

**1sg pres. act.** *li-in-ga-nu-mi* KBo 16.24 I 11 MH/MS

**3sg. pres. act.** *li-in-ga-nu-zi* KUB 21.42 IV 20 Tudh. IV

**1pl. pres. act.** *li-in-ga-nu-ma-ni* KUB 17.21 IV 12 MH/MS

**3pl. pres. act.** *li-in-qa-nu-an-zi* KUB 5.4 I 52 NH

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differs in number from the object of the first clause. Anyway, we can read it simply as *nu=ssi=sta*, without direct object, which corresponds better to the other passages with *lalukkisnu-*.



**1sg. pret. act.** *li-in-ga-nu-nu-un* KBo 4.4 III 14, 16 Murš. II, KBo 5.9 I 18, 22 Murš. II, KBo 5.12 IV 5 Šupp. I, KBo 15.24 II 2 MH/NS, KBo 16.17 III 28 Murš. II, KUB 14.3 I 66, II 34 Hatt. III, KUB 23.72 obv. 35 MH/MS, KUB 31.55 7 MH/NS; *le-en-ga-nu-nu-un* KUB 26.1 III 47 Tudh. IV

**3sg. pret. act.** *li-in-ga-nu-ut* KBo 4.4 IV 60 Murš. II, KBo 16.27 III 12, IV 32 MH/MS, KUB 14.1 obv. 13, 43, 74 MH/MS; *le-en-ga-nu-ut* KUB 26.1 III 17 Tudh. IV

**1pl. pret. act.** *li-in-ga-nu-me-en* KBo 52.6 2 NS

**3pl. pret. act.** *li-in-qa-nu-e-er* KUB 40.88 IV 10 Hatt. III?

**part. sg. nom. c.** *l[i-i]n-ga-nu-wa-an-za* KBo 5.3 II 36 Šupp. I; *li-in-qa-nu-wa-an-za* KBo 4.14 II 47 Šupp. II; *le-en-qa-nu-an-za* ibid. II 47

**part. pl. nom. c.** *li-in-ga-nu-wa-an-te-eš* KUB 14.8 obv. 17 Murš. II, KUB 14.11 II 2, 41 Murš. II; *li-in!-ga!-nu-an-te-eš* KUB 14.8 obv. 34 Murš. II

**impf. 3pl. pres. act.** *li-in-ga-nu-uš-kán-zi* KUB 21.42 I 10 Tudh. IV

**impf. 3sg. pret. act.** *li-in-ga-nu-uš-ke-et* KUB 6.41 III 53 Murš. II

**impf. 3pl. pret. act.** *li-in-ga-nu-uš-ke-er* KBo 16.25 IV 9 MH/MS, KUB 21.42 I 9 Tudh. IV

*Linganu-* is a causative to *link-* ‘to swear, take an oath’; the usage of the verb can be illustrated with KUB 26.1 III 46-47 *nu=smas* <sup>D</sup>UTU-ŠI *kuit lenganunun* ‘whereas I my majesty have made you swear’ (HED 5: 94). For the etymology, see *link-* in 2.3.

**lukkanu-** ‘to pass the night’ or ‘to make it light’

3pl. pres. act. *lu-uq-qa-nu-wa-an-zi* KUB 46.27 obv. 22 NS, KUB 56.39 IV 22; *lu-ug-ga-nu-wa-an-zi* KUB 58.39 I 12 LNS

*Lukkanu-* is always used with *ispant-* ‘night’ and seems to have replaced the older construction *ispantan laknu-* ‘to spend the night sleepless’ (HED 5: 105, CHD L-N: 76), probably since the original expression was no longer clear to Hittite scribes, and ‘to make (the night) bright’ was considered to be a more appropriate way of expressing the idea of sleeplessness. In KUB 46.27, *ispant-* is in the ablative (GE<sub>6</sub>-za): even

though the context is lost, this syntactic construction seems to indicate that this verb was not always used transitively. For the root etymology see *lalukesnu-*.

### **luššanu-** ?

**3pl. pres. act.** *lu-uš-ša-nu-wa-an-zi* KUB 44.61 rev. 15 NS, *lu-uš-ša-nu-an-zi* IBoT 2.131 rev. 12 Tudh. IV

The meaning of this verb is not known. The contexts are as follows (s. CHD L-N: 87ff. and HED 5: 123): [...] *dai n=at=kan lu-uš-ša-nu-wa-an-zi* (long break) *n=at papparšanzi* ‘He takes [...] They *l.* it ... They sprinkle it’ KUB 44.61 rev. 15-16; *nu* <sup>LÚ.MEŠ</sup>*lapanallie[š]* 1 UDU *hūkanzi* <sup>LÚ</sup>SANGA ŠA DUMU.NITA <sup>LÚ.M</sup>[<sup>ES</sup>*lap*]*analli*<sup>HI.A</sup>-*ša?* [Š]A DUMU.MUNUS<sup>MEŠ</sup> *nu lu-uš-ša-nu-an-zi* ‘Salt-lick guards slaughter one ship. The priest of a son, the salt-lick guards of daughters, they *l.*’ IBoT 2.131 rev. 10-12, cf. CHD L-N: 88. Puhvel assumes that *lussanu-* could be related to Goth. *laus* ‘loose’ (HED 5: 123).

### **maknu-** ‘to make abundant, increase’

**1sg. pret. act.** *ma-ak-nu-nu-[u]n* KUB 31.17 5 OH/NS

**impf. 1sg. pres. act.** *ma-a-ak-nu-uš-ke-mi* KUB 41.20 obv. 6 NH?

**impf. 2sg. imp. act.** *ma-ak-nu-uš-ki* KUB 31.64 IV 8 OH/NS

**impf. 3pl. imp. act.** <sup>1</sup>*ma-ak*<sup>1</sup>-*nu-uš-kán-[du]* KUB 31.100 obv.? 12 pre-NH/MS

The verb *maknu-* is derived from *mekk(i)-* ‘many, numerous’, which has forms both with and without *-i-* in the stem. Hittite *mekki-* (< \**meĝh<sub>2</sub>-i-*) is cognate with Skt. *mahi*, Gr. μέγα, Lat. *magnus*, TochA *māk* ‘many’ etc. (cf. HED 6: 123f.). The *a*-vocalism in *maknu-* and *makess-* ‘become numerous’ is explained as reflecting the zero grade of the root (Kloekhorst 2008: 573).

### **maliskunu-** ‘to make weak, weaken’

**2pl. pres. act.** *ma-li-iš-ku-nu-ut-ta-n[i]* KUB 23.72 rev. 54 MH/MS

**2pl. pret. act. *ma-li-iš-ku-nu-ut-tén* KUB 21.42 II 8 NH**

The verb *maliskunu-* is derived from *malisku-* ‘weak’. According to Puhvel (HED 6: 30), these words are related to *malikk-* ‘to weaken, become weak’, which is attested once in KUB 30.10 rev. 4 *ma-li-ik-ṽku-ṽun*<sup>157</sup>. Puhvel further follows Pisani’s comparison of *malisku-* (\**malik-sku-*) to Gr. μαλακός ‘soft’, βλάξ ‘weak, soft’, ‘stupid’, Goth. *-malks* in *untilamalks* ‘rash, reckless’, Lith. *mùlkis* ‘fool, simpleton’ and reconstructs PIE \**mleh<sub>2</sub>k-*. However, he does not comment on the shape of the suffix *-sku-* in *malisku-*. Rieken (2013: 275f.) prefers to connect *malisku-* immediately with Goth. *-malks* and reconstructs the stem as \**molh<sub>2</sub>-sko-* with the subsequent loss of the laryngeal due to Saussure’s effect. According to her, in Hittite the final \*-o- of the stem was further replaced with *-u-*, which also attracted the accent. Such a derivational history may explain why the stem-final *-u-* is retained before the suffix *-nu-* in *maliskunu-*, even though usually the stem-final *-u-* is replaced by *-nu-*, see further 4.8-9. The final *-ikk-* of *malikk-*, however, remains unexplained; in my opinion, we deal here with the suffix *-k(k)-*, attested also in *hassik-* ‘to satiate’, *hark-* ‘to perish’. See further the entries for *hassikkanu-* above, *harnink-* in 2.2 and Shatskov 2015.

***maninkuwanu-* ‘to bring near?’**

**3sg. pret. act. or 2sg.imper. act. *ma-ni-in-ku-wa-nu-ut* Bo 6238 7 NS**

The fragment Bo 6238 has not yet been published, and this form is cited by Neu without context (s. CHD L-N: 174). It must belong to the same root as *maninkuwan* (adv.) ‘close, near’, *maninkuwant-* ‘short, low, close’. There is another factitive formation from this stem, *maninkuwahh-* ‘draw near’, which is much more frequent.

*Maninkuwa(nt)-* is generally believed to contain a suffix *-inkuwa-* (\*-ink<sup>w</sup>o-), seen also in Lat. *propinquus* ‘near’, *longinquus* ‘far’ and Skt. *pratyāñc-* ‘turned against’.

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<sup>157</sup> For the translation cf. also Schwemer 2015: 4\*.

The root may be that of Arm. *manr* ‘small’, Lat. *mancus* ‘maimed’ or of Lat. *comminus* ‘at close range’, *manus* ‘hand’, see Neu 1980b, HED 6: 57.

**marnu-** ‘to steep, dissolve’

**2sg. pres. act.** *mar-nu-ši* KBo 12.124 III 20 NS

CHD L-N: 295 connects this form with *mernu-* ‘to cause to disappear’, but Puhvel (HED 6: 63) correctly takes it as a derivative from *marr(ya)-* ‘to stew, steep, melt, dissolve’, which is intransitive and mainly middle. He reconstructs the stem as *\*(s)mṛ-ye/o-* and further compares it to OE *smorian* ‘to smother, steep’. If so, the PIE root is *\*(s)mer-* or *\*(s)merh<sub>2</sub>-*.

**marsanu-** ‘to desecrate, falsify’

**3sg. pres. act.** *mar-ša-nu-zi* KUB 7.52 obv. 5 NS, KUB 30.11 rev. 9 MS; *mar-ša-nu-uz-zi* KUB 30.10 rev. 13 MH/MS, KUB 36.75 II 19 OH/MS

**part. nom. sg. com.** *mar-ša-nu-an-za* KUB 16.39 II 12 NH

**part. nom.-acc. sg. neut.** *mar-ša-nu-an* KUB 16.27 obv. 4 NH, KUB 16.39 II 7 NH; *mar-ša-nu-wa-an* KBo 11.1 obv. 35 Muw. II, KUB 16.38 IV 3, KUB 16.39 II 25 NH, KUB 18.27 obv.? 17 NH

**part. nom. pl. c.** *mar-ša-nu-an-te-eš* KUB 16.34 I 2 NH, KUB 16.39 II 2, 19, III 7 NH, *mar-ša-nu-wa-an-te-eš* KUB 16.27 obv. 2 NH, KUB 16.39 II 31 NH

*Marsanu-* is derived either from *marsa-* ‘unholy, treacherous’ or from *marse-* ‘to become corrupted, deceitful’. This is one of few cases where causatives in *-ahh-* and *-nu-* are derived from the same root. *Marsahh-* is attested only as a participle three times in New Hittite texts and once in a Middle Hittite text, KUB 29.8. It is always found as a participle in Neut.N.-Acc. Sg., used either predicatively or with *hark-*. There seems to be no difference in meaning, cf. CHD L-N: 195f., 197f.

The words *marsanu-*, *marsahh-*, *marsant-* ‘flawed, spoiled’ etc. are generally compared to Skt. *mṛṣā-* ‘in vain, falsely’ and ultimately to *\*mers-* ‘to forget’ (LIV: 440f., e.g., Toch. A *märs*, B *marša*, Lith. *mĩr̃sti*), s. Kloekhorst 2008: 562, HED 6: 87.

**mēmanu-**, **mēmiyanu-** ‘to have (someone) say, recite, make (someone) talk’

**3sg. pres. act.** *me-mi-ya-nu-uz-zi* KUB 4.47 II 20 NS

**2pl. pret. act.** *me-ma-nu-ut-te-en* KUB 33.10 obv. 8 OH/MS

**impf. 2sg. pres. act.** *mé-e-ma-nu-uš-ga!-ši* KUB 33.34 obv. 2 OH/NS

*Mēmanu-* is derived from *mēma/i-* ‘to speak’. Formally one would rather expect *\*\*mēminu-*, based on the weak stem *mēmi-*; cf. 4.5-6.

There is no convincing etymology for this verb. A connection to PIE *\*men-* ‘think’ (e.g., HED 6: 139) is formally impossible, since the alleged *\*memnV-* would have yielded *\*\*memmV-* with double *-mm-*, see Kloekhorst 2008: 575.

**mernu-** ‘to make disappear’

**1sg. pret. act.** *me-er-nu-<nu>un* KUB 13.35 I 28 NH

**3sg. imp. act.** *me-er-nu-u[d]-du* Bo 3995 II 10 NS

**part. nom. sg. c.** *mi-ir-nu-wa-an-za* KBo 13.101 rev. 14 NS

This verb is derived from *mer(r)/mar-* ‘to perish, disappear’, which has a secure etymology, PIE *\*mer-* ‘to perish, die’, Ved. *maráte*, Arm. *meṛanim*, OCS *u-mrěťь*, Lat. *morior* etc. (LIV: 439f., HED 6: 150). Note the nasal stem in Armenian which according to Klingenschmitt (1982: 220f.) has replaced the original *nu*-formation.

**miyanu-** ‘to make (branches) fruit-bearing’

**3sg. pres. act.** *mi-ya-nu-zi* KUB 10.27 I 26 NS

**3pl. pres. act.** *mi-ya[-nu-an-zi]* KUB 27.16 I 13 NS

*Miyanu-* is derived from *mai/mi-* ‘to grow’. The connection to Hitt. *miu-* ‘mild’, Lat. *mītis* etc. (Oettinger 1979: 471) is improbable both semantically and formally (s. Kloekhorst 2008: 541). Alternatively, the Hittite verb has been compared to PIE *\*meh<sub>1</sub>-* (LIV *\*meh<sub>1</sub>-* ‘to measure’, e.g., Skt. *ámāsi*, Lat. *metior*) or PIE *\*meh<sub>2</sub>-* ‘big’ (OIr. *mór* ‘big’, Goth. *mais* ‘more’) , see HED 6: 10. The most plausible connection is that of Yakubovich (2010: 483ff.) who compared *mai/mi-* ‘to grow’ to Iranian *\*maH-* ‘to be, become’, Latin *mātūrus* ‘ripe, fully grown’ and Slavic *\*matorъ* ‘old, adult’. While he rejects the further connection of these words to OIr. *mór* ‘big’, Goth. *mais* ‘more’ etc. (ibid 484<sup>8</sup>), Nikolaev (2014: 132) argues that this connection is still possible.

**minu- , mienu-** ‘to make mild, make pleasant, heal’

**2sg. pres. act.** *mi-nu-ši* KUB 48.123 I 10 NH

**1sg. pret. act.** *mi-i-nu-nu-un* KBo 14.105 2 NS

**3pl. pres. act.** *mi-e-nu-u-e-er* KUB 19.22 r. Kol. 3 Murš. II and dupl. *mi-e-nu-er* KBo 14.42 obv. 11 Murš. II

**2sg. imp. act.** *mi-nu-ut* KBo 11.72 III 38 NS

**3sg. imp. act.** *mi-e-nu-ud-du* KUB 17.12 II 14 NS

**3pl. imp. act.** *mi-nu-wa-an-du* KBo 3.21 III 10, 16, 22, 26 OH?/MS; *mi-nu-an-du* KBo 3.21 III 12 OH?/MS

**verbal noun n.-acc. sg.** *mi-i-nu-mar* KBo 17.105 III 32 MH/MS, KUB 15.31 I 55 MH/NS, *mi-nu-mar* e.g., KBo 3.21 III 11, 13, 17, 23, 27 OH/NS, KBo 15.52 V 20 NS, KUB 5.1 I 37, 97 NH, KUB 17.20 III 12 NS, KUB 17.33 IV? 15, 19 NS; *mi<-nu>-mar* KUB 22.4 8 NH, IBoT 1.32 obv. 3, 30 NH, *mi-nu-mar-r=a* KUB 5.1 II 9, III 42 NH, KBo 2.2 I 28 NH, *me-nu-mar-r=a* KUB 16.66 obv. 32 NH

**verbal noun g.sg.** *mi-nu-um-ma-aš* KUB 2.1 III 32 NH

**verbal noun n.-acc. pl.** *mi-nu-mar*<sup>HLA</sup> e.g., KBo 2.6 II 1, IV 6 NH, KBo 14.21 I 46, 59 NH, KUB 5.1 I 104, 107 NH; *mi-nu-mar-ri*<sup>HLA</sup> KUB 5.5 II 3, 14 NH, KUB 16.66 obv. 13 NH, KUB 22.64 II 4 NH, KUB 50.59b 5 NH, KUB 50.89 II 12 NH

**impf.** *mi-i-nu-u[š-]k[e- ... ]* KUB 24.6 obv. 2 MS

Weitenberg (2004: 42f.) argued that forms with *-e-*, i.e. *mi-e-nu-u-e-er* KUB 19.22 rt. col. 3, *mi-e-nu-er* KBo 14.42 obv. 11, *mi-e-nu-ud-du* KUB 17.12 II 14 and adjective *mienu-* are not related to this verb (cf. also Kloekhorst 2008: 579), but he did not provide a new meaning. I tentatively assign these forms to *minu-* ‘to make mild’.

*Minu-* is be derived from *miu-* ‘mild’ (HED 6: 172, Kloekhorst 2008: 594), which was compared by Knobloch (1959: 38) to Lat. *mītis* ‘mild’, OIr. *mōith* ‘soft’, Lith. *mýlas* ‘tender’, PIE *\*meih<sub>1</sub>-*, cf. Schrijver 1991: 240, Kloekhorst 2008: 594.

**nahšarnu-** ‘to make (someone) afraid, command respect’

**2sg. pres. act.** [*n*]*a-aḥ-šar-nu-ši* KBo 45.205 4, 5 MS?

**2sg. pret. act.** *na-aḥ-šar-nu-ut* KUB 19.29 IV 10 Murš. II

**3sg. pret. act.** *na-aḥ-šar-nu-ut* KUB 19.29 IV 7 Murš. II, HKM 75 rev. 13 MS

*na-aḥ-šar-nu-ut*[(*-*) ... ] KBo 18.31 l.e. 5 NH

**part. nom. pl. c.** *na-aḥ-šar-nu-an-te-es* KUB 57.112 rev. 3 NS

**impf. 3pl. pret. act.** *na-aḥ-šar-nu-uš-ke-er* KUB 60.157 III 7 MS

*Nahsarnu-* is likely to be derived from *\*nahsar* ‘fear’, seen also in *nahsaratt-* (for the pattern cf. *eshar* ‘blood’ : *esharnu-* ‘to make red’) and *nahsariya-* ‘to be afraid, have respect for’. Puhvel (HED 7: 9) notes that it could also have been derived from *nahsariya-*, just as *kartim(miya)nu-* is derived from *kartimmiya-* ‘to be angry’. This is unlikely, as *kartimnu-* is not a reliable parallel<sup>158</sup>, and in other cases *-nu-* is added to *-iya-* rather than replaces it, see further 4.6.

The reconstructed noun *\*nahsar* is derived from *nah(h)-* ‘to be(come) afraid, fear’, which is traditionally connected with OIr. *nār* (< *\*nasro-*) ‘shy, modest’, PIE *\*neh<sub>2</sub>(sr-)*, cf. e.g., Kloekhorst 2008: 592.

**ninganu-** ‘to make drink to satisfaction, drench, make someone drunk’

<sup>158</sup> *Kartimnu-* is attested only once in KUB 26.43 obv. 62 and is perhaps to be amended to *kartim<mi>nu-* (see the respective entry), whereas *-i(ya)-* is preserved in all the other forms of this verb.

**3pl. pres. act.** *ni-in-ga-nu-wa-an-zi* KUB 33.5 III 12, KUB 33.7 III? 10, 12  
OH/MS

**1sg. pret. act.** *[n]i-in-ga-nu-nu-u[n]* KBo 15.24 II 2 MH/NS

**1pl. pret. act.** *ni-<sup>1</sup>in-ga<sup>1</sup>-n[u-me?-en?]* KBo 13.101 I 29 NS

**3pl. pret. act.** *ni-in-ga-n[u-er?]* KBo 16.34 7 MS

**2sg. imp. act.** *ni-in-ga-nu-ut* KBo 16.22 obv. 8 NH

**3sg. imp. act.** *ni-in-ga-nu-ud-du* KUB 33.7 III? 14 OH/MS

**impf. 1sg. pres. act.** *ni-in-<sup>1</sup>ga<sup>1</sup>-nu-uš-ke-m[i]* KBo 46.131 rev. 4 NS

**impf. 3sg. pres. act.** *ni-in-ga-nu-uš<sup>1</sup>-ke-ez-<sup>1</sup>zi<sup>1</sup>* KUB 8.66:8+ KUB 33.86 III 7.

*Ninganu-* is derived from *ning-* ‘to quench one’s thirst, get drunk’. Various attempts to connect this verb with Hitt. *nakki-* ‘heavy, important’ or *ninink-* ‘to set in motion’ (see e.g., HED 7: 116f.) have not been successful. Melchert (1994: 165) suggested that *nink-* contains the same *-k(k)-* as *hassik-*, so that the root is *\*nem-* ‘to take’<sup>159</sup>; he pointed to Spanish *tomar* ‘to take’ > ‘to drink’ as the semantic parallel. For the suffix *-k(k)-* see further the entries for *harnink-* ‘to destroy’, *hassikanu-* ‘to quench one’s thirst’ and *maliskunu-* ‘to make weak, weaken’ as well as Shatskov 2015. Kloekhorst (2008: 607) argues that the root *\*nem-* means ‘to allot’ rather than ‘to take’, as seen in Gr. *véμω* ‘to allot, distribute’, cf. also LIV: 453, where the meaning ‘to take’ of Germanic and Baltic forms is explained as stemming from the middle forms. Nevertheless, in my opinion Melchert’s etymology stands, as we sometimes see similar semantic developments in other verbs, e.g., Hitt. *dā-* ‘to take’ and PIE *\*deh<sub>3</sub>-* ‘to give’.

**nu(n)tarnu-** ‘to hurry, hasten, rush into something, act rashly, precipitously’

**2sg. pres. act.** *nu-un-tar-nu-ši* KBo 5.4 obv. 31, 32 LNS, KBo 5.13 IV 15 Murš. II, KBo 19.73a III 23 Muw. II, KUB 6.41 IV 23 Murš. II, KUB 6.44 IV 30 Murš. II, KUB 21.1 III 28 Muw. II, KUB 21.5 III 43 Muw. II, KUB 40.49 rev. 4 NS; *nu-tar-nu-ši* KBo 5.13 IV 34 Murš. II

<sup>159</sup> Or rather *\*nemh<sub>1</sub>-*, see Nikolaev 2011: 84f.



**3sg. pres. act.** *nu-un-tar-nu-zi* KUB 13.4 II 22 MH/NS, KUB 13.5 II 31 MH/NS, KUB 52.4 obv.? 5 NS

**2pl. pres. act.** *nu-un-tar-nu-ut-te-e-ni* KBo 5.4 rev. 20 LNS; *nu-un-tar-nu-ut-te-ni* KBo 5.4 rev. 16 LNS

**1sg. pret. act.** *nu-un-tar-<sup>1</sup>nu<sup>1</sup>-nu-un* KBo 14.20 II 6 Murš. II

**3sg. pret. act.** *nu-un-tar-nu-ut* KBo 18.132 4 MS, KUB 7.58 I 15 LNS, KUB 12.26 II 15, 16 NS, KUB 26.21 III 15 NS, KUB 33.89 3 NS, KUB 33.106 I 34 NS, KUB 36.12 III 15 NS; *nu-un-tar-nu-ut-ta* (Luw. form) KUB 33.106 II 27 NS

**1sg. imp. act.** *nu-un-tar-nu-wa-a[l-lu]* KUB 21.38 obv. 37 NH

**2pl. imp. act.** *nu-un-tar-nu-ut-tén* KBo 26.61 III 22 NS, KUB 33.102 III 13 NS

**3pl. imp. act.** *nu-un-tar-nu-wa-an-du* KUB 45.20 II 15 NS

**verbal subst. nom.sg.** *nu-un-tar-nu-um-mar* KUB 21.38 I 36 NH

Further Anatolian cognates include Hitt. *nuntaras* ‘soon’, *nuntariya-* ‘hasty’, *nuntariya-* ‘to hasten’ or ‘to be ready, at hand’, *nuntariasha-* ‘haste, speed (?)’<sup>160</sup>, CLuw. *nanuntarrit-* ‘the present’, *nanuntarri(ya)-* (adj.) ‘of the present’, *nānuntarriyal(i)-* (adj.) ‘present’.

Surprisingly, *nuntarnu-* is always intransitive (cf. *huntarnu*, *wahnu-*). See, e.g., *nu=wa=šši* EGIR-*an nu-un-tar-nu-ut* IGI-*anda* <sup>d</sup>*Kamrušipaš nu-un-tar-nu-ut* “and he hurried after him (i.e., the client), Kamrušipa hurried toward him, (and they restored him as a son to his mother)” KUB 12.26 II 14-17, or (If the king writes to you, Targašnalli, denying rumors that he acted against you) *ziga lē nu-un-tar-nu-ši...* [*nu ITT*]I <sup>d</sup>UTU-ŠI *idālu lē iyaši mān nu-un-tar-nu-ši=ma nu ITTI* <sup>d</sup>UTU-ŠI *idālu iyaši* “you must not act rashly, ... do nothing evil [again]st His Majesty. If you do act rashly and do evil against His Majesty, (... you transgress the oath to the god)” KBo 5.4 obv. 31-33 (examples from CHD L-N: 474).

*Nuntarnu-* is likely to be derived from *\*nuntar* < PIE *\*nun-tro-* or *\*num-tro-*, though it can also be an adjective *\*nuntara-*<sup>161</sup> < PIE *\*nun-téro-* (for these stems see

<sup>160</sup> For the underlying meaning of this root ‘to be ready’ rather than ‘to haste’ s. Puhvel HED 7: 130.

<sup>161</sup> PIE *\*nun-téro-* should have yielded Hitt. *\*nuntera-*. Oettinger explains *-a-* in *nuntariya-* ‘swift’ as analogical after adv. *nuntaras* ‘promptly, soon’, a fossilized genitive of the noun *\*nuntar-* < *\*nun-tro-*.

Oettinger 2012: 206ff). These words are commonly considered to have the same root as *kinun* ‘now’ and are compared to Lat. *num*, Gr. *vŭv* ‘now’ etc. (s. HED 7: 129f., Kloekhorst 2008: 610).

**pahsanu-, pahhasanu-, pahhasnu-** ‘to protect, take care of, obey’

**1sg. pres. act.** *pa-aḥ-ša-nu-mi* KUB 19.23 l.e. 2 Tudh. IV

**2pl. pres. act.** *pa-aḥ-ḥa-aš-nu-ut-te-ni* KUB 1.16 III 36 OH/NS; *[p]a-aḥ-ša-nu-ut-te-ni* KBo 3.27 obv. 22 OH/NS, KUB 23.68 obv. 19 MH/NS; *pa-aḥ-ša-nu-te-n[i]* KUB 26.10 IV 4 NS

**3pl. pres. act.** *pa-aḥ-ša-nu-wa-an-zi* KUB 9.15 III 8, 14, 25 NH; *pa-aḥ-ḥa[-aš-]ša-nu-an-zi* KBo 16.50 18 MH/MS

**1sg. pret. act.** *pa-aḥ-ša-nu-[n]u-[un]* KBo 3.20 I 8 OH/NS

**2sg. pret. act.** *pa-aḥ-ša-nu-uš* KUB 36.100 rev. 11 OS

**3sg. pret. act.** *pa-aḥ-ḥa-aš-ša-nu-ut* Bronze Tablet II 37 Tudh. IV

**3pl. pret. act.** *pa-aḥ-ša-nu-[er]* KBo 3.53 obv. 3 OH/NS; *pa-aḥ-ḥa-aš-ša-[nu-er]* KUB 19.49 I 18 Murš. II; *PAP-aḥ-ša-nu-er* KBo 3.46 rev.!? 32 OH/NS; *PAP-nu-[er]* KUB 19.49 I 13 Murš. II

**2sg. imp. act.** *pa-aḥ-ša-nu-ut* KBo 16.20 left col. 5; *pa-aḥ-ḥa-aš-ša-nu-ut* KUB 29.1 I 16 OH/NS; *PAP-nu-[ut]* KBo 13.6 1 LNS; *PAP-nu-d(a)?* KUB 48.124 obv.? 5 NS

**3sg. imp. act.** *pa-aḥ-ša-nu-ud-du* KBo 52.26 5 MH/NS, KUB 24.9 III 17 MH/NS; *pa-aḥ-ḥa-aš-nu-ud-du* KBo 11.11 II 2 NS, KUB 13.2 I 27 MH/NS

**2pl. imp. act.** *pa-aḥ-ša-nu-ut-te-en* KBo 7.14 obv. 13 OS or MS, KBo 22.1 obv. 5 OS; *pa-aḥ-ḥa-aš-nu-ut-te-en* KUB 1.16 III 46 OH/NS, *pa-aḥ-ḥa-aš-ša-nu-[ut-te-en]* KBo 12.18 IV 10 OH/NS

**3pl. imp. act.** *pa-aḥ-ḥa-aš-nu-an-du* KBo 21.22 39 OH/MS, *pa-aḥ-ḥa-<aš>-nu-an-du* KUB 13.2 I 8 MH/NS; *PAP-nu-an-du* KBo 4.14 I 18, 20 NH

**part. nom. sg. c.** *pa-aḥ-ša-nu-wa-an-za* KBo 3.57 rev. 9 OH/NS, KBo 10.12 II 38 NH, KBo 13.58 II 4 MH/NS, KUB 2.2 I 6 NH; *pa-aḥ-ḥa-aš-nu-wa-an-za* KBo 4.1 obv. 8 NH, KBo 10.5 II 2 MH/LNS, KUB 13.1 I 35 MS, HKM 17 29 MS, HKM 89 23

MS; *pa-aḥ-ḥa-aš-nu-an-za* HKM 1 12 MS, HKM 6 16, left edge 1 MS, HKM 8 19 MS, HKM 22 6 MS, HKM 30 obv. 6 MS

**part. n.-acc. sg. neut.** *pa-aḥ-ša-nu-wa-an* KBo 3.7 I 6 OH/NS, KBo 5.11 I r. col. 24 MH?/NS, KBo 13.58 III 18 MH/NS, KBo 16.17 III 33 Murš. II; *pa-aḥ-ša-nu-an* KBo 34.34 10 NS; *pa-aḥ-ḥa-aš-nu-wa-an* KBo 5.11 I left col. 24 MH?/NS, KUB 14.16 I 24 Murš. II; *pa-aḥ-ḥa-aš-nu-an* KBo 17.63 rev. 6 MH?/NS, KBo 18.59 obv. 3 MS, KBo 19.42 rev.? 8 NS, KUB 13.20 I 21 MH/NS, KUB 33.68 III 6 OH/MS; *pa-aḥ-ḥa-aš-ša-nu-wa-an* KUB 5.8 II 23 Murš. II, KUB 13.20 I 9 MH/NS; *pa-aḥ-ḥa-aš-ša-nu-a[n]* KBo 50.268 II 19 MS?

**part. nom. pl. c.** *pa-aḥ-ša-nu-wa-an-te-eš* KUB 13.5 III 25 NS, [*pa-aḥ-š*]a-nu-wa-an-te-eš KBo 5.9 II 11 Murš. II; *pa-aḥ-ḥa-aš-nu-wa-an-te-eš*<sub>17</sub> KBo 12.4 III 10 OH/MS?, HKM 7 26 MS; *pa-aḥ-ḥa-aš-nu-an-te-eš* KBo 17.88 III 23 OH?/NS; *pa-aḥ-ḥa-aš-ša-nu-wa-an-te-eš* KUB 13.4 II 74 MH/NS, KUB 23.68 obv. 19 MH/NS; *pa-aḥ-ḥa-aš-ša-nu-an-t[e-eš]* KUB 13.4 III 54 MH/NS

**part. n.-acc. pl. neut.** *pa-aḥ-ša-nu-wa-an-da* KUB 2.2 I 8 NH; *pa-aḥ-ḥa-aš-nu-wa-an-da* KBo 4.1 obv. 9 NH

**verbal noun n.-acc. sg.** *pa-aḥ-ša-nu-mar* KUB 16.77 II 69 NH, KUB 52.37 II 3 NS; PAP-aḥ-<ša->nu-mar KBo 22.264 III 5 NH; PAP-nu-mar KBo 1.44 I 21 NS, KBo 13.69 2 NS, KBo 14.21 I 65!, 77 NH, KUB 5.1 I 4, 31, 98, II 71, III 7, IV 54, 91 NH, KUB 5.3 IV 14 NH, KUB 5.5 II 33 NH, KUB 6.30 5 NS, KUB 16.14 rev. 3 NS, KUB 16.66 obv. 13 NH, KUB 16.81 rev. 11 NH, KUB 22.25 rev. 28 NH, KUB 22.37 obv. 4, 8 NH, KUB 49.79 I 18, 20 NH; PAP-mar KBo 13.76 obv. 17 NH, KUB 6.7 III 3, 7, 25, IV 22 NH, KUB 16.36 6 NH, KUB 18.58 II 3, III 30 NH, KUB 50.108 4 NH;

**verbal noun g.sg.** *pa-aḥ-ḥa-aš-nu-ma-aš* HKM 44 9 MS

**inf. I** *pa-aḥ-ša-nu-um-[m]a-an-zi* KUB 23.68 obv. 20 MH/NS; *pa-aḥ-ḥa-aš-ša-nu-ma-an-zi* KUB 25.37 I 23, 29 NS; PAP-nu-ma-an-zi KUB 26.32 I 3 Šupp. II

**impf. 2sg. pres. act.** PAP-nu-uš-ke-ši KUB 23.1 + 720/v 1.e. 1 Tudh. IV

**impf. 2 sg. imp. act.** PAP-nu-uš-ki KUB 23.1 1.e. 1 Tudh. IV

The verbs *pahsanu-* and *pahs-* are used in similar contexts, sometimes in the same text, cf. the following examples:

KBo 21.22 38-40: *n=at parsanes pāhsanta wātar=sed=a=kan x[...] lūliaz arszī*  
*n=an pahhašnuandu l[a]b[arn]an [LUG]AL-un passiles*

“and leopards are guarding it (the fountain); its water flows out of a basin of [...], and may the pebbles protect him, the Labarna, the king” (CHD P: 8)

The Bronze tablet II 35 <sup>m.D</sup>LAMMA-*as=ma=mu apēdani mehuni pahhassanut*

“(Mein Vater hatte mich zu jener Zeit noch nicht zur Königswürde bestimmt.)  
Aber Kurunta zeigte mir zu jener Zeit (schon seine) Treue.”

and

II 49 *nu=mu* <sup>m.D</sup>LAMMA *pahhasta MAMETE<sup>MEŠ</sup>=mu kue peran (50) lenqan*  
*harta nu=kan ŪL kuitki wahnūt*

“Und Kurunta hielt mir die Treue; die Eide, die er vor mir geschworen hatte,  
(davon) brach er keinen einzigen” (Otten 1988: 16ff.)

HKM 80 obv. 3 *[nu=tt]a DINGIR<sup>MEŠ</sup> TI-an ḫark[andu] (4) [nu=t]ta assuli*  
*paḫšandaru*

“may the gods keep you alive and lovingly protect you”

and

rev. 7 *nu[=z]a uwa[ndu=y]a (8) [KUR-e PAN]I LÚ.KÚR pahhasnuandu [...]*

“(I have sent elders ...) Let them begin to guard the land against the enemy.”  
(Hoffner 2009: 239)

KUB 19.49+ IV (40) *[mān=]ma zik* <sup>m</sup>Man[ap]a-DU-*as kī tuppiyas (41) [INIM<sup>MEŠ</sup>*  
*p]ahhasti*

“[Wenn] du [ab]er, Man[ap]a-Tarḫunta, diese [Wörter] der Tafel [s]chützt”

and

KUB 19.49+ I (12) *nu=tta* LÚ<sup>M</sup>[<sup>EŠ</sup> URU *Karkisa*] (13) *anze[d]az memiyanaz PAP-nu[er]*

“Auf un[se]r Geheiß hin [haben] dich die Leut[e von Karkiša] geschützt”

(G. Wilhelm, Electronic edition of CTH 69 at the HPM website)

The difference between *pahs-* and *pahsanu-* seems to be that *pahsanu-* usually describes specific actions, while *pahs-* is used to describe some general, perhaps continuous action in an unspecified context. If *pahhasnu-* is used to refer to specific actions or situations, the suffix *-nu-* in *pahsanu-* would have to have a singulative/momentary or perhaps telic function and refers to a completed action. That would explain why there are no participles and deverbal nouns made from the stem *pahs-* (cf. CHD P: 3), while they make about 2/3 of all attestations for *pahsanu-*. Since Hittite participles usually denote a state resulted from the action, it is reasonable to assume that they were formed from stems that expressed a completed action. The virtual absence of imperfective forms for both *pahs-* (only *pahhaskeddu* in KUB 39.101 II 12 NS) and *pahsanu-* (twice in KUB 23.1 + 720/v 1.e. 1 (Tudh. IV) squares nicely with the proposed aspectual distinction between inherently imperfective *pahs-* and perfective/singulative *pahsanu-*. See further 4.14-5.

*Pahs-* has a well established etymology: it is connected with Lat. *pāscō* ‘to pasture’ and OCS *pasti* ‘to pasture’, PIE *\*peh<sub>2</sub>(i)*, ‘to guard, pasture’ (LIV: 460).

**paknu-** ‘to defame?’

**3pl. pret. act.** *pa-ak-nu-er* KBo 3.34 II 10 OH/NS, *pa-ak-nu-e-er* KBo 3.36 obv. 17 OH/NS, VBoT 33 9 OH/NS

? *pa-a[k-nu-an-zi?]* KUB 26.87 3 OH?/NS

This verb has no known Hittite or Anatolian cognates. This meaning is also unclear. CHD P: 58 gives the following attestations: (Aškaliya was the lord in Hurma and was a man in every respect) *s=an=asta atti=mi pa-ak-nu-er* (var. *pa-ak-nu[-e-]er*) *s=an arnut s=an* <sup>URU</sup> *Ankui IRDI s=an* <sup>URU</sup> *Ankui=pat* <sup>LÚ</sup> *AGRIG-an iēt sarkuš LÚ-es!*

(text: MEŠ) *ēsta akis=ma=as tepsauwanni* “They defamed him to my father; so he transferred him, brought him to Ankuwa, and made him an <sup>LÚ</sup> AGRIG in Ankuwa; he was a prominent man, but he died in disgrace/obscurity” KBo 3.34 II 9-12 (OH/NS), w. dupl. KBo 3.36 obv. 17-19; [...]x-an *apē pa-ak-nu-e-er* “They defamed [...]” VBoT 33 9 (OH/NS); [...] <sup>m</sup>Kar]ruwan LUGAL-i *pa-a[k-nu-an-zi? ... <sup>m</sup>K]arruwan idalu iya[nzi(?)]* “[They] def[ame Kar]ruwa before the king ... they treat Karuwa badly” KUB 26.87 3-4 (OH?/NS). Etymology is not certain. Puhvel (2010: 212) translates *paknuer* in KBo 3.34 II 10 as “they arraigned? him” and views it as a some kind of legal term, cf. also HED 8: 59. He compares it to Goth. *fāgan*, Lat. *pangō*, Gr. πῆγνυμι ‘to catch’, PIE *\*peh<sub>2</sub>ǵ-* and *\*peh<sub>2</sub>ǵ-* (LIV: 461).

**palhanu-** ‘to broaden?’

**3sg. pret. act.** *pal-ḥa-nu-ut* KUB 23.92 obv. 6 Tudh IV

The context of this verb’s only attestation is broken (see CHD P: 64), so the exact meaning cannot be established. However, it is likely derived from *palhi-* ‘wide’.

*Palhi-* is traditionally connected with Lat. *plānus* ‘wide’ (*pleh<sub>2</sub>-no-*), etc. There is also a Cuneiform Luwian cognate, *palha-* ‘to make flat’. Since the root shape was *\*pleh<sub>2</sub>-* and not *\*pelh<sub>2</sub>-*, *palhi-* can only reflect the zero grade of the root, *\*pl̥h<sub>2</sub>-i-*. The *i*-stem adjective must be an Anatolian development.

**parāsanu-** ?

**1sg. pret. act.** *pa-ra-a-ša-nu-nu-un* KBo 18.55 9 ?

CHD P: 139 gives the following context: [...] *pa-ra-a(-)ša-nu-nu-un* “I ...-ed” KBo 18.55 9.

This form is likely to be related to the adjective (participle?) *parasant-*, used to refer to troops (CHD P: 138f.) and the verb *parasess-* ‘to disperse?’. Kronasser (1966: 404) considered the latter to be derivative in *-ess-* from *pars-* ‘to flee’. The connection of *parāsanu-* to *pars-* is unlikely, the actual *nu*-derivative from this verb is 1.*parsanu-*

‘to make flee, chase away’. CHD P: 139 notes that this form can in fact be *parā sanun*, a *nu*-causative of the verb *šā-* ‘to become angry’ with the preverb *parā*. The verb *šā-* is connected with Lat. *saevus* ‘wild’, OHG *sēr* ‘pain’, s. HEG Š: 686, Kloekhorst 2008: 692f.

**parhanu-** ‘to make gallop’

**3sg. pres. act.** *pár-ḫa-nu-zi* KBo 3.5 I 8, II 56 MH/NS

**impf. 3sg. pres. act.** *pár-ḫa-nu-uš-ke-ez-zi* KBo 3.5 II 6 MH/NS; *pár-aḫ-ḫa-nu-uš-ke-ez-zi* KBo 3.5 I 32 MH/NS

CHD P: 147 states that there is no difference in meaning between *parh-* and *parhanu-*, both are used in the same contexts.

Cf. KBo 3.5 (Kammenhuber 1961: 78ff.)

obv. I 8 [A-NA 7 IKU-*m*] *a pá-r-ḫa-nu-zi* “[*(über)* 7 Feld] lässt er galoppieren”

32 ... I-NA MU-ŠI MU-ŠI-ya 7 IKU *pár-ḫa-nu-uš-ke-ez-zi* “lässt er sie Gespann??? für Gespann??? 7 Feld galoppieren”

II 5 ... *nam-ma-aš tu-u-ri-ya-wa* [?] (6) *tu-u-ri-ya-wa* 7 IKU *pár-ḫa-nu-uš-ke-ez-zi* ‘Ferner lässt er sie Gespann??? Für Gespann??? 7 Feld galoppieren’

II 56 *pár-ḫa-nu-zi-ma-aš* A-NA 8 IKU “galoppieren aber lässt er sie (*über*) 8 Feld.”

Cf. KUB 1.13 + obv. I 5 *pár-aḫ-zi-ma-aš* A-NA 7 IKU<sup>HLA</sup> “galoppieren aber lässt er sie (*über*) 7 Feld”; KBo 3.5 II 59 *pár-aḫ-zi-ma-aš* 8 IKU “galoppieren aber lässt er sie (*über*) 8 Feld”, where *parh-* is used exactly in the same context.

It is indicative that *parhanu-* is used only in the second tablet of the Kikkuli-text, KBo 3.5. This text shows various spellings of the 3sg. pres. act. of *parh-*: *pár-aḫ-zi*, *pár-ḫa-zi*, *pár-ḫa-i*, *pár-ḫa-a-zi*, *pár-aḫ-ḫa-i*, *pár-aḫ-ḫa-a-i*, as well as imperfective forms *parhannai* and *parhiskezzi*. The whole text was composed by Kikkuli, a Hurrian, which may explain a large amount of mistakes with which the second tablet is especially abundant (cf. Kammenhuber 1961: 42). Thus, *parhanu-* is better explained as an occasional form, likely made up by a person with a poor command of Hittite.

Oettinger (1979: 213f.) compared *parh-* with Skt. *bhur-* ‘to hurry’, PIE *\*b<sup>h</sup>erh<sub>2</sub>-* (LIV: 81). CLuw. *para-*, which is often connected with to Hitt. *parh-*, is not related, according to Melchert (2016)<sup>162</sup>.

**parganu-** ‘to raise, make high’

**1sg. pres. act.** *pár-ga-nu-mi* KBo 12.54 6 LNS

**2sg. pres. act.** *pár-ga-nu-ši* KUB 24.7 II 11 NH

**3sg. pres. act.** *pár-ga-nu-zi* KBo 24.67 I 3 MS

**2sg. pret. act.** *pár-qa-nu-ut* KBo 12.70 rev.! 11 NS; *pár-ga-nu-ut* KBo 34.260 5 NS (without context; could also be pret. sg. 3 or imp. sg. 2), *pár-ak-nu-ut* KBo 32.13 II 8 MH/MS

**2sg. imp. act.** *[p]ár-ga-nu-ut* KUB 60.143 rev. 5 NS

**impf.** *pár-ga-nu-uš-kán-‘ta’-[ri]* or *pár-ga-nu-uš-kán-‘du’* KUB 31.91 9 MH/NS

Rieken (1999: 465f.) correctly treated *pár-ga-nu-la*<sup>163</sup> in KUB 12.63 obv. 31 as an allative from a noun *parganul*, cf. parallel formations *daluknula* in KUB 12.63+ obv. 30 and *warsanul*.

The verb *parkanu-* is derived from *parku-* ‘high, tall’ (not from *park(iya)-* ‘to rise, raise’, from which a true causative *parkiyanu-* is formed). On the regularity of the spelling *pár-ga-nu-* with an *-a-* between *park-* and *-nu-* see 4.10.

The etymology is clear – *park-* and its derivatives as well as CLuw. *parraya-* ‘high’ are descendants of PIE *\*bherǵ<sup>h</sup>-* ‘to rise’ (LIV: 78f.). There are direct parallels for both the unextended stem *park-* (Toch. AB *pärk-* ‘to rise’, Arm. *barj-* ‘to raise’) and the adjective *parku-* (Arm. *barjr* ‘high’), see HED 8: 133. In Armenian, there is a nasal present to this root, *baṛnam* that must have been an early Armenian development, s. Klingenschmitt 1982: 107ff.

**parkiyanu-** ‘to raise, make to rise’

<sup>162</sup> He interprets CLuw. *para-* as ‘to carry (off)’ and traces it back to PIE *\*b<sup>h</sup>er-* ‘to carry’.

<sup>163</sup> CHD P: 157 and esp. 158 gives it as *pár-ga-nu-úr!*



**3pl. pres. act.** *pár-ki-ya-nu-wa-an-zi* KUB 8.48 I 20 NH, *pár-ki-y[a]-nu-an-zi* KBo 1.28 rev. 4 NH

This verb is derived from *park(iya)-* ‘to lift (smth.), rise, grow, remove’

According to CHD P: 160 *parkiyanu-* means ‘to make rise from a chair’ and ‘to let rise (from the dead)’, which makes it a causative to intransitive *park(iya)-* ‘to rise’, as opposed to transitive *park(iya)-* ‘to lift, make high’ used with the objects like heads, bird and statues. The etymology is clear, it is PIE *\*b<sup>h</sup>erǵ<sup>h</sup>-* ‘high’, e.g., Toch. B *park-* ‘to arise’, Skt. *bṛhánt-* ‘high’, etc.

The forms *par-ak-ki-ia-aḥ-ḥa*[-...] KBo 18.115 rev. 4 (NH) and *par-ki-ia-aḥ*[-...] KUB 57.123 obv. 7 (NS) may indicate that there was a parallel causative formation *parkiyahh-*, cf. CHD P: 160.

**parkunu-** ‘to cleanse’

**1sg. pres. act.** *pár-ku-nu-mi* KBo 17.61 obv. 18 MH/MS, KUB 1.16 II 54 OH/NS; *pár-ku-nu-um-mi* KBo 3.1 II 43 OH/NS, KBo 14.69 III 6! NH, IBoT 2.116 5 NS; *pár-ku-nu-uḥ-ḥi* KBo 55.42 obv. 12 NS

**2sg. pres. act.** *pár-ku-nu-ši* KBo 3.1 II 44 OH/NS, KUB 56.19 I 21 NS

**3sg. pres. act.** *pár-ku-nu-uz-zi* KBo 2.6 I 34 NH, KBo 4.2 I 45 pre-NH/NS, KBo 6.2 III 33, 35 OS, KBo 6.3 II 55 OH/NS, KUB 30.47 IV 8 NH, KUB 41.11 rev. 34 LNS; *pár-ku-nu-zi* KBo 6.3 III 37, 40, 43 OH/NS, KBo 10.45 II 33, 34, 35 MH/NS, KUB 16.41 III 5 NS, KUB 16.77 III 12, 21, 40 NH, KUB 50.6 II 41 NH; *pár-ku-<nu->uz-zi* KBo 13.109 II 8 MH/NS, Bo 7787 4 NS

**1pl. pres. act.** *pár-ku-nu-um-me-ni* KUB 21.27 II 1 Hatt. III

**3pl. pres. act.** *pár-ku-nu-wa-an-zi* KBo 2.6 I 33 NS, KUB 5.6 II 47 NH, KUB 7.41 I 2 MH/NS, KUB 8.27 rev. 4 NS, KUB 16.77 III 40 NH, KUB 22.70 obv. 85 NH, KUB 27.67 II 28, III 32 MH/NS, KUB 32.35 III 3 NH, KUB 43.58 I 42, 43 MH/MS; *pár-ku-nu-an-zi* KUB 16.39 II 15 NH, KUB 50.6 II 40, III 5, 49 NH

**1sg. pret. act.** *pár-ku-nu-nu-un* KBo 15.25 obv. 8 MH/NS, KBo 26.132 2 ?, KUB 17.10 III 34 OH/MS, KUB 23.45 16 NH, KUB 24.13 II 3 MH/NS

**3sg. pret. act.** *pár-ku-nu-ut* KBo 3.63 I 5 OH/NS, KBo 10.37 I 46 OH/NS, KUB 30.34 IV 5 MH/NS, KUB 39.103 rev. 1 MH/NS

**3pl. pret. act.** *pár-ku-nu-e-er* KUB 12.58 IV 38 NH, KUB 23.79 obv. 5 MH/NS; *pár-ku-nu-er* KBo 11.1 rev. 11 Muw. II

**2sg. imp. act.** *pár-ku-nu-ut* KBo 11.1 obv. 42 Muw. II, KUB 12.58 I 9 NH, KUB 33.5 II 8 OH/MS, KUB 33.9 II 6 NS

**3sg. imp. act.** *pár-ku-nu-ud-du* KBo 4.2 I 46 pre-NH/NS, KBo 10.37 I 47 OH/NS, KBo 10.45 IV 41 MH/NS, KUB 24.9 II 11 MH/NS, KUB 28.82 I 20 OH?/NS, KUB 41.8 II 14 MH/NS, KUB 43.58 I 45 MH/MS, HT 44 obv. 15 NS

**2pl. imp. act.** *pár-ku-nu-ut-tén* KBo 10.45 II 7 MH/NS, KUB 41.8 IV 13 MH/NS

**3pl. imp. act.** *pár-ku-nu-wa-an-du* KBo 19.134 18 NS, KUB 27.67 II 30 MH/NS; *pár-ku-nu-wa-an-`du`?* KUB 31.71 IV 20 NH?; *pár-ku-nu-an-du* KBo 19.134 19, 20 NS

**3sg. pret. med.** *pár-ku-nu-ut-ta-ti* KBo 3.63 I 10 OH/NS; *pár-ku-nu-ta-ti* KBo 3.66 9 pre-NH/NS

**part. sg. nom. c.** *pár-ku-nu-wa-an-za* KUB 5.6 III 32 NH, KUB 12.58 IV 3, 6 NH

**part. sg n.-acc. sg. neut.** *pár-ku-nu-wa-an* KUB 43.58 I 16 MH/MS with dupl. *pár-ku-nu!(copy:-u)-an* KUB 15.42 I 14 MH/NS

**part. sg nom. pl. c.** *pár-ku-nu-wa-an-te-eš* KBo 23.8 8 MS?, KUB 46.39 III 20 NH

**verbal noun nom. sg.** *pár-ku-nu-mar* KBo 1.35 IV 9 NS, KBo 21.22 rev. 47 OH/MS, KUB 27.67 III 2 MH/NS, Bo 3078 II 12 NS, Bo 3617 I 13 NS

**verbal noun g.sg.** *pár-ku-nu-um-ma-aš* KBo 10.45 II 32 MH/NS, KUB 33.24 II 5 OH/NS; *pár-ku-nu-ma-aš* KUB 41.8 III 17 MH/NS, KUB 30.50 rev. 11 NH; *pár-ku-nu-ma[-aš]* KBo 31.143 rev.? 18 MS

**impf. 1sg. pres. act.** [*pár-k*]u-nu-uš-ke-mi(?) KBo 18.24 I 18 NH

**impf. 3sg. pres. act.** *pár-ku-nu-uš-ke-ez-zi* KBo 13.106 I 10, 11 NS, KUB 7.53 III 14 NH, KUB 12.63 obv. 14 OH/MS, KUB 28.82 I 10 OH?/NS, KUB 41.7 I 3, 4, 7

pre-NH/NS, KUB 43.58 I 44 MH/MS, IBoT 2.128 rev. 1 NS

**impf. 3sg. pret. act.** *pár-ku-nu-uš-k[e-et(?)]* KBo 27.68 5 NS

**impf. 3sg. imp. act.** *pár-ku-nu-uš[-ke-e]d-du* KBo 9.146 obv. 44 NH; *pár-ku-nu[-u]š-ke-du* KBo 9.146 obv. 50 NH

**impf. 2pl. imp. act.** *pár-ku-nu-uš-kat-tén* KUB 11.1 IV 22 OH/NS

**impf. 3pl. imp. act.** *pár-ku-nu-uš-kán-d[u]* VBoT 111 III 17 NS

The parent adjective *parkui-* has traditionally been analyzed (along with *dankui-* ‘dark’ and *warhui-* ‘rough’) as a secondary *i*-stem made to an original *u*-stem in the manner of Latin adjectives *tenuis*, *levis* etc.<sup>164</sup>, s. HEG P: 477f., T: 109, Rieken 1999: 258. The Hittite words along with CLuw. *parkuwai-* ‘to purify’ and Pal. *parkui-* ‘to purify’ have been connected with Skt. *bhrāja-* ‘shining, glittering’, Av. *brāza-* ‘glitter’, Goth. *bairhts*, OE *beorht* ‘bright’ (cf. HEG P: 478). Both Kloekhorst (2008: 639) and Puhvel (HED 8: 146) argue that the root of these words in Anatolian ended in a labiovelar. Puhvel nevertheless sticks to the traditional etymology: besides *\*bhrǵ-* he reconstructs a variant *\*b<sup>h</sup>erg<sup>w</sup>-* seen also in Skt. *bhārgas-* ‘radiance, splendor’, which is usually compared to Lat. *fulgur* ‘flash of lightning’, *fulgō* ‘to shine brightly’, PIE *\*b<sup>h</sup>leg-* (EWAia II: 252, de Vaan 2008: 247). This is unlikely since *\*g<sup>w</sup>* is usually reflected as /w/ in Luwian (cf. Melchert 1994: 254)<sup>165</sup>. Maier (2013: 123f.) suggests yet another root variant, *\*b<sup>h</sup>rék<sup>w</sup>-*<sup>166</sup>, attested also in Goth. *brahv-* (*brahva augins* ‘in the twinkling of an eye’). Kloekhorst reconstructs a different root *\*p(e)rk<sup>w</sup>-*, which he compares to OHG *furben* ‘to clean’, with a development *\*k<sup>w</sup>* > *\*p* after resonant following Kortlandt 1997. This seems to be a sound alternative to the traditional etymology. Morphologically both etymologies are possible, as the combination of nominal suffixes *-u-* and *-i-* is assumed independently for *warhui-* ‘rough, leafy’; semantically the connection to OHG *furben* ‘to clean’ is preferable. If so, in this verb the suffix *-nu-* is attached immediately to the stem /park<sup>w</sup>/.

<sup>164</sup> The Latin adjectives in *-ui-* are most likely to have developed from adjectives in *-u-* in the prehistory of Latin, see Balles 2009: 1f.

<sup>165</sup> See the entry for *dankunu-* below for an exception: CLuw. *dakkui-* ‘dark’ < *\*d<sup>h</sup>ng<sup>w</sup>i-*.

<sup>166</sup> Note that the roots containing both a voiceless stop and a voiced aspirated stop were very rare in PIE, see Fortson 2010: 78, Clackson 2007: 68.

**1. parsanu-** ‘to make flee, chase away’

**3sg. pret. act.** *pár-aš-ša-nu-ut* KUB 23.91 6 NS, (?) *pa-ar-ša-nu-ut* KUB 32.121

II 31 NS

**3pl. pret. act.** *pár-ša-nu-er* KBo 19.76 I 22 Murš. II

For the contexts s. CHD P: 186. The verb is derived from *pars-* ‘to flee’. The connection of *pars-* to *parh-* ‘to drive’, implying something like *\*perh<sub>2</sub>-s-*, is unlikely, cf. the development of a similar sequence in *tamass-/tamess-* (cf. Kloekhorst 2008: 640). The alternative is to connect it with Lat. *festināre* ‘to hurry’, see, e.g., Oettinger 1979: 214. Further connections could be We. *brys* ‘haste’, OIr. *bras* ‘quickly’, PIE *b<sup>h</sup>res-*, cf. Kloekhorst 2008: 640, de Vaan 2008: 216. Note that Puhvel (HED 8: 164) argues that *pars-* ‘to flee’ is in fact to be translated ‘to break up, scatter’ and that therefore its forms are to be attributed to *pars-* ‘to break.’

**2. parsanu-** ‘to break up, (w. *arha*) break open’

**3sg. pret. act.** *pár-ša-nu-ut* KUB 33.120 II 36 NS; ?*pa-ar-ša-nu-ut* KUB 32.121

II 31

**impf. 3pl. pres. act.** *pár-aš-ša-nu-uš-kán-zi* KUB 36.12 III 10 NS

While there seems to be no ostensible semantic difference between *parsanu-* and the base verb *pars-* ‘to break’, the objects are different. The usual object of *pars-* is bread, and when it is said about a country, an analogy to bread is implied: “As I crumble this thick bread, so may they crumble the land of the enemy” KUB 40.110 rev. 7-8, s. CHD P: 182 for this quote and 181f. for all the examples. It may also mean ‘to violate (a border)’. On the contrary, the objects of *parsanu-* are stones and the earth, cf. CHD P: 187: “May they call forth the thunderstorms” *kueus=kan* ANA 90 IKU <sup>NA></sup> *peruni[s]* *pár-aš-ša-nu-uš-kán-zi* 8 ME=*ma wassanzi heus* IM<sup>MEŠ</sup>-*us halziyandu* “May they call forth the rains and winds that break up the rocks for ninety

IKU-measures and (that) cover (them) for eight hundred (IKU-measures)” KUB 36.12 III 9-11 (NH); *sarā=aš=kan uit* / [...] *-uš nu taganzipan arha* / [...] *mahhan pa-ar-ša-nu-ut* “(Someone or -thing) came up, [...-ed], and broke the earth open like a [...]” KUB 32.121 II 29-31; NA<sub>4</sub><sup>?</sup> *-an-war-an GIM?-an pár-ša-nu-ut* “He split him like a stone” KUB 33.120 II 36 (tr. by Hoffner 1998: 43).

Since the objects of *pars-* and *parsanu-* are different, their meanings are likely to be slightly different as well: ‘to break’ and ‘to split’ respectively, the latter perhaps having an intensive semantics. Alternatively, *parsnu-* may have a singulative or telic meaning similarly to *pahsnu-*, but this does not seem to fit the context at KUB 36.12 III 9-11.

The form [...] *pár-ši-ya(-?)nu-uš* [KBo 24.88 4] may also belong here.

*Pars-* has often been connected with Gr. *φάρσος* ‘quarter, part’ and further OHG *brestan*, ON *bresta* ‘to burst’, thus PIE *\*b<sup>h</sup>res-*, cf. HEG P: 493, Beekes 2010: 1555, HED 8: 164.

#### **parsantinu- ?**

**2sg. pres. act.** *pár-ša-an-ti-nu-ši* KUB 4.47 rev. 31 NS

CHD P: 186 gives the following context: *nu GEŠTIN passūilass=a wātar sippanti* [*nu=kan? ap*] *ūn antuhsan pár-ša-an-ti-nu-ši nu kissan memai* “He/she libates wine and *passuilaš*-water. You will p. that person. He/she speaks as follows” KUB 4.47 rev. 30-31 (OH/NS). This verb is likely to be related to another hapax, *parsantai-* (*pár-ša-an-ta-iz-zi* KBo 21.20 rev. 13). Further etymology is unclear.

#### **pastarnu- ?,**

**3pl. pres. act.** *pa-aš-tar-nu-wa-an-zi* KUB 35.146 II 14 MS

**3sg. pret. act.** *:pa-aš-ta-ar-nu-wa-at-ta* KUB 5.24 II 47 NS

CHD P: 210f. gives two contexts:

*pa-aš-tar-nu-wa-an-zi=an kuiēs nu=za* <sup>GIŠ</sup> *HAŠHUR* [*d*] *andu kumarnuwanzi=an*

*kuiēs nu=za kunkumān [d]andu* “(Those who make him angry, let them take *harnantassi*-bread), those who *p.* him, let them take apple(s), those who *kumarnu*- him, let them take *kunkuma*-, (those who worried him, let them take [...])” KUB 35.146 II 14-17 (MS)

and,

*nu MUŠEN<sup>HI.A</sup> SIxSÁ-andu pattarpalhis=kan pi.-an SIG<sub>5</sub>-za n=as 2-an arha pait urayannis=ma tarlian :pa-aš-ta-ar-nu-wa-at-ta* KUB 5.24 II 45-47 (NS)

CHD states that the meaning of *pastarnu*- must be close to *kartimmiyahh*- ‘to make angry’ and *lahlahhinuske*- ‘to agitate (horses), cause (the horses) to run’, something like ‘to be mentally or physically upset’. This meaning could fit the second passage, which describes a behavior of a bird, as well. Gloss wedges and the unusual ending of the 3sg. pret. point to a Luwian origin of this verb. Tischler (HEG P: 526) links it to Luw. 3sg. pres. *pastaritta* in KUB 5.24 + KUB 18.57 II 67, found next to *:pa-aš-ta-ar-nu-wa-at-ta* KUB 5.24+ II 47. Further etymology is unclear. Puhvel (HED 8: 193) argues that *pastarnu*- means ‘to spurn, repel’ and is a Luwoid formation made of the prefix *pa*- (Hitt. *pe*-) and *\*ster*- ‘to spread’ (*\*sterh<sub>3</sub>*- in LIV: 599), but this etymology does not look plausible.

**pirnu**- ‘to embezzle’

**1sg. pret. act.** *pí-i[r]-nu-nu-un* KUB 13.35 I 14 NS

CHD P: 313 gives the following context: *nu=wa=kan arha UL kuitki pí-i[r]-nu-nu-un* “(I have never handled any property of the king carelessly and I took nothing for myself. Whatever the queen handed over to me), I embezzled(?) nothing” KUB 13.35 I 14.

HEG P: 618 follows Luraghi 1992: 159, 174 in connecting *pirnu*- to *pir* ‘house’; further etymology is unclear. However, *pirnu*- may well be a misspelling (or a mishearing?) for *mirnu*-, s. CHD P: 313 and HED 9: 91.

**pittinu-, pittenu-** ‘to run off with, carry off quickly’

**3sg. pres. act.** *pít-ti-nu-uz-zi* KBo 6.2 II 10 OS; *pít-ti-nu-zi* KUB 13.5 II 29 pre-NH/NS, KUB 13.6 II 13 pre-NH/NS; *pít-te-nu-uz-zi* KBo 6.3 II 29 OH/NS, KBo 6.5 III 4 OH/NS, KUB 41.8 II 16 pre-NH/NS; *pít-te-nu-zi* KBo 6.3 II 25 OH/NS, KBo 6.5 II 11 OH/NS, KBo 10.45 II 52 pre-NH/NS

**3pl. pres. act.** *pít-ti-nu-an-zi* KBo 17.36 IV 2 OS, KBo 25.56 IV 11 OS

**3sg. pret. act.** *pít-te-nu-ut* KBo 32.14 III 9 MH/MS

**3pl. pret. act.** *pít-te-nu-er* KUB 36.69 11 NS

**3sg. imp. act.** *pít-te-nu-ud-du* KBo 10.45 II 54 MH/NS, KUB 41.8 II 18 MH/NS

**impf.** *pít-te-nu-u[š-...]* KBo 34.269 6 MS?, *pít-te-nu-uš-k[e-...]* KUB 60.4 3 NS

? *pít-ti-nu-u[t]* or *-u[d-du]* KBo 27.18 11 OH/NS; *pít-te-n[u-...]* KUB 16.6: 9 NH

This verb is derived from *piddai-* ‘to run, race’, which is generally intransitive, though it may have one transitive form (s. CHD P: 354). Kloekhorst (2008: 655ff.) gives this verb as *pattai-*. This verb is traditionally connected with Skt. *pátati* ‘to fly’ etc., *\*peth<sub>2</sub>-* s. LIV: 479, s. HEG P: 625, Kloekhorst 2008: 657.

The development of /i/ to /e/ before /n/ is often attested in New Hittite texts and copies, e.g., in *link-* ‘to swear’ and *hink-* ‘to grant’, see 2.4. However, in this verb the *-e-* is found already in Middle Hittite, cf. *pít-ti-nu-uz-zi* KBo 6.2 II 10 OS vs. *pít-te-nu-ut* KBo 32.14 III 9 MH/MS.

**puqqanu-, pugganu-, pukkunu-** ‘to cause (someone) to be hated’

**3sg. pres. act.** *pu-uq-qa-nu-zi* KUB 26.12 III 27 NH

**2pl. pres. act.** *[p]u-ug-ga-nu-ut-te-ni* KUB 13.3 IV 34 MH/NS

**part. n.-acc. sg. neut.** *pu-uq-qa-nu-wa-an* KUB 24.7 I 49 NH

**verbal noun n.-acc.sg.** *pu-uk-ku-nu-mar* KUB 43.72 III 4 NS; gen. *pu-uq-qa-nu-ma-aš* KUB 30.56 III 13 NH

**impf. 2pl. pres. act.** *[pu-]uq-qa-nu-uš-kat-te-ni* KUB 23.68 obv.17 MH/NS, *[pu-uq-qa-nu-uš-k]a-at-te-ni* KUB 23.72 rev. 61 MH/MS

It is derived from a middle verb *pukk-*, *pugga-* ‘to be hateful, repulsive, unpleasant’. No convincing etymology has been found for this verb so far, cf. HEG P: 641f. Puhvel (HED 9: 116) suggests that the Hittite verb reflects *\*b<sup>h</sup>eu-k-*, a variant of the root *\*bheu-g-* ‘to flee’ (Lat. *fugiō* ‘to flee’ etc., s. LIV: 84).

**saku(wa)ntar(r)iyanu-** ‘to neglect’

**3sg. pres. act.** *ša-ku-un-tar-ri-ya-nu-zi* KUB 21.17 III 28 NH

**2pl. pres. act.** *ša-ku-wa-an-ta-ri-ya-nu-te-ni* KUB 13.4 IV 42 MH/NS

**part. nom. pl. c.** [*š*]*a-ku-wa-an-ta-ri-ya-nu-wa-an-te-eš* KUB 18.51 II 17 NH

**impf. 3pl. pres. act.** *IGI-wa-an-ta-ri-nu-uš-kán-zi* KUB 13.2 III 7 MH/NS

**impf. part. nom. pl. c.** *ša-ku-wa-an-ta-ri-ya-nu-uš-kán-te-eš* KUB 22.35 II 5 NH; *ša-ku-wa-an-da-ri-ya-[...]* KUB 49.93 II 11 NH

The structure of the underlying verb, *sakuwantariye/a-* ‘to rest, remain; be neglected’ resembles that of *gimmantariye/a-* ‘to spend a winter’ < *gimmant-* ‘winter’, or *nekumantariye/a-* ‘to undress’ from *nekumant-* ‘naked’. Therefore, it must go back to *\*sakuwant-*, an adjective or participle made from *sakuwa-*, for which there are several entries in CHD. *Sakuwantariye/a-* is often connected with *sakuwa-* ‘eyes’ and further to PIE *sek<sup>w</sup>-* ‘to follow’, cf. Kloekhorst 2008: 704ff., 706f., HEG Š: 748. The semantic development of *sakuwantariye/a-* ‘to remain, be neglected’ from *sakuwa-* ‘eyes’ is, however, questionable. CHD Š: 53 points to a possible connection with *sakuwa-* A, which denotes some kind of punishment, perhaps detention. Further etymology remains unknown.

**sallanu-** ‘to raise, bring up’

**1sg. pres. act.** *šal-la-nu-mi* KBo 20.75 rev. 2 NH

**3sg. pres. act.** *ša-al-la-nu-zi* KUB 14.7 IV 12 NH

**1sg. pret. act.** *šal-la-nu-nu-un* KUB 1.1 IV 11 Hatt. III

**2sg. pret. act.** *ša-al-la-nu-uš* KUB 30.10 obv. 6 OH/MS



**3sg. pret. act.** *šal-la-nu-ut* KBo 12.85 + VBoT 120 II 8 MH/NS, KUB 6.45 III 29 NH, KUB 33.95 IV 18 NS, KUB 36.7b II 19 NS

**3pl. pret. act.** *šal-la-nu-e-er* KUB 33.93+ IV 9 NS

**2sg. imp. act.** *šal-la-nu-ut* KUB 12.21 9 OH/NS; *ša-al-la-nu-ut* KBo 20.31 obv. 17, 19 OS; *šal-la-nu-ut* KBo 32.37 16 MH/MS

**2pl. imp. act.** *ša-al-la-nu-ut-te-en* KUB 1.16 II 44 OH/NS; *šal-la-nu-ut-tén* KUB 34.53 rev. 16 MS

**3pl. pret. med.** *šal-la-nu-wa-an-ta-ti* KUB 8.51 III 11 NS

**part. nom. sg. c.** *šal-la-nu-wa-an-za* KUB 6.45 III 33 NH

**inf. I** *šal-la-nu-ma-an-zi* KUB 31.53 obv. 12, 15 Hatt. III, KUB 31.61 II 5 Hatt. III; *šal-la-nu-um-ma-an-zi* KUB 31.53 obv. 16 Hatt. III, ABoT 1.51 + 585/u obv. 5 Hatt. III, Bronze Tablet I 13 Tudh. IV; *šal-la-nu-u[m?]-ma-an-zi* KUB 60.61 4 LNS

**verbal noun n.-acc. sg.** *šal-la-nu-mar* KBo 39.23 6 MS, KBo 12.118 7 NS, abl.(?) *šal-la-nu-mar-ra-za* KUB 26.32 I 12 NH

**impf. 1sg. pres. act.** *ša-al-la-nu-uš-ke-mi* KBo 17.61 obv. 7 MH/MS

**impf. 2sg. pres. act.** *šal-la-nu-uš-ke-ši* KBo 20.49 8 MS, FHG 1 II 17 OH/NS

**impf. 3sg. pres. act.** *šal-la-nu-uš-ke-ez-zi* KUB 33.98 I 6, 8 NS

**impf. 3pl. pres. act.** *šal-la-nu-uš-kán-zi* KBo 10.47c+e I 8 NS, KUB 8.67 6 MH/NS

**impf. 1sg. pret. act.** *šal-la-nu-uš-ke-nu-un* KUB 8.53 24 NH

**impf. 3sg. pret. act.** *ša-al-la-nu-uš-ke<sub>9</sub>* KBo 22.2 obv. 7 OS; *šal-la-nu-uš-ke-et* KUB 33.117 IV 9 NS, KUB 56.14 IV 2 NH, Bronze Tablet I 13 Tudh. IV

**impf. 3pl. pret. act.** *ša-al-la-nu-uš-ker* KBo 22.2 obv. 5 OS, KUB 29.3 I 9, 10 OS; *šal-la-nu-uš-ke-er* KUB 29.1 I 27 OH/NS

The verb *sallanu-* is derived from *salli-* ‘big, large’, which has been traditionally compared to the adjectives meaning ‘complete, whole’, e.g., Gr. ὅλος, Lat. *salvus*, Osc. *sullus*, Skt. *sárva-*. The geminated *-ll-* is likely to go back to intervocalic *\*-lH-*. For the existence of a laryngeal in this root see Nussbaum 1997: 186ff. However, OIr. *slán* ‘safe, healthy’ may belong to another root, PIE *\*selH-* ‘favourable’, Lat. *sōlor*

‘comfort’, Goth. *sēls* ‘good, kind’, s. Adams, Mallory 1997: 236, Matasović 2009: 345. The quality of the root vowel remains disputed: Melchert (1994: 51) reconstructs *\*selH-i-*, while Kloekhorst (2008: 711) posits *\*solH-i-*. Note that the meaning of CLuw. *salhāti* cannot be established, so it may be not related to *salli-*.

The verb is consistently spelled *šal-la-nu-* or *ša-al-la-nu-*, but never *\*šal-nu-* or *\*ša-al-nu-*. This is hardly a coincidence, and there was likely a connecting vowel *-a-* before *-nu-*, see further 4.10.

**sallanu-** ‘to melt down, vanish’

**3sg. pres. act.** *šal-la-nu-uz-zi* KUB 7.53 II 18 NH, KUB 41.4 II 20 NS

**2pl. imp. act.** [*šal-la-n*]*u-ut-tén* KUB 58.106 III 14 NS; pl. 3 *šal-la-nu-wa-an-du* KUB 59.64 II 12 NS

**impf. 3sg. pres. act.** *šal-la-n[u-u]š-ke-zi* VS NF 12.66 rev. 15 NS

**impf. 2pl. pres. act.** *šal-la-nu-uš-kat-te-e-ni* KUB 17.27 II 15 MH?/NS; [*šal-l*]*a-nu-uš-kat-te-ni* KUB 58.106 III 13 NS

This verb is derived from *salla(i)-<sup>tta</sup>*, *salliya-<sup>tta</sup>*. CHD Š: 82f, 88 translates *salla(i)-*, *salliya-* as ‘to melt down (intr.)’ and *sallanu-* as ‘1. to melt down, 2. to flatten’. Goetze (1938: 78) rejected the meaning ‘to melt down’, because there was no mention of a fire or a pot in the ritual of Tunnawi, and assumed the meanings ‘to become flat’ for *salla(i)-* and *salliya-* and ‘to make flat’ for *sallanu-*. This suggestion has been widely followed, cf., e.g., Oettinger 1979: 249 and HEG Š: 761f. However, in KBo 6.4+ I 47-50 wax is thrown into the fire-pit, where it melts rather than is flattened (*salliyaitta* in line 50).

The meaning ‘to melt, make disappear’ is appropriate in most contexts of *sallanu-*. CHD Š: 89 translates *n=aš harkdu* [... URU-*aš* E]N-*aš* DAM=*SU* DUMU<sup>MEŠ</sup>=*ŠU* [*mahhan arha p*]eššiyami [*nu ape*]l=*a* URU-*an* URU-*aš*=*a* EN-*aš* [DAM=*SU* DUMU<sup>MEŠ</sup>=*ŠU*] QATAMMA *šal-la-nu-wa-an-du* [... ...-]*ti šardiyanni uwandu* (KUB 59.64 II 8-13) as follows: “May he perish. [Just as] I expel the wife (and) children of the lord [of the city ...,] may they (the gods?) similarly flatten his

city and [the wife and children] of the lord of the city. May they [...] come to help”. However, the meaning ‘to make disappear’ fits here no less than ‘to flatten’. The only passage where the interpretation ‘to flatten’ is more likely than ‘to melt down’ or ‘to vanish’ is as follows: *nu=ssan*  $\dot{U}^{\text{HLA}}$  *TI-an* (var. *TI-ann=a*) *IM-an* <sup>NINDA</sup> *āntet parstuhhit dāi n=an šal-la-nu-uz-zi* “He/She places the herbs and living clay with the hot bread (and) the *parstuhhi*, and he/she flattens it” KUB 41.4 II 19-20 (CHD Š: 88). Nevertheless, the meaning ‘to melt down, vanish’ for *sallanu-* is virtually certain, cf. HW<sup>2</sup> I: 282.

The etymology is not clear. It could be an unextended variant *\*sleh<sub>1</sub>-* of the root *\*sleh<sub>1</sub>g-* ‘to end’, Gr. λήγω (for the root s. LIV: 565).

### **samenqanu-**

**3sg. pres. act.** *ša-me-en-qa-nu-ši* KBo 27.60 7 NS

This verb is a hapax, and its meaning is not known. The context is as follows: (“[...] in] Utruna in a dream to *IŠTAR* ... [...]when you] sh[ow] divine guidance)” [...<sup>H</sup>]<sup>I?A</sup> *-us ANA* <sup>d</sup>*UTU-ŠI* *ša-me-en-qa-nu-ši* “and you s. [...]s for His Majesty” KBo 27.60 7, s. CHD Š: 121. According to CHD, a scribal error for *ta<sup>!</sup>menqanusi* cannot be excluded. De Roos (2007: 146f.) also interprets this form as a misspelling for *tamenganu-* ‘to attach’; see the respective entry below.

**samenu- , saminu-** ‘to bypass, let withdraw’

**2sg. pres. act.** *ša-me-nu-ši* KBo 5.3 II 35 Šupp. I

**3sg. pres. act.** *ša-me-nu-uz-zi* KBo 6.26 II 21 OH/NS

**2pl. pres. act.** *ša-me-nu-ut-te-ni* KBo 5.3 IV 11 Šupp. I, *ša-mi-nu-u[t-te]-ni* KBo 5.3 IV 24 Šupp. I

**3pl. pres. act.** *ša-mi-nu-an-zi* KBo 20.33 obv. 15 (2x), 16 OS

**?2sg. pret. act.** *ša-me-nu-uš<sup>167</sup>* KUB 31.112 21 MH/NS

<sup>167</sup> A nominal form according to Pecchioli Daddi 1975: 108f. A verbal form according to CHD Š: 122, Miller 2013: 265<sup>230</sup>.

**3pl. pret. act.** *ša-mi-[nu?-er?]* KBo 3.34 I 4 OH/NS

**part. n.-acc. sg. neut.** *ša-me-nu-an* KBo 1.39 I 5 NH

The verb *samenu-* is derived from *samen-* ‘to pass by, withdraw, disappear’. Oettinger (1976b: 100) connected it to Arm. *manr* ‘little’, Gr. *μάνος* ‘scarce, scanty’, OIr. *menb* ‘little’, PIE *\*(s)menH-(u-)*. He also argued that *saminu-* ‘to burn’ is the same verb as *samenu-* ‘to bypass, make pass by’, suggesting a development ‘to disappear’ > ‘to burn’. In my opinion, it is better to separate these words, see further *saminu-* ‘to burn’ and Kloekhorst 2008: 715f.

In KBo 5.3 IV 24: *nu=z=(s)an p[arā] im[ma] ša-me-nu-u[t-te]-ni* “(if some enemy comes for battle against me, and I write to you, if you do not immediately arrive with help), but you even make yourselves scarce, (it is under the oath)” (s. CHD Š: 122, ‘make yourselves scarce’ is literally ‘make yourselves disappear’), *samenu-* could be intransitive. This is an obscure passage; note that in other instances *samenu-* does not require neither reflexive *-za*, nor *-san*. Alternatively, the initial sequence could be interpreted as *nu=z=an*, as is implied in Beckman’s translation (1999: 33): “allow him to make his escape(?)”.

Note that we would expect a double *-nn-* in *samenu-*, but it is always spelled with a single *-n-*. Oettinger (1976b: 99) argued that *-nu-* was simplified after other *-nu-* verbs, but the single *-n-* may also be compared to a loss of /n/ before /m/ in the forms like *ku-e-mi* ‘to strike, kill’ < \**kuenmi* (Kloekhorst p.c.).

**saminu-** ‘to burn (something), make (something) into smoke/incense’

**3sg. pres. act.** *ša-mi-nu-zi* KBo 21.20 I 26 NH

**3pl. pres. act.** *ša-mi-nu-wa-an-zi* KBo 2.4 IV 26 NH; *ša-me-nu-wa-an-zi* KUB 9.15 III 16 NS, IBoT 1.13 V 13 OH/NS

**impf. 3pl. pres. act.** *ša-am-mi-nu-uš-kán-zi* KUB 33.100 + KUB 36.16 III 11 NS

For a discussion of the semantics of this verb see Güterbock 1946: 73f. and CHD Š: 123. It is often assumed that *saminu-* ‘to burn’ and *samenu-* ‘to bypass, dispense

with’ are the same verb, see, e.g., Oettinger 1976b: 100, HEG Š: 798. Still, I prefer to take these as separate words, since *saminu-* ‘to burn’ is certainly related to *samesiya-* ‘to burn for fumigation’ and likely to *sami-*, a hapax with a tentative meaning ‘smoke’, cf. CHD Š: 118, whereas *samenu-* ‘to bypass, dispense with’ is derived from *samen-* ‘to pass by, withdraw, disappear’. There is no apparent etymology for *saminu-* ‘to burn’, cf. Kloekhorst 2008: 716f.

**samesanu-** ‘to burn something into smoke’

**3pl. pres. act.** *ša-me-ša-nu-an-zi* KBo 44.44 rev. 5 NH

The only preserved context [...]x ŠEM<sup>HLA</sup> *ša-me-ša-nu-an-zi* “they burn aromatics”. This verb is derived from *samesiya-* ‘to burn’ (see CHD Š: 123); the meaning of *samesanu-* seems to be identical to that of the parent verb.

*Samesiya-* is certainly related to *saminu-* ‘to burn’. The interchange in the first syllable *samesiya-/simesiya-* points to an underlying form /smesie-/. It could be a denominative *ye*-verb from a noun with an *-s-* suffix (s. Rieken 1999: 200ff.), in turn derived from *sami-*, preserved also in *saminu-* ‘to burn (something)’.

**sarganu-** ?

**part. nom. sg. c.** *šar-ga-nu-wa-an-za* KUB 52.73 obv. 7 NH

Neither the meaning nor the etymology of *šarganuwanza* are known. It may be a participle from *sarganu-* (which in turn might be derived from *\*sark-* ‘to be good’) or a *want*-adjective form *\*sargan-*, see CHD Š: 266.

**sarnu-** ?

**3sg. pret. act.** *šar-nu-ut* KUB 57.66 III 17 NS

The verb *sarnu-* is used next to with another hapax, *harapasun*. The meanings of both these words are unclear. Due to proximity of *sargamus*, acc. pl. c. of *sarku-* ‘eminent’, *sarnut* may be a scribal error for *\*sarganut*, see CHD Š: 286.

**sasnu-, sassanu-** ‘to make lie down, put to bed, cause to have sexual intercourse’

**2sg. pres. act.** *ša-aš-nu-ši* KUB 48.123 III 20 Hatt. III

**3pl. pres. act.** *ša-aš-nu-an-zi* KBo 17.36 rev. rt. col. 2 OS, KBo 13.120 14 MS;  
*ša-aš-ša-nu-an-zi* KUB 25.37 IV 19 OH/ENS, IBoT 1.29 rev. 51 MH?/MS?; *ša-aš-nu-wa-an-z[i]* IBoT 4.15 obv. 5 NS

**3sg. pret. act.** *ša-aš-nu-ut* KUB 33.118 24 NS

**verbal noun g.sg.** *ša-aš-nu-ma-aš* KBo 57.55 6 NS, KUB 12.5 IV 9 MH/MS

**impf. 2pl. pres. act.** *ša-aš-nu-uš-ga-at-te-ni* KBo 7.28 obv. 24 OH/MS

**impf. 3pl. pres. act.** *ša-aš-nu-uš-kán-zi* KUB 25.37 III 9 OH/ENS; *ša-aš-ša-nu-uš-kán-z[i]* KUB 51.50 III? 13 LNS

*ša-aš-nu-[...]* KBo 9.139 obv. 6 MS

The verb *sas(sa)nu-* is derived from *ses-/sas-* ‘to sleep, rest’, which has a good etymology: PIE *\*ses-* ‘to sleep’, Skt. *sás-*, Av. *hah-* ‘to sleep’. There could be a possible parallel formation with the suffix *-nu-* in Armenian, namely, *y-enowm* ‘stütze sich ab’, cf. LIV: 537<sup>4</sup>.

**daluganu-** ‘to lengthen’,

**2pl. imper. act.** *ta-lu-ga-nu-ut-tén* KUB 12.63+ obv. 25 OH/MS

The verb *daluganu-* is derived from *daluka-*, *daluki-* ‘long’. Originally it was an *i*-stem adjective, s. Kloekhorst 2008: 820. There is also a derivative from *daluganu-*, a noun *daluknul-* (n.) ‘lengthening’, (all.sg. *da-lu-uk-nu-la* KUB 12.63+ obv. 30 (OH/MS)), to which there is a parallel formation *parganula* in l. 31.

The adjective *daluki-* has been compared to Skt. *dīrghá-*, OCS *dlъgъ*, Gr. *δολιχός*, Goth. *laggs* etc., all meaning ‘long’. Gr. *ἐνδεδελεχής* ‘lasting long’ points to a *\*-h<sub>1</sub>-* in the root (*\*delh<sub>1</sub>g<sup>h</sup>-*), cf. HEG T: 62f., Kloekhorst 2008: 820. The Hittite form must go back to *\*d(o)lug<sup>h</sup>i-*; its relation to *zaluknu-* ‘to make long’ and *zalukess-* ‘to be(come) long’ remains unclear.

**tamenganu-** ‘to attach’

**2sg. pres.act.** *ta!-me-en-qa-nu-ši* KBo 27.60 7 NS<sup>168</sup>

**3sg. pres.act.** [*ta*]-*me-in-ga-nu-zi* KBo 35.94 IV 6 NS; *ta-me-in!-ga!-[nu]-u[z-zi]*

VSNF 12.57 IV 27 NS

**impf. 2sg.pres.act.** *t[a-me-i]n-ga-nu-uš-ke-š[i]* KBo 43.291 obv. 2 NS

*ta-me-en-ga-nu[-...]* KUB 13.35 I 26 NH; *ta-me-en-ga-nu-x[-...]* KUB 31.99 22

NS

The verb *tamenganu-* is derived from *tamink-* ‘to attach’, which already contains an infix, see the corresponding entry in 2.3.

For the meaning of *damenganu-* cf. following context:

VSNF 12.57 IV (similar KBo 35.94 IV 6):

26’ [(*nu-uš-ša-an še-er ar*)]*ha* 1<sup>EN</sup> GIŠ<sup>SÚ</sup> *da-a-i na-at IŠ-TU SÍG* [(SA<sub>5</sub>)]

27’ [(*an-da iš-ḫi-ya-an*) A-NA 1 GIŠ<sup>SÍ</sup> EGIR-*an ta-me-in!-ga!-nu-uz-zi*

28’ [(*pé-ra-an*)-*ma ta*]-*ru-up-pa-an ḫa-ma-an-ki!* [ x]

26’ Und sie nimmt dort oben den einen Stock weg; und er ist mit roter Wolle

27’ umwickelt. [] an den (anderen) Strock heftet sie (rote Wolle)? hinten (=unten)? an;

28’ vorn [aber] bindet sie das [Zu]sammengedrehte an.

(Haas-Wegner 1988: 82).

Note that there is no overt object here.

Less clear is KUB 13.35 + KUB 23.80 I 26 LUGAL-*ya=wa=kán memiy[anu]š parā ŪL kuitki ta-me-en-ga-nu?-uš?-k[e?-mi?]* “Und des Königs Worte [werde? ich?] mitnichten ‘betrügerisch umdeuten’ (und derartiges sagte ich nicht)” (Werner 1967: 4, 16). Cf. translation by Hoffner (2003: 58): “I [have] not been misrepresenting(?) the king’s words”, literally “I do not add/attach anything to king’s words”. The meaning ‘to (make) attach’ seems to fit here, even though this interpretation is prompted by the meaning of the base verb. For the etymology see *tamink-* in 2.3.

<sup>168</sup> This form may belong to a different verb, see the entry for *samenqanu-* above.

**dammeshanu-** ‘to make punish’

**1sg. pret. act.** *dam-me-eš-ḥa-nu-nu-un* KBo 4.8 II 13 NH

**impf.** *dam-mi-eš-ḥa-nu-u[š-ke/a-]* KBo 18.109 rev. 4 NS

Hoffner (1983: 188, 190) considers *dammeshanunun* in KBo 4.8 II 13 *ki-i-ya-an 1-an dam-me-eš-ḥa-nu-<nu->un* ‘I punished her with this one thing’ to be an erroneous spelling for *dammeshai-* ‘to damage’. However, *dam-mi-eš-ḥa-nu-u[š- ]* in KBo 18.109 rev. 4 clearly shows that the *nu*-verb exists (cf. HEG T: 80). Hoffner (l.cit.) notes that in KBo 4.8 II 13 *dammeshanu-* governs two objects, *kī* ... *1-an* ‘this one’ and *-an* ‘her’. This makes it different from *dammeshai-*, which is otherwise very close in meaning.

*Dammeshanu-* is derived from *dammeshai-* ‘to damage’, which in turn is derived from *dammesha-* ‘damaging’, derived from *tamass-/tames-* ‘to oppress’. The latter is related to Gr. δάμνημι ‘to tame’, PIE \**dem(h<sub>2</sub>)-* (LIV: 116).

**dannanu-** ‘?’,

**part. nom. sg. c.** *dan-na-nu-wa-an-za* KBo 4.1 obv. 3’ NH with dupl. KUB 2.2 I 1’ NH [*dan-*]*na-nu-wa-an-za*

The only attested form *dannanuwanza* describes a quality of copper. Kronasser 1966: 455 considers it to be derived from \**danna-* ‘empty’, to which also belong *dannarant-* and *dannara-* ‘empty’, cf. HEG T: 97. The root is compared to Skt. *dhānus-*, *dhānvan-* ‘desert’, Gr. θένωπ ‘palm’ (< \*‘empty hand’). Janda (1998: 1f.) reconstructs the root as \**dhen-* ‘hollow’.

**taninu-** ‘to install’, sometimes with gloss-wedges

**1sg.pres.act.** *ta-a-ni-nu-mi* KUB 14.13 IV 3 NH; *ta-ni-nu-mi* KUB 14.13 IV 5, 16 Murš. II, *ta-ni-nu-um-mi*,



**3sg.pres.act.** *da-ni-nu-uz-zi* KUB 25.22 Rand 4 LNS, *ta-ni-nu-iz-zi* KBo 17.94 III 19 NS

**3pl.pres.act.** *ta-ni-nu-wa-an-zi* KBo 2.13 rev. 5 NH, KUB 20.1 III 8 NS; *ta-ni-nu-an-zi* KUB 56.39 obv. I 12 NS, *da-ni-nu-wa-an-zi* IBoT 2.131 rev. 10 Tudh. IV, *ta-ni-nu-wa-an-zi* KUB 56.39 obv. II 7', rev. IV 27' NS; *ta-ni-nu-wa-zi* KBo 2.13 rev. 8 NH

**1sg.pret.act.** *ta-ni-nu-nu-un* KBo 4.4 III 17' Murš. II

**3sg.pret.act.** *ta-ni-nu-ut* KBo 6.29 I 33 NH, *da-ni-nu-ut* KBo 4.4. II 48 Murš. II, Luw. [t]a-n[i]-nu-ut-ta KUB 31.7 rev. 8 NH

**3pl.pret.act.** *ta-ni-nu-er*

**part.** *ta-ni-nu-wa-an-t-*

**verb.noun gen.sg.** *ta-ni-nu-ma-aš* KBo 9.91 l. Rd. 2 NH

**inf. I** *ta-ni-nu-ma-an-zi, ta-ni-nu-um-ma-an-zi*

The parent verb is not attested. Kloekhorst (2008: 827f.) connects *taninu-* with Hitt./CLuw. *dānit-* 'cult object, stele' and reconstructs it as going back to PIE *\*d<sup>h</sup>oh<sub>1</sub>-ni-neu-* and ultimately with PIE *\*d<sup>h</sup>eh<sub>1</sub>-* 'to put'. According to Melchert (1997b: 48ff.), *dānit-* is derived from Luw. *tāna-* 'sanctified', reflecting *\*d<sup>h</sup>eh<sub>1</sub>s-no-*; *\*d<sup>h</sup>eh<sub>1</sub>s-* is an extended variant of the root *\*d<sup>h</sup>eh<sub>1</sub>-* 'to put'. Summing up, *taninu-* goes back to PIE *\*d<sup>h</sup>eh<sub>1</sub>-*, but its derivational history is not clear.

**dankunu-** 'to make black'

**part. nom.-acc. pl. n.** *da-an-ku-nu-wa-a[n-da]* VBoT 111 9 NS, nom.-acc.pl.c. *da-an-ku-nu-wa-an-te-eš* VBoT 111 15 NS

**impf. 3sg. pret.** *da-an-ku-wa-nu-uš-[ke-et]* KBo 47.4 3 MS, *ta-an-ku-nu[-uš-ke/a-]*,

**impf. 3pl. pret. act.** *da-an-ku-nu-uš-k[e-er]* IBoT 3.99 7 NS

For the contexts see Maier 2013: 154f.

*Dankunu-* is derived from *dankui-* ‘dark’. Since Benveniste *dankui-* has been compared to OHG *tunkal*, OFr. *diunk*, ON *døkk* and PIE *\*d<sup>h</sup>eng<sup>w</sup>-*. Hitt. *dankui-* reflects *\*d<sup>h</sup>ng<sup>w</sup>-i-* and is a primary *i*-stem, cf. Kloekhorst 2008: 829, HEG T: 109, Kroonen 2013: 96. Note that *\*g<sup>w</sup>* is preserved in CLuw. *dakkui-* ‘dark’ as a labiovelar<sup>169</sup>; the gemination *-kku-* must have resulted from assimilation of *\*-ang<sup>w</sup>i-<\*-ng<sup>w</sup>i-*.

There is a parallel formation in *-ahh-*, attested once in a NS copy of an earlier text, KBo 15.1 I 28 [*da*]nkuwahhesketta.

### **dankuyan-**

**impf. 3sg. pret.** [*da-an-ku-y*]a-nu-uš-ke-et KUB 41.1 I 18 MH/NS

**impf.** *da-an-ku-ya-nu-uš*[-ke/a-]

The form [*dankuy*]anuškit is a duplicate to *da-an-ku-wa-nu-uš*[-ke-et] KBo 47.4 3. It must have been derived from a secondary stem *dankuya-* made from *dankui-* ‘dark’, cf. Kloekhorst 2008: 829. For the etymology see *dankunu-*.

### **tarranu-** ‘to make strong’?

**3pl. pres. act.** *tar-ra-nu-an-zi* KUB 22.37 II 10 NH

**3sg. pret. act.** *tar-ra-nu-ut* KBo 3.21 II 4 OH?/MS, KBo 3.1 I 7, 17, 27 OH/NS

**3sg. imp. act.** *tar-ra-nu-ud-du* KUB 33.9 III 12 OH/NS

Tischler (HEG T: 149ff.) suggests a meaning ‘to make strong’. In preserved contexts, the object is twice ‘lands’ and once ‘writ, decree’. In KBo 3.1 I 7, the context is “he destroyed lands and he ‘t.-ed’ lands, he made them to the borders of sea”, and in KUB 22.37 rev. 10 it is “kings make peace and they *tarranuanzi* lands for them”. The meaning ‘to enlarge’ also fits here; however, it does not fit KBo 3.21 II 3-4 *tuel=pat*

<sup>169</sup> The retention of the velar element is likely to be conditioned by the preceding nasal, similar to retention of word-internal *\*g<sup>w</sup>* after *\*n* in Latin (Yakubovich, p.c.).

*gulassa tarranut*, which is translated by Puhvel in HED 4: 242 as “he validated your writ”. In general, the translation ‘to make strong’ seems preferable.

This verb seems to be derived from *tarra-* ‘to be able’, which has a good etymology – Skt. *táрати* ‘to overcome’, PIE *\*terh<sub>2</sub>-* (LIV: 633). Note that Hitt. *tar hu-* is a parallel formation from this root, s. Kloekhorst 2008: 964f.

**1. dariyanu-** ‘to make tired?’

**3sg.pres.act.** *da-ri-ya-nu-zi* KUB 17.29 II 11, 12 NS

**?3sg.pret.act.** *ta-ri-ya-nu-ut* KUB 31.67 IV 17 NS (in a broken context)

The etymology of the parent *darai/i-* ‘to become tired’ is not quite clear. There seems to be no connection to *dariya-* ‘to call to gods’. There is no reliable etymology. Semantically a connection to ON *prióta* ‘to fail, become exhausted’, OCS *trudъ* ‘labour, tiredness’, *\*treud-* (cf. Kroonen 2013: 546) is attractive, but the comparison is based on initial *tr-* only.

**2. dariyanu-** ‘to call to gods’

**1sg. pret.act.** *da-ri-ya-nu-nu-un* KUB 7.60 III 13 NS

**2sg. pret. act.** *da-ri-ya-nu-ut* KBo 3.16 III 13 OH/NS

**2sg. imp. act.** *[(da-r)]i-ya-nu-ut* KBo 3.16 III 10 OH/NS

Despite Kloekhorst’s reservation (Kloekhorst 2008: 840f.), the meaning ‘to call to gods’ is plausible in, e.g., *da-ri-ya-nu-nu-un* in KUB 7.60 III 13 *nu-‘wa’* <sup>d</sup>U BE-LÍ-YA *da-ri-ya-nu-nu-un* “I call to the Stormgod, my lord” , cf. Fuscagni’s edition of CTH 423 at the HPM website. See also HEG T: 171 for the passage KBo 3.16 III 9-13, where this verb is used next to *mūgai-* ‘to invoke’.

The base verb *dariya-* in KBo 4.12 obv. 7 also seems to be transitive, s. Kloekhorst 2008: 841f., though the verb has human beings as its object, so the meaning could be ‘to make a plea (to a god) on behalf of’.

This verb is derived from *ter-* ‘to speak’, which has a good etymology: HLuw. *tatarya-* ‘to curse’, Pal. *tarta-* ‘curse’, CLuw. *tatariyamman-* ‘curse’, Lith. *taryti* ‘to say’, PIE *\*ter-* (LIV: 630f.).

**taruppiyanu-** ‘to bring together, collect’

**3sg.pres.act.** *da-ru-up-pí-ya-nu-zi* IBoT 2.129 I 22 NH

The context is as follows: IBoT 2.129 I 21 <sup>LÚ</sup>DAM.GÀR-*ma-za-kán ku-in e-ep-ta nu KÙ.BABBAR* (22) *na-wi<sub>5</sub> da-ru-up-pí-ya-nu-zi* ‘but (as for) the merchant who took it for himself, he has not yet collected the silver’ (Taggar-Cohen 2006: 286, 288)

Besides *taruppiyanu-* there is also a parallel *-ahh-* formation, *taruppiyahh-*: cf. KUB 9.11 I 16 (NS) [(*la-hu-ut-ta-at* G)]U<sub>4</sub>-*un* UDU-*an* LÚ.U<sub>19</sub>[.L]U *ta-ru-up-pí-aḫ-ḫa-aš* (17) [ ...EGIR-*p*]a *ta-ru-up-pí-aḫ-ḫi-iš*<sup>170</sup>. The meaning seems to be similar to that of *taruppiyanu-*.

The active forms of the parent verb *tarupp-* are generally translated as ‘to unite, collect, bring together’, cf. HEG T: 241f., Kloekhorst 2008: 982. The most common object is wool, though it can also be sinews, troops and even lion’s paws. However, the meaning ‘unite, bring together’ is not always applicable, cf. IBoT 2.96 V 10 GAL DUMU<sup>MEŠ</sup>É.GAL 1-ŠU *tarupzi* which is translated by Melchert as “the chief of the palace officials twists it once” (Melchert 2001: 405). There also some middle forms that usually mean ‘to come to an end’. The difference between active forms of *tarupp-* and *taruppiyanu-* is slight if any.

There has been no convincing etymology so far. For forms with *-l-* instead of *-r-* (*talupp-*) s. Kloekhorst 2008: 983f.

**dassanu-** ‘to make strong’

**3sg. pret. act.** ]x<+>*ta-aš-ša-nu-ut* ? KBo 13.52 I 7 OS?

**3sg. pret. act.** *da-aš-ša-nu-ut* KUB 33.102 obv. II 6 NS

<sup>170</sup> *ta-ru-up-pa-aḫ-ḫi-iš* in the dupl. Bo 3947 13’ NS.

**1sg. imp. med.** *ta-aš-ša-nu-uḫ-ḫu-ut=wa=(a)z* KUB 23.77 + obv. 35 MH/NS

**part. n.-acc. sg. neut.** *ta-aš-nu-wa-an* KUB 14.2 I 16 NS

**impf. 3pl. pret. act.** *ta-aš-nu-uš-ke-er* KUB 29.1 obv. 27 OH/NS

The verb *dassanu-* may be derived from an unattested stem *\*dass-* (so Weitenberg 1984: 146), but more likely is the derivation from *dassu-* ‘strong’ with a deletion of the *-u-*, see further 4.9. For Anatolian cognates s. HEG T: 260f. Hitt. *dassu-* has been compared either to Gr. *δαρύς* ‘hairy’ and Lat. *densus* ‘dense’ or to Skt. *dāmsas-* ‘miraculous power’. While possible formally, semantically both etymologies are not compelling.

**tekussanu-** ‘to reveal, point out’

**1sg. pres. act.** *te-ek-ku-uš-ša<-nu>-mi* KBo 5.3 I 10 Šupp. I/NS

**2sg. pres. act.** *te-ek-ku-uš-ša-nu-ši* KBo 5.3 I 29 Šupp. I/NS

**1pl. pres. act.** *ti-ik-ku-uš-nu-um-me-e-ni* KUB 31.44 II 5 MH/NS, *te-ek-ku-uš-nu-ma-ni* KUB 31.42 II 8 MH/NS

**1sg. pret. act.** *te-ek-ku-uš-ša-nu-nu-un* KBo 5.3+ I 5 Šupp. I/NS

**3sg. pret. act.** *te-ek-ku-uš-nu-ut* KUB 14.20 I 19 NS; *te-ek-ku-uš-ša-nu-ut* KBo 3.5+ II 16 MH/NS; *te-ek-ku-<<nu->>-uš-š[a-nu-ut]* KBo 16.1 III 17 NS; *te-ek-ku-uš[-ša-nu-ut]* KUB 1.1+ IV 19 Hatt. III; *te-ek!-ku-uš!-nu!-ut* (text: *te-et-ku-nu-uš-ut*) KBo 4.4 II 77 NS; *ti-ik-ku-uš-nu-ut* KUB 14.15 II 2 NS

**3pl. pret. act.** *te-ek-ku-uš-nu-er* KBo 2.5 IV 15 NS

**2sg. imp. act.** *te-ek-ku-uš-nu-ut* KUB 7.8 II 21, III 10 MH/NS

**3sg. imp. act.** *te-ek-ku-uš-ša-nu-ud-du* KUB 13.20 I 5’ MH/NS

**part. nom. sg. c.** *ti-ik-ku-uš-ša-nu-an-za* KUB 8.75 IV 9 NS

**part. n.-acc. sg. neut.** *te-ek-ku-uš-ša-nu-an* KUB 8.78+ VI 13 NS

**impf. 3sg. pres. act.** *te-ek-ku-uš-nu-uš-ke-ez-zi* KUB 7.5 IV 8 MH/NS

**impf. 3pl. imp. act.** *te-ek-ku-uš-nu-uš-kán-du* KUB 13.2 II 18 MH/NS

*te-ek-ku-uš-nu-an[(-)..]* KUB 19.29 I 11 NS

Approximately half of the attestations come from CTH 61, Annals of Mursili II. In KBo 5.3 *tekkusnunun* I 5 is used in the same context as the parent *tekussami* I 10, cf.: (4) *nu-ut-ták-kán* <sup>URU</sup>*Ha-at-tu-ši* A-NA LÚ<sup>MEŠ</sup> <sup>URU</sup>*Ha-ya-ša-ya aš-šu-li iš-tar-na* (5) *te-ek-ku-ša-nu-un* “In Hattusa I have distinguished you among the men of Hayasa” and (10) *na-an-kán iš-tar-na te-ek-ku-uš-ša-mi* “I have distinguished you” (transl. by Beckman 1996: 23). However, in all the other remaining contexts *tekussiye/a-* is intransitive, cf. HKM 46 obv. (12) *nu-u-ši* EGIR-an (13) *na-ú-i ku-it-ki* (14) *te-ek-ku-uš-ši-ya-iz-zi* ‘no trace of him has shown up yet.’ (Hoffner 2009: 174), s. further HEG T: 303. Therefore, *tekkuššami* in KBo 5.3 I 10 is better to be emended to *te-ek-ku-uš-ša<-nu>-mi*.

Since Götze *tekkussiye/a-* has been compared to Av. *daxš-* ‘to teach’, implying PIE *\*dek<sup>w</sup>s-* (LIV: 112). This is followed by, e.g., HEG T: 304 and Kloekhorst 2008: 865. Note that the origin of Av. *daxš-* is disputed, see Cheung 2007: 70f. Alternatively, Rieken (1999: 210f.) assumes that *tekkussiye/a-* is related to Hitt. *tekri-*, which she interprets as ‘mark’, and argues that *tekkussiye/a-* cannot have a labiovelar since the labial element is missing in *tekri-*. She compares *tekkussiye/a-* and *tekri-* to Gr. τέκμαρ ‘sign’. However, *tekri-* rather means ‘slander’, ‘insult’ (see recently Alexandrov, Sideltsev 2009: 63ff.) and therefore is not related. As for τέκμαρ, it is generally connected with Skt. *cáṣṭe*, *cákṣate* ‘to see’, PIE *\*k<sup>w</sup>ek<sup>h</sup>-* ‘to see, appear’ (e.g., Beekes 2010: 1459, Nussbaum 2014). Summing up, the connection with Av. *daxš-* seems preferable.

*Tekus(sa)nu-* and *tekkussēss-* ‘to become visible’ seem to derive from the stem *tekkuss-*, which is not directly attested (on *tekkuššami* in KBo 5.3 I 10 see above).

**tepnu-** ‘to diminish, humiliate’

**1sg.pres.act.** *te-ep-nu-um-mi* KUB 21.37 obv. 21 NH

**3sg.pres.act.** *te-ep-nu-zi* the Bronze tablet III 72, IV 18 NH; *te-ep-nu-uz-zi* KBo 4.10 rev. 13 NH

**3pl.pres.act.** *te-ep-nu-wa-an-zi* KBo 3.3 II 27 NH

**1sg.pret.act.** *te-ep-nu-nu-un*

**3sg.pret.act.** *te-ep-nu-ut* KBo 3.6+ III 26 Hatt. III, KBo 4.8 III 14 Murš. II, KUB 21.19 I 22 Hatt. III

**1pl. pret. act.** *te-ep-nu-mi-n=a-an* KUB 14.4. I 6 Murš. II

**3pl.pret.act.** *te-ep-nu-er* KUB 4.1 I 18 MH/NS, KUB 5.6+ III 69 NH

**?3sg.pret.med.** *te-ep-nu-ut-ta=ma*<sup>171</sup> KUB 14.4 III 22 Murš. II

**part. nom.-acc.sg. neut.** *te-pa-nu-wa-an* KUB 16.16 rev. 2 Tudh. IV

**verbal noun n.-acc. sg.** *te-ep-nu-mar* KBo 5.6 IV 1 NH; *te-ep-nu-um-mar* IBoT 1.33 91 NH

**inf.I** *te-ep-nu-ma-an-zi* KUB 21.15 I 14 Hatt. III; *te-ep-nu-um-ma-an-zi* KUB 21.37 obv. 20 Hatt. III, the Bronze tablet II 77, III 27 Tudh. IV; *te-ep-nu-wa-an-zi* KUB 17.21 IV 18 MH/MS

**impf. 2sg.pres.act.** *te-ep-nu-uš-ke-ši* KUB 24.4 + KUB 30.12 II 9 MS

**impf. 2pl.pres.act.** [*te-*]*ep-nu-uš-ke-te-ni* KUB 23.72+ obv. 62 MH/MS

**impf. 3sg.pret.act.** *te-ep-nu-uš-ke-et* KBo 3.4 II 13 Murš. II

**impf. 3pl.pret.act.** *te-ep-nu-uš-ker* KBo 3.4 I 24 Murš. II

*Tepnu-* is related to *tēpu-* ‘small’. For a survey of contexts and semantic nuances of using *tepnu-* with and without *-za* s. Hoffner 1977: 154ff.

There seem to be immediate cognates in Vedic for both *tēpu-* and *tepnu-*, *ádbhuta-* ‘unerring’ besides *dabhra-* ‘little’ and *dabhnóti* ‘deceives’ respectively, so both formations are believed to be of PIE age. The root is *\*d<sup>h</sup>eb<sup>h</sup>-* ‘to diminish’, s. LIV: 132. Surprisingly, *tepnu-* is mostly found in NH texts as well as in a few Middle Hittite texts. It is to my knowledge missing in OS and OH texts. Given the very high productivity of this verbal class *tepnu-* is likely to be a Hittite innovation rather than a PIE formation, which could also explain the full grade of the root. The formal correspondence between Hitt. *tepnu-* and Skt. *dabhnóti* ‘deceives, hurts’ (< *\*d<sup>h</sup>b<sup>h</sup>néuti*) is then a coincidence; note that the meaning of *tepnu-* ‘to diminish’ is based on *tēpu-* and is quite distant from ‘to deceive, hurt’ of the Sanskrit verb.

<sup>171</sup> Miller (2014: 521<sup>25</sup>) notes that this form is “Likely yet another scribal error”.

Koch (1980) suggested that *tepnu-* was derived from *tēpu-* with an insertion of *-n-* into the stem (contra Weitenberg 1984: 148f.). In my opinion, the adjectival suffix *-u-* was rather replaced with the suffix *-nu-* (a Caland system derivation); for the details see 4.9 and 4.13 below.

A parallel formation *tepawahh-* is attested in KUB 14.3 I 13 NH, KBo 13.74 6, 7 NS<sup>172</sup>.

**tepsanu-** ‘to make *tepsu-*’

**2sg.pres.act.** *te-ep-ša-nu-ši* KUB 24.3 II 53 MH/NS

? *te-ep-ša-[nu-zi]* KBo 3.1+ III 70 OH/NS

The meaning of *tepsu-* and its derivatives is elusive. Traditionally it has been translated as ‘dry’. Note that *tepšanuši* (KUB 24.3 ii 53) has *tepnuškeši* in dupl. KUB 24.4 + II 9, so it must mean ‘to diminish’ in that passage. Kloekhorst (2008: 866ff.) argues that *tepsu-* means ‘something little; some kind of (by-product of) grain (comparable to malt) that does not yield any plant’. Etymologically it may belong to the same root as *tēpu-* ‘small’ and contain a suffix *-su-*, seen also in *genzu-* ‘abdomen’ (cf. Kronasser 1966: 252).

**ti(n)nu-** ‘to paralyze’

**3sg.pres. act.** *ti-nu-zi* VBoT 58 I 27 OH/NS, *ti-in-nu-zi* VBoT 58 I 11, 13, 15 OH/NS

**3sg. pret. act.** *ti-nu-ut* VBoT 58 I 8 OH/NS

**3sg. imp. act.** *ti-in-nu-ut* VBoT 58 I 20 OH/NS

<sup>172</sup> KUB 14.3 (CTH 181, Tawagalawa letter) I 12 *nu=šši=za EGIR-an* (13) *ŪL memaš n=an ANA PANI KUR.KUR<sup>MEŠ</sup> te-pa-wa-[a]h-ta’* ‘(The crown prince held him by the hand), but he said “no” to him and demeaned him in the presence of the lands.’ (Hoffner 2009: 302. For uses of *tepnu-* in similar contexts see Hoffner 2009: 390, note 267. The context of *tepawah(h)-* in KBo 13.74 is unfortunately too fragmentary.



This verb is attested only in VBoT 58 (OH/NS). The forms *ti-nu-ut* in line I 8 and *ti-nu-zi* in line I 27 may alternatively be read as *TI-nu-ut* and *TI-nu-zi* and, which would make them forms of *huisnu-* ‘to rescue, keep alive, spare’.

In the lines I 27-28 [*itt*]en=wa <sup>D</sup>LAMMA-an *halzisten apunn=a=wa TI/ti-nuzi* (28) [*Ū*]L=war=as *gimras DUMU-as* “[Ge]ht (und) ruft die Schutzgottheit! Wird sie auch sie lähmen? Ist sie [nic]ht ein Kind des Feldes?”, trans. by Rieken at the HPM website) the phrase *apunn=a=wa TI/ti-nuzi* may be translated as either “he will spare him” or “will he paralyze him?”

However, in the line 8 the meaning of *ti-nu-ut* must be ‘to paralyze’ and definitely not ‘to spare, rescue’, since the form is used parallel to *hatnut* ‘dried up (waters)’:

(7) [*twē*]ll[=a] DUMU<sup>MEŠ</sup>-KA *kuin sagain iyanzi ha[hhimas]* (8) *utnē hūman ti-nu-ut widār hatnut* (9) *hahhimas GAL-is*

“[Und] welches Wunder vollbringen [dei]ne Söhne?” St[arre] lähmte das ganze Land. Die Gewässer ließ sie vertrocknen. Die Starre (ist) mächtig!” (trans. by Rieken at the HPM website).

So at least *ti-nu-ut* in the line I 8 of VBoT 58 belongs to *tinnu-*. I can only assume a simplified spelling of a geminate here even though the spelling of *-nn-* is usually very consistent, and I do not know of any simplified spelling for, e.g., *zinni-* or *sunna-*.

Götze (1930: 403<sup>3</sup>) suggested that *tinnu-* may be a causative from *tiya-* ‘to step, place oneself’ (PIE *\*steh<sub>2</sub>-*, cf. HEG T: 375). However, geminated *-nn-* here would be difficult to explain, cf. 5.9 with note 177. The syncopation of *-iya-* to *-i-* (for examples see Melchert 1984: 58) is also unlikely here, as there are several examples of *nu-*verbs derived without the loss *-iya-*: *edriyanu-* ‘to feed’ from *edriya-* ‘id.’, *kartimmiyanu-* ‘to make angry’ < *kartimmiya-* ‘to become angry’, *karūssiyānu-* ‘to silence’ from *karūssiya-* ‘to be quiet’, *parkiyanu-* ‘to make to rise’ from *parkiya-* ‘to rise’. A possible solution could be deriving *tinnu-* from *\*tit-nu-*, where *\*tit-* would be a reduplicated stem to the root *\*steh<sub>2</sub>-* ‘to step’. The formal and semantic difference between *tinnu-* and *tittanu-* ‘to cause to stand, erect’, which, according to Melchert forthc. b., is derived from *tiye/a-* ‘to stand’ and thus also from *\*steh<sub>2</sub>-* (see the entry for *tittanu-* below) could be explained if one assumes that *tinnu-* is an older and *tittanu-* is

a more recent formation. Alternatively, one may disagree with Melchert and derive *tittanu-* exclusively from *titta-* ‘to place’ and ultimately from *dai-* ‘to place’.

**tittanu-** ‘to install’

**1sg.pres.act.** *ti-it-ta-nu-mi* e.g., KUB 1.1.+ IV 15 NH; *ti-it-ta-nu-um-me* KUB 16.31 IV 18 LNS

**3sg.pres.act.** *ti-it-ta-nu-uz-zi* KBo 31.103 obv. 4 OS?, *ti-it-ta-nu-zi*,

**1pl.pres.act.** *ti-it[(-nu-um-me-e-ni)]* KUB 12.50 + KUB 17.27 II 9 NS // [(*ti-it-*)]*nu!-um-me-e-ni* KUB 58.74 obv. 9 NS

**2pl.pres.act.** *ti-it-ta-nu-ut-te-ni* KUB 31.105 13 MH/MS

**3pl.pres.act.** [*ti-i*]*t-ta-nu-an-zi* HHT 75 5 OS; *ti-it-ta-nu-an-zi*; *ti-it-ta-nu-wa-an-zi* KBo 13.161 III 9 NS, KUB 8.79 17 NS, KUB 29.44+ III 36 MS, KUB 59.17 obv. 18 NS; *ti-it-nu-an-zi* KBo 19.150 obv. 5 OH/NS; *ti-it-nu-wa-an-zi* KUB 55.38 II 3 NS

**1sg.pret.act.** *ti-it-ta-nu-nu-un* e.g., KUB 24.14 I 18 NH, *ti-it-nu-nu-un* KUB 19.27 obv. 4 NH

**3sg.pret.act.** *ti-it-ta-nu-ut* the Bronze tablet I 8 NH; *ti-it-nu-ut* KBo 32.14 lower edge 70 MH/MS, KUB 14.1+ rev. 40, 43 MH/MS, KUB 30.10 II 7 OH/MS

**1pl.pret.act.** *ti-it-ta-nu-um-me-en* KUB 17.18 III 5 NS, KUB 60.161 II 8 NS

**3pl.pret.act.** *ti-it-ta-nu-e-er* KUB 13.3 III 34 OH/NS, HKM 52 rev. 37 MH/MS; *ti-it-ta-nu-er* KBo 16.10 6 Murš. II/LNS, KBo 18.49 rev. 10 MS

**3sg.imp.act.** *ti-it-ta-nu-ud-du* the Bronze tablet II 93 NH

**2pl.imp.act.** *ti-it-ta-nu-ut-te-en* KUB 23.68 rev. 26 MH/NS, KUB 23.77 rev. 63 MH/MS ; *ti-it-ta-nu-ut-ten* HKM 65 obv. 9 MH/MS

**3pl.imp.act.** *ti-it-ta-nu-an-du*, *ti-it-ta-nu-wa-an-du*;

**part.** *ti-it-ta-nu-wa-an-t*;

**verbal noun n.-acc. sg.** *ti-it-ta-nu-mar* KUB 16.31 IV 19 LNS

**inf.I** *ti-it-ta-nu-ma-an-zi* KBo 5.9 II 36 Murš. II, KBo 19.66 I 37 Murš. II

**impf. 3sg. pret. act.** [*ti-*]*it-nu-uš-ke-et* KUB 14.1+ rev. 33 MH/MS

**impf. supine** *ti-it-nu-uš-ke-wa-an* HKM 47 obv. 11 MH/MS

The forms in this entry are usually attributed to a single verb, *tittanu-*, which is derived from *titta/i-* ‘to install’ or ‘to place’, mostly attested as a participle; *titta-* in turn seems to be a reduplicated stem of either *dai-/ti-* ‘to put’, PIE *\*d<sup>h</sup>eh<sub>1</sub>-* (so, e.g., Oettinger 1979: 350, Jasanoff 2010: 148f.) or *\*(s)teh<sub>2</sub>-* (HED 3: 465). Kloekhorst (2008: 884) derives *tit(ta)nu-* directly from *\*d<sup>h</sup>i-d<sup>h</sup>h<sub>1</sub>-neu-*.

However, Melchert (forthc. b) argues that there are two homonymous verb *tittanu-*; one means ‘to cause to stand, erect’ and is derived from *tiye/a-* ‘to step’, ultimately from *\*(s)teh<sub>2</sub>-*, and the other means ‘to place’, from *dai-* ‘to put’ < PIE *\*d<sup>h</sup>eh<sub>1</sub>-*. Accordingly, there are also two distinct verbs *titta/i-*<sup>173</sup>.

In both cases the meanings of *titta/i-* and *tittanu-* seem to be identical, cf. the following contexts for *titta/i-* and *tittanu-* ‘to place’:

KUB 2.2 II 37 8 *mān INA É.GAL<sup>LIM</sup> GIBIL GIŠ<sup>h</sup>hattalwaš GIŠ-ru tittanuwanzi*

“When they install the wood of the door bolt in a new palace...”

and the colophon to this tablet:

KUB 2.2 IV 12-13 (with dupl KBo 19.162 IV 11-12)

IV 12 DUB 1.KAM *QATI mān ANA É.[GAL<sup>LIM</sup> GIBIL] (13) ḥattalwaš GIŠ-ru*

*tittai*

“First tablet: finished. When one installs the wood of the doorbolt...”

(for the translation see Melchert forthc.b and the online edition by G. Torri and C. Corti at the HPM website).

There are several nasal formations made from reflexes of both *\*steh<sub>2</sub>-* and *\*d<sup>h</sup>eh<sub>1</sub>-* in other languages. In Hieroglyphic Luwian, there is a likely cognate *tanuwa-* ‘to erect, establish’. Tischler (HEG T: 388) also adduces as a structural parallel Russ. *denu* ‘I place’, which is a late formation according to Vasmer 1964-73 I: 509. Nevertheless, none of them is parallel to *tittanu-* ‘to erect’ and *tittanu-* ‘to place’.

**dusganu-** ‘to make happy’

<sup>173</sup> Hitt. *tinnu-* ‘to paralyze’ is likely to go back to *\*tit-nu-* and further to Hitt. *tiye/a-* ‘to stand’ and PIE *\*steh<sub>2</sub>-*; if so, *tinnu-* essentially mirrors the formation of *tittanu-* ‘to cause to stand, erect’, but the semantics is different. See the respective entry.

**2pl.imp.act.** *du-uš-ga-nu-ut-te-en* KBo 12.18 I 12 OH/NS

This verb is preserved in a broken context, but appears to be transitive, cf. HEG T: 467. The parent verb *dusk-* ‘to rejoice’ has since Petersen been connected with Skt. *túṣya-* ‘to be satisfied’ etc., PIE *\*teus-* ‘to be still, satisfied’ (LIV: 641f.). Alternatively, Neumann analyzed the stem of the base verb *dusk-* as *\*tu-ske-* and compared it to Got. *þiup* ‘das Gute’, Lat. *tueor* ‘to protect, observe’, PIE *\*teu-*, cf. HEG T: 466. Kloekhorst (2008: 901f.) points out that the actual stem is *dusk-* rather than *duske/a-*, so it cannot be a *-ske/a-* stem. I assume that the root is *\*teus-* and this is yet another instance of the suffix *\*-k-* in Hittite; for this suffix see the entries for *harnink-*, *hassikkanu-*, *maliskunu-*, *ninganu-* and Shatskov 2015.

**duddunu-** ‘to pardon, amnesty’,

**3pl. pres. act.** *du-ud-du-nu-wa-an-zi* KUB 22.64 II 5, *du-ud-du-nu-an-zi* KUB 5.5 II 29 NS

**1sg. pret. act.** *du-ud-du-nu-nu-un* KUB 60.2 12’ NS

**3pl. imp. act.** *du-ud-du-nu-an-du* KUB 26.43 obv. 63 Tudh IV

**part. n.-acc.** sg. *tu-ut-tu-nu-an* KUB 6.2 I 31 NS

**verbal noun** *du-ud-du-nu-ma-aš* KUB 26.58 I 16 NH Hatt. III

**impf.** *[d]u-ud-du-nu-uš-kat[-]* KUB 43.72 rev. III 15 NS

The parent verb is *duddu-* ‘to pity, have mercy’<sup>174</sup>. While it is often used in imperative, ‘have mercy!’ (e.g., KBo 25.112 obv. II 11’), its active indicative forms are usually transitive, cf. KUB 36.99 5’ (OS): *s=an tutut* ‘Er begnadigte ihn’ (HEG T: 476, see there for more contexts). A different translation has been proposed for *dudduskezzi* in IBoT 1.36 B-C 1’ and *dud[duske]zzi* in IBoT 1.36 D-E 2’ by Güterbock and van den Hout (1991: 7), namely, ‘is in command of them’. As for the context, the beginning of the line B-C 1’ is missing, but in the previous line guards’ faults are

<sup>174</sup> Kronasser (1966: 456) and Melchert (1999: 245) derive *duddunu-* from *du(wa)ddu-* ‘mercy’. The noun itself, however, is derived from *duddu-* ‘to ask for mercy, be merciful’ and is mostly used in the phrase *du(wa)ddu halzai-* ‘to call for mercy, cry ‘mercy!’’, s. HEG T: 497, so it is hardly the source for *duddunu-*.

mentioned, and the general sense may well be that only a commander-of-ten of the gold spears may ‘show mercy’ on them, cf. Miller’s translation ‘excuses’ (2013: 341<sup>110</sup>). *Duddunu-* has no apparent semantic difference from *duddu-*.

There is CLuw. *duddu-* ‘to show mercy’, e.g., KUB 22.20 20 obv. 4 *duddunti*. The etymology of *duddu-* is unclear, see HEG T: 477f.

**unu-** ‘to decorate, clean up’

**1sg. pres. act.** *ú-nu-wa-mi* KBo 55.223 14 NS

**3sg. pres. act.** *ú-nu-uz-zi* KBo 18.108 upper edge 9 NS, KBo 38.265 I 11 MS; *ú-nu-u[z-z]i* KBo 40.46 + KBo 35.156 III! 4 NS; *ú-nu-u-wa-iz-zi* KUB 10.91 II 16 OH/NS

**3pl. pres. act.** *ú-nu-wa-an-zi* e.g., KBo 2.13 obv. 13 NH, KBo 5.1 IV 16 MH/NS, KUB 17.35 I 32 Tudh. IV, KUB 58.100 III 4 NS

**3pl. pret. act.** *ú-nu-e-er* KBo 19.112 6 MH/NS, KUB 15.36 obv. 7, 10 NH, KUB 33.96 IV 16 NS; *ú-nu-er* KBo 39.290 III 10 NS; *ú-nu-wa-a-er* KUB 36.67 II 19 NH

**?2sg. imp. act.** *ú-nu-ut* KBo 25.119 3 OS, KUB 31.143 II 23 OS

**3pl. imp. act.** *ú-nu-wa-[an]-du* KUB 33.96 IV 13 + KUB 36.7a IV 50 NS, KUB 36.25 I 4 NS

**1sg. pres. med.** *ú-nu-wa-aḥ-ḥa-ri* KUB 17.9 I 32 NS

**3sg. pres. med.** *ú-nu-ud-da* KUB 4.4 II 15 NH

**3sg. pret. med.** *ú-nu-ut-ta-at* KUB 17.5 I 5 OH/NS

**3pl. pret. med.** *ú-nu-wa-an-ta-at* KUB 46.30 31 NS

**part. nom. sg. c.** *ú-nu-an-za(-pát)* KBo 25.61+ rev. 4 OS, KBo 25.62+ I 11 OS

**inf. I** *ú-nu-ma-an-zi* KUB 27.49 III 23 NS

**inf. II** *ú-nu-wa-an-na* KUB 17.35 I 28 Tudh. IV

**impf. part. nom. sg. c.** *ú-nu-uš-kán-za* KUB 8.41 III 15 OS, [ú-n]u-uš-kán-za KUB 31.143a + III 22 OS

For the contexts of the this see HEG U: 62ff. Active forms of *unu-* are generally used without the reflexive participle *-za* and mean ‘to decorate someone’, while middle

forms are used with *-za* and mean ‘to decorate oneself’. The only exception seems to be *-za unuwami* in KBo 55.223 14, but the context is too fragmentary (see de Roos 2007: 299f.).

*Unu-* looks like a *nu*-verb. The parent verb should then be *\*u-*, and the connection to *au(s)/u-* ‘to see, look’ cannot be completely excluded<sup>175</sup>. Nevertheless, since Petersen *unu-* has been related to Lith. *aũti* ‘to put on’, Lat. *induō* ‘to put on’, Arm. *(h)aganim* ‘to put on’ (cf. HEG U: 64). However, the Armenian forms point to an initial *\*h<sub>2</sub>*, which should have been preserved in Hittite, yielding *\*\*hunu-*. Kloekhorst (2008: 919) amends this etymology arguing that the PIE root was actually *\*h<sub>3</sub>eu-*. Alternative comparison with Lat. *aveō* ‘to be eager’, Skt. *avasá-* ‘food, refreshment’, Arm. *aviwn* ‘lust’, PIE *\*h<sub>2</sub>eu-*<sup>176</sup> ‘to enjoy, consume’ (de Vaan 2008: 65) is less attractive semantically and also leaves unexplained the missing laryngeal in the anlaut.

**uskenu-** ‘to carry auguries’?

**1pl. act.** *uš-ke-nu-mi<-en>/<-ni>* HKM 46 12 MS

The only attestation of this verb comes from HKM 46 12 *nu* EGIR-*pa*<sup>URU</sup> *Ta-pí-ig-ga u-un-nu-me-en na-aš-ta ka-a-ša* (13) <sup>URU</sup>*Ta-pí-ig-ga-az-za? ar-ḫa uš-ke-nu-mi<-en?>*

(After several failures) “Then we came back to Tapikka and from (the base of) Tapikka have now carried out the auguries!” (Hoffner 2009: 180).

*Uskenu-* is derived from *uske/a-* ‘to see’ which is in turn derived from *au(s)-* ‘to see’. The PIE root is *\*h<sub>2</sub>eu-* (so, e.g., Kloekhorst 2008: 229) or *\*h<sub>1</sub>eu-* (LIV: 243), cf. also HEG U: 118f. *Uskenu-* is a *\*-ske/a-* stem and in this respect resembles *lahlahheskenu-* ‘to agitate (horses), cause (the horses) to run’. The difference is that *uske/a-* must have been perceived as a separate verb, since it could form an imperfective stem of its own, *uskiske/a-* (for the forms see HEG U: 120).

<sup>175</sup> Semantically it is rather unlikely, as *uskenu-*, another *nu*-verb derived from *uske-* ‘to see’ (and ultimately from *au(s)/u-*), shows quite a different meaning ‘to carry auguries?’. On the other hand, rare middle forms of *au(s)/u-* mean ‘to be(come) visible’, and they could theoretically have served as the derivational base for *unu-*.

<sup>176</sup> Mallory, Adams (2006: 337) give this root as *\*h<sub>a</sub>eu-* ‘favour’.

**uwainu-** ‘to intercede, petition’

**?2sg. pres. act.** *u-wa-a[-i-nu-ši]* KUB 21.27 IV 26 NH

**2sg. imp. act.** *u-wa-ya-nu-ut* KUB 6.45 III 35 NH, *u-wa-a-i-nu-ut* KUB 21.27 IV 39 NH

For the contexts see HEG U: 172. *Uwainu-* is derived from *uwaya-* and *uwai-* (mid.) ‘to feel sorry’ or similar (for the translation see, e.g., Neu 1968: 185 and HEG U: 191), which in turn is related to *(u)wai-* ‘woe, sorrow’, believed to be onomatopoetic by Kloekhorst (2008: 939). Note though that *(u)wai-* is very similar to Lat. *vae* ‘alas’, Goth. *wai* ‘woe’, Av. *vaiiōi* ‘alas’ and is likely to be of PIE origin (cf. de Vaan 2008: 650).

**wahnu-** ‘to make turn, encircle, swing’

**1sg.pres.act.** *wa-aḥ-nu-mi* KBo 17.1+ II 37' OS, KBo 17.3+ II 45 OS

*wa-aḥ-nu-ú-mi* KBo 17.1+ II 18' OS, *wa-aḥ-nu-um-mi* KBo 12.58 obv. 8 NS

**2sg.pres.act.** *wa-aḥ-nu-ši*

**3sg.pres.act.** *wa-aḥ-nu-uz-zi* KBo 5.2 I 54 MH/NS, KBo 10.41 II 8 MH/NS, KBo 17.1 + II 32' OS, KBo 52.26+ II 42 MH/NS; *wa-aḥ-nu-zi* e.g., KBo 5.1 II 57, III 1 NH

**1pl.pres.act.** *wa-aḥ-nu-me-ni* KBo 17.1+ II 21 OS, *wa-aḥ-nu-um-me-e-ni*,

**2pl.pres.act.** *wa-aḥ-nu-ut-te-ni*,

**3pl.pres.act.** *wa-aḥ-nu-wa-an-zi* e.g., KBo 23.1 + II 3 NH; *wa-aḥ-nu-an-zi* KUB 29.4 III 66 NH

**1sg.pret.act.** *wa-aḥ-nu-nu-un*

**3sg.pret.act.** *wa-aḥ-nu-ut* KUB 36.89 rev. 13 NH

**1pl.pret.act.** *wa-aḥ-nu-um-me-en*

**3pl.pret.act.** *wa-aḥ-nu-e-er*, *wa-aḥ-nu-er*,

**2sg.imp.act.** *wa-aḥ-nu-ut* KUB 44.4 rev. 29 NH

**3sg.imp.act.** *wa-aḥ-nu-ud-du* KUB 12.24+ I 18 NS

**2pl.imp.act.** *wa-aḥ-nu-ut[-ten]*,

**3pl.imp.act.** *wa-aḥ-nu-wa-an-du*

**part.** *wa-aḥ-nu-an-t-, wa-aḥ-nu-wa-an-t-;*

**verbal noun** *wa-aḥ-nu-mar* KBo 1.42 III 46 NS; [*wa-*]*aḥ-nu-wa-u-wa-ar, u-wa-aḥ-nu-wa-ar* KBo 3.2 I 66 and passim MH/NS

**verbal noun** *wa-aḥ-nu-eš-šar* KUB 32.82 12 NS; *wa-aḥ-nu-eš-ni* KUB 29.55 I 16 MS

**inf.I** *wa-aḥ-nu-ma-an-zi;*

**impf. 3sg. pres. act.** *wa-aḥ-nu-uš-ke-ez-zi* KBo 5.2 IV 49 MH/NS

**impf. 3pl. pres. act.** *wa-a[h-nu-uš-k]án-zi* KBo 17.1+ II 33 OS, *wa-aḥ-nu-uš-kán-zi* KBo 24.5 II 12' NS

The meaning of this verb and the objects with which it is used vary substantially, ranging from carts (IBoT 1.36 IV 12 “But when they turn the cart”, Güterbock – van den Hout 1991: 33) to gods (KBo 23.1 II 2-3 “umkreist mann die Gottheit mit einem Adler, einem Falk, einem Lamm, einem Zicklein, einem Hurri-Vogel (und) einem *hušt*-Schwefel”, Strauss 2006: 268) and cities (KBo 3.4 II 64 “ich ging hin (und) schloss Puranda ein”, Götze 1967: 63). However, there are some intransitive attestations as well, e.g., KBo 5.2 IV 49: *IŠ-TU MUŠEN-ya I-NA UD<sup>7KAM</sup> QA-TAM-MA wahnuskezzi* “Auch mit einem Vogel schwenkt er ebenso an 7 Tagen” (Strauss 2006: 244)<sup>177</sup>, KBo 5.8 III 20 *nu=ssan pedi wahnunun* ‘machte ich kehrt’ (Götze 1967: 157), KUB 33.67 IV 19 <sup>d</sup>*Anzilis wahnut* “Anzilis turned” (Beckman 1983: 77) etc., s. Kronasser 1966: 450. The meaning of the majority of intransitive forms of *wahnu-* is identical to that of underlying verb, *weh-* ‘to turn’. In fact, it seems that *wahnu-* began to replace *weh-* ‘to turn’ at least in certain texts. In CTH 61 (Annals of Mursili), *wahnu-* is used both transitively and intransitively, in the meaning ‘to turn’, see, e.g., KBo 5.8 III 20 above, while there is not a single attestation of *weh-*.

The basic verb *weh-* may well be related to Skt. *véti*, Lith. *výti* ‘to pursue’, PIE *\*weih<sub>2</sub>-* (Eichner 1973: 77, Kloekhorst 2008: 995f.); *wahnu-* is based on the weak stem

<sup>177</sup> Though it may well be a case of ellipsis here.



*wah-*, with the *-a-* in the root analogical to *e/a*-ablauting *mi*-verbs, e.g., *es/as-* ‘to be’ (Kloekhorst op. cit.).

**waggasnu-** ‘to leave out’

**3pl. pres. act.** *wa-ag-ga-aš-nu-an-zi* VBoT 24 I 9 MH/NS

See *waksiyanu-*

**waksiyanu-** ‘to leave out, fall short’

**3sg. pres. act.** *wa-ak-ši-ya-nu-zi* KUB 13.4 III 40 MH/NS

**2pl. pres. act.** *wa-ak-ši-ya-nu-ut-te-ni* KUB 13.4 I 49 MH/NS

**1sg. pret. act.** *wa-ak-ši-ya-nu-nu-un* KBo 12.38 II 15 Supp. II

**3pl. pret. act.** *wa-ak-ši-nu-er* AT 454 II 19 NS

For the usage see, e.g., AT 454 II 19 *nu=wa* KÙ.BABBAR I ZU *wa-ak-ši-nu-er* “but they were short by one shekel of silver” (Gurney in Wiseman 1953: 116f).

Both *waggasnu-* and *waksiyanu-* are derived from *waksiya-* ‘to be lacking’, which in turn seems to be an *s*-enlargement of *wakk-* ‘to be lacking’. This verb is likely to be related to Lat. *vacuus* ‘empty’, PIE *\*(H)uh<sub>2</sub>k-* (cf., e.g., de Vaan 2008: 649), though the exact phonetic development for Hittite is not clear (cf. Kloekhorst 2008: 940). For another possible reflex of this root in Hittite see the entry for *unh-* ‘to empty’ in 3.1.

**wallanu-** ‘to erase?’

**3sg. pres. act.** *wa-al-la-nu-u[z-zi]* KUB 26.43 rev. 37 Tudh. IV

**part. n. sg. c.** *wa-al-la-nu-an-za* KUB 34.19 IV 9 OH or MH/NS

The only well preserved context is KUB 26.43 rev. 37 (CTH 225, Landgrant of Tuthalia IV): *našma ŠUM-an wa-al-la-nu-u[z-zi]*, which both Kloekhorst (2008: 945) and Imparati (1974: 39) interpret as ‘or erases the name’. This precludes any relationship with *walla-* ‘to praise’; therefore the parent verb is not attested.

Further etymology is not clear as well. Maier (2013: 185) derives *wallanu-* from *walh-* ‘to strike’ via an hypothetic intermediate stem *\*walla-* or *\*walle-*.

**warhunu-** ‘to plant densely’

**2sg.pret.act.** *wa-ar-ḥu-wa-nu-ut* KBo 12.59 IV 5 OH/NS

**part. nom. pl. c.** *wa-ar-ḥu-nu-wa-an-te-eš* KUB 13.24 16 MH/NS

**impf. 3sg.pres.act.** *wa-ar-ḥu-u-nu-uš-ke-ez-zi* KBo 10.47g III 13 NS

*Warhunu-* is derived from an *i*-stem adjective *warhui-* ‘rough, leafy’. For a recent discussion of semantics of this adjective see Maier 2011. *Warhui-* is in turn build to *\*war ḥu-* < PIE *\*wrh<sub>2/3</sub>u-* (Kloekhorst 2008: 961) or *\*werh<sub>2/3</sub>u-* (so Melchert 1984: 13). A different etymology was defended by Yakubovich (2011: 173) who, following Lehrman, argued that *warhui-* is a Luwianism and goes back to PIE *\*g<sup>w</sup>rh<sub>2</sub>u-* ‘heavy, difficult, important’.

**walganu-** ‘?’

**3sg. pres. act.** *wa-al-ga-nu-uz-zi* KBo 13.31 I 11 OH/MS

**3sg. pret. act.** *wa-al-ga-nu-ut* KUB 33.10 obv. 11 OH/MS

The verb is derived from *walk(iye)-*. The contexts for these verbs, collected by Neu 1968: 187f., are damaged, so their meaning cannot be established. Oettinger (1979: 234) and Kimball (1992: 81f.) tentatively suggest that it denotes an action with unpleasant consequences and compare it to OHG *walkan* ‘to roll, press’, Skt. *vālgati* ‘to jump’, PIE *\*welg-* (LIV: 676). This holds on purely formal grounds as the meaning of the Hittite verbs is still unknown. The phrase *n=uš wa-al-ga-nu-ut* (KUB 33.10 obv. 9) shows that *walganu-* is transitive.

**warganu-** ‘to make fat’

**1sg. pret. act.** *wa-ar-ga-nu-nu-un* KBo 32.14 II 12 MS

**impf.** [*wa-a*]r-ga-nu-uš-[ KBo 32.113 5 MS

Along with *warkess-* ‘to become fat’ *warganu-* is derived from *warkant-* ‘fat’.

The etymology of this root is well established, it is cognate with Skt. *urj-* ‘food, strength’, OIr. *ferc* ‘anger’, Gr. *όργάω* ‘to swell, overflow’, PIE *\*werHǵ-*. (Kloekhorst 2008: 964).

**warnu-** ‘to set fire to, burn (tr.)’

**1sg. pres. act.** *wa-ar-nu-mi* KBo 17.61 obv. 19’, rev. 24’ MS

**3sg. pres. act.** *wa-ar-nu-zi* e.g., KBo 5.1 I 10, 11 NS; *IZI-nu-zi* KUB 17.8 III 7 NS; *wa-ar-nu-uz-zi* e.g., KBo 19.137 IV 6’ NS

**3pl. pres. act.** *wa-ar-nu-an-zi* e.g., KBo 24.45 rev. 21’ MS with dupl. KBo 27.202+ III 27 *wa-ar-nu-wa-an-zi* MH/NS; *wa-ar-nu-wa-an-zi* e.g., KBo 5.2 II 10 MH/NS, KBo 19.136 obv. I 12’ NS, *wa-ar-nu-u-wa-an-zi* e.g., KUB 39.7 II 36 OH/NS

**1sg. pret. act.** *wa-ar-nu-nu-un*

**3sg. pret. act.** *wa-ar-nu-ut* e.g., KUB 33.10 II 20 OH/MS

**1pl. pret. act.** *wa-ar-nu-me-en*; *wa-ar-nu-um-me-en* KUB 20.96 IV 13 NS

**3pl. pret. act.** *wa-ar-nu-er* KUB 14.1 rev. 41 Madd.; *wa-ar-nu-e-er*; *wa-ar-nu-ú-e-er* KUB 17.10 III 15 OS or OH/MS

**2sg. imp. act.** *wa-ar-nu-ut* KBo 4.2. IV 1 Murš. II

**2pl. imp. act.** *wa-ar-nu-ut-tén*

**3sg. pres. med.** *wa-ar-nu-ta-ri* KUB 8.25 I 3, 9 OH?/NS

**part. nom. sg. c.** [*wa-a*]*r-nu-wa-an-za* KUB 12.48 obv. II? 3 OH?/NS

**verbal noun g.sg.** *wa-ar-nu-wa-aš* KUB 12.22 16 OH/NS; *wa-ar-nu-ma-aš* KUB 13.2 II 5 MH/NS, KUB 15.31 IV 32 MH/NS, *wa-ar-nu-um-ma-aš*

**inf. I** *wa-ar-nu-ma-an-zi*; *wa-ar-nu-um-ma-an-zi*

**impf. 3pl. pres. act.** *wa-ar-nu-uš-kán-z[i]* VSNF 12.76 obv. 5’ NS; *wa-ar-nu-uš-kán-zi* KBo 27.202+ III 31 MH?/NS

The verb *warnu-* is derived from *ur-<sup>ari</sup>*, *war-<sup>ari</sup>* ‘to burn (intr.)’. It has a secure etymology – OCS *vrěti* ‘to boil’, Lith *virti* ‘to boil’, PIE *\*werH-* (LIV: 689) or

\**werh<sub>I</sub>*- (Kloekhorst 2008: 924). Usually *-nu-* is added to a zero-grade of the root, cf., e.g., *sasnu-* ‘to make lie down, put to bed’. The derivative at the zero grade of this root would be \*\**urnu-*, which is not attested. Kloekhorst argues that OH \**urnu-* developed regularly to *warnu-* in Middle Hittite.

**warsanu-, warsiyanu-** ‘to appease (tr.)’?

**3sg. pres. act.** *wa-ar-ša-nu-uz-zi* KUB 12.21 6 NS

**1pl. pres. act.** *wa-ar-ša-nu-mi-ni* KUB 16.39 II 16, 44 NS

**3pl. pres. act.** *wa-ar-ša-nu-an-zi* KUB 13.4 IV 11 MH/NS with dupl. KUB 40.63

IV 5 *wa-ar-ši*(-)

**1sg. pret. act.** *wa-ar-ši-ya-nu-nu-un* KBo 12.38 II 21 Supp. II

**2sg. imp. act.** *warsanut* Friedrich

**3sg. imp. act.** *warsanuddu* Friedrich

**3pl. imp. act.** *wa-ar-aš-nu-an-du* KBo 3.21 III 10 OH?/MS; *wa-ar-ša-nu-wa-an-du* KBo 3.21 III 23 OH?/MS

**part. n.-acc. sg. neut.** *wa-ar-ši-ya-nu-wa-an* KUB 19.23 obv. 7 NS

The verbs *warsanu-* and *warsiyanu-* are derived from *wars-<sup>tta</sup>* and its later variant *warsiya-*, which are both transitive. Melchert (1994: 163) and Rieken (1999: 470<sup>2313</sup>) translate *wars(iy)anu-* ‘to soothe’ or ‘beruhigen’. Puhvel (HED 6: 43) interprets this verb as ‘to dissolve, run smooth’. Kloekhorst (2008: 969ff.) suggests an original meaning ‘to lift oneself, refresh’ for *wars(iya)-* with a subsequent development to ‘to appease’.

However, there are two contexts where neither the meaning ‘to soothe’, nor ‘to appease’ seem to work.

Miller (2013: 219) translates *warsiyandu* in KUB 13.1 I 36 as ‘they must patrol’:

35 [(*a-ú-ri*)]-*ya-aš-za ku-is ÉRIN<sup>MEŠ</sup> ḫar-zi na-aš pa-aḫ-ḫa-aš-nu-wa-[an-za e-eš-du (nam-ma-kán)]* (36) [(KASKAL<sup>HLA</sup>)]-*TI SIG<sub>5</sub>-in wa-ar-ši-ya-an-du nu<sup>LÚ</sup> KÚR-aš [(u-ur-k)i-i(n uš-kán-du)]*

“(whatever post has a garrison, it shall thereby be protected.) [(Further)], they must patrol the [(roads)] well, (and they must watch for sign of the enemy)”.

The second context is KBo 12.38 II:

20 *na-an da-ni-nu-un*

21 *wa-ar-ši-ya-nu-nu-un*

Güterbock (1997: 195) leaves *warsiyanu-* here without translation: “(l. 17-21) I built an Everlasting Peak. I made the image and carried it into the (building called) Everlasting Peak; I installed it and ...-ed it.” A meaning like ‘to patrol’ or ‘to guard’ fits better here than ‘to appease’. In fact, *warsiya-* in these two fragments may belong to yet another verb.

The etymology of *wars(iya)-* depends on its meaning. Kloekhorst (2008: 969ff.) assumes ‘to lift oneself, refresh’ as the original meaning and compares the verb to Skt. *várṣman-* ‘hight’, OCS *vrъxbъ* ‘top’, PIE *\*wers-*. But if we assume that ‘to soothe, appease’ or ‘to liquify’ is the original meaning, I see no other option rather than to follow Melchert’s comparison with Hitt. *warsa-* ‘mist’?, ‘dew’ or ‘rain’, related to Skt. *várṣa-* ‘rain’. If so, the root must be PIE *\*h<sub>1</sub>wers-* (Beekes 2010: 465) rather than *\*h<sub>2</sub>wers-* (LIV: 291f.), since *\*h<sub>2</sub>* would have been preserved initially, cf. *hues-* ‘to live, survive’ < *\*h<sub>2</sub>wes-*.

**wastanu-** ‘to sin’

**3sg. pres. act.** *wa-aš-da-nu-zi* KUB 13.3 I 6’ OH?/NS

**3pl. pres. act.** *wa-aš-ta-nu-an-zi* KBo 12.25 7’ NH (cf. dupl. KBo 12.26 I 18’ *wa-aš-t[a]*)

**1sg. pret. act.** *wa-aš-ta-nu-nu-un* KUB 26.33 I 11 Supp. II

**part. n.-acc. sg. neut.** *wa-aš-ta-nu-wa-an* KBo 5.1 obv. I 42, 44 NH

**part. abl. sg.** *wa-aš-ta-nu-wa-an-da-za* KUB 16.16 rev. 15 NH

Both finite forms of *wastanu-* in preserved contexts are intransitive – *man wa-aš-ta-nu-nu-un* ‘I would have sinned!’ in KUB 26.33+ II 11 (d’Alfonso 2007: 212), and in KBo 12.26+ I 18 *nu* KASKAL-ši (KASKAL-*an* in KUB 12.25 7) *wa-aš-t[(a-nu-an-*

zi)] “Auf dem Weg machten Sie (zur) Sünde” (Heinhold-Krahmer 1977: 285). The verb is derived from *wasta-* ‘to sin’ which is usually intransitive, though may be considered transitive in examples like KUB 14.11 III 28-29 *am-mu-uk-ma Ū-UL [(ku-it-ki)] wa-aš-ta-aḫ-ḫu-un* “I did not sin anything”, if *kuitki* is analyzed as a pronoun in n.-acc. sg. neut. here rather than an adverb. There is also a parallel *ahh*-factitive *wa-aš-ta-aḫ-ḫe-eš-ku-x-x?* KUB 36.86 obv. 8 NS.

The difference between *wasta-* and *wastanu-* may also be that the latter refers to specific situations and has a terminative or telic function. *Wasta-* on the other hand refers rather to general situations, cf.

KUB 33.24 I 34’ *UMMA ABI* <sup>D</sup>IM *ŪL=wa ūk wastahhun* “Folgendermassen (sprach) der vater des Wettergottes: Ich habe nicht gesündigt” (Klinger 1996: 149)

or

KUB 6.44 IV 31 *zik* <sup>m</sup>*Kupanda-* <sup>D</sup>KAL-*as* (32) [*ANA PANI DINGIR*<sup>MEŠ</sup>] *wastatti*

“(If someone speaks an evil word concerning My Majesty before you, Kupanta-Kurunta, and you conceal it from My Majesty ...) you, Kupanta-Kurunta, will offend [before the gods]” (Beckman 1996: 75)

Note also that similarly to *pahs-* and *pahsanu-*, only *wastanu-*, but not *wasta-*, has participles. See further 4.14-15.

There is no plausible etymology for *wasta-*. It has been compared by Castanicos to Gr. ἁρτη ‘error, sin’, PIE *\*h<sub>2</sub>wmst-* (or *\*h<sub>2</sub>wen-*, so Rieken 1999: 460ff.), but the Greek word is rather related to ἁάω ‘to damage’ and hardly belongs here, s. Kloekhorst 2008: 986, Beekes 2010: 3. Within Anatolian *wasta-* can perhaps be connected with Hitt. *waskui-* ‘sin’, CLuw. *waskui-* ‘sin’, but further etymology is not clear.

**watkunu-** ‘to drive off’

**3sg. pres. act.** *wa-at-ku-nu-zi* KBo 27.203 obv. II 7 NS, *wa-at-ku-nu-uz-z[i]* KUB 45.3(+)-47.43 obv. I 35 MS, KUB 47.89+ obv. II 9 NH

**1sg. pret. act.** *wa-at-ku-nu-n[u-u]n* KUB 19.9 II 35 NH

**3sg. pret. act.** *wa-at-ku-nu-ut*

**3pl. pret. act.** *wa-at-ku-nu-e-er*; *wa-at-ku-nu-er* KBo 5.8 I 43 Murš. II, KUB 14.15 IV 23 Murš. II

This verb is derived from *watku-* ‘to jump, flee’. It can go back to a root *\*wetk<sup>w</sup>-*, which may be further analyzed as the root *\*tek<sup>w</sup>-* ‘to walk, hurry’ with the prefix *we-*, also found in Hitt. *wete-* ‘to build’, s. Oettinger 1979: 237, Kloekhorst 2008: 990, and also Dunkel (2014: 839ff.) on the prefix *\*ye-* in PIE.

**weritenu-** ‘to scare’

**3sg. pres. act.** *ú-e-ri-da-nu-zi* KBo 12.106+ I 3 OH or MH/NS

**3pl. pret. act.** *ú-e-ri-ta-nu-er* KUB 59.46 rev. 12 NS; *ú-e-ri-te-nu-er* KUB 9.34 III 30 NS

**verbal noun n.-acc. sg. neut.** *ú-e-ri-te-nu-m[ar]* KBo 1.31 I 13 NS

**impf. 3sg. pret. act.** *ú-e-ri-ti-ya-nu-uš-ke-et* KUB 52.44 I 15 NS

The verb *weritenu-* is derived from *werite-/werit-* ‘to fear, be frightened’ (KUB 14.7 I 11). In turn, *werite-* may be plausibly analyzed as a compound verb *weri-* + *te-*, the second part of which can be compared to *-te-* in *wete-/wet-* ‘to build’ and *pehute-/pehut-* ‘to lead, bring (there)’, while the first part *weri-* is likely to be related to *weriye-* ‘to call’ (Oettinger 2001: 467, Kloekhorst 2008: 1003).

**\*zahhiyanu-**

If *MÈ-ya-nu-nu-un* in KBo 3.4 II 60 (Murš. II) is to be read as *zahhiyanunun*, the form is likely to be a derivative of *zahhiya-* ‘to campaign, wage war’, which itself is derived from *zāhh-* ‘to hit’. Schindler apud Oettinger (1979: 447) compares the latter verb to Gr. *δαῖ* ‘in battle’, while Kloekhorst (2008: 1020) prefers to trace it back to the root *\*tjeh<sub>2</sub>-* ‘to strike’, from which he also derives Gr. *σημα* ‘mark’, *σῶμα* ‘living or dead body’.

**zainu-, zinu-** ‘to make cross’

**3sg. pres. act.** [z]*i-nu-uz-zi* KBo 10.11 I 7 OH/NS

**3pl. pres. act.** *za-nu-ma-an-z[i]* KUB 23.101 III 8 NH, *za-a-i-nu-an-zi* IBoT 3.148 III 42 MH/NS, *za-a-i-nu-wa-an-zi* KBo 10.44 obv. 19 NS

**3pl. pret. act.** *za-i-nu-er* KUB 1.1 + IV 37, KUB 1.8 IV 19 NH; *za-a-i-nu-er* KBo 3.6+ III 78 (KBo 3.6 III 67) NH; *zi-nu-e-er* KBo 3.46 I 19 OH/NS

**impf. 3sg. pres. act.** *zi-nu-uš-ke-ez-zi* KBo 6.3 II 52 OH/NS; *zi-i-nu-uš-ke-ez-zi* KBo 6.2 + II 30 OS; *zi-e-nu-uš-ke-ez-zi* KBo 6.5 IV 12 ON/NS; [za]-*a-i-nu-uš-ker* KUB 33.124 IV 4' NS

**inf. I** *za-nu-ma-an-zi* KBo 22.6 I 20 OH/NS

*za-i-nu-x[* IBoT 4.242 5 832 NS br.

*za-i-nu-wa-a[n-* KBo 35.227 obv. 9 NS

*Zainu-* is a ‘true’ causative to an already transitive *zai-* ‘to cross’ and as such it often takes two objects, cf., e.g.,

KBo 6.2. II

30 *takku* LÚ-as GU<sub>4</sub>-ŠU ÍD-an *zi-i-nu-uš-ke-ez-zi* “If a man makes his ox to cross a river, ...”<sup>178</sup>.

IBoT 3.148 III:

42 *nu=kan* DINGIR<sup>MES</sup> KASKAL-an *za-a-i-nu-an-zi*

“man lässt die Gottheiten den Weg beschreiten/überschreiten.” (Haas 1998: 121)

There can be only one object as well:

In KUB 33.124 IV 3-4 *ammuk=wa apūs 2 ALAM* NA<sub>4</sub> [z]*āinusker* “those two stone statues made/helped me cross (the water)” (cf. Rieken’s translation at the HPM website – “Die zwei Statuen aus Stein [b]rachten mich hinüber”).

*Zai-* ‘to cross’ has no clear etymology. Kloekhorst (2008: 1026) connects it with Skt. *at-* ‘to roam’, PIE *\*h<sub>1/3</sub>et-*. The Sanskrit verb is usually compared to Lat. *annus* ‘year’ and PIE *\*h<sub>2</sub>et-* (LIV: 273), but the connection to Hitt. *zai-* is more attractive semantically.

<sup>178</sup> Hoffner’s translation of this passage (1997: 51) “If a man is crossing a river with his ox ...” does not convey the causative aspect of the meaning of *zainu-*.



**zaluganu-** ‘to postpone’

**1sg. pres. act.** *za-lu-ga-nu-mi* KUB 21.38 obv. 37 OH/NS

**3sg. pres. act.** *za-lu-ga-nu-zi* KUB 13.20 MH/NS obv. I 12, KUB 26.17 I 9 MH/MS, *za-lu-uk-nu-zi* KUB 26.17 I 9 MH/MS

**1pl. pres. act.** *z[a-lu-ga-nu-um-me-e-ni]* KUB 49.2 I 6 NS

**3pl. pres. act.** *za-lu-ga-n[u]-an-zi* KUB 55.43 I 14 MH/MS

**2pl. pret. act.** *za-lu-qa-nu-me-en* KUB 18.36 12 NS

**3pl. pres. med.** *za-al-qa-nu-an-ta-ri* KUB 13.1 IV 22 MH/MS

**verbal noun n.-acc. sg. neut.** *za-lu-ga-nu-mar* KUB 21.38 obv. 34, 36 NH

**impf.** *za-lu-ga-nu-u[š-ke-ši?]* KUB 21.38 obv. 25 NH

*Zaluganu-* is usually transitive and means ‘to delay’. When it is used along with *nuntarnu-* (KUB 21.38 obv. 37 as opposed to obv. 25 in the same text), it is intransitive (cf. CHD L-N: 474). One more example where *zaluganu-* is intransitive, is KUB 13.20 I 12 *mān* <sup>LÚ</sup>KÚR=*ma kuwatka za-lu-ga-nu-zi* ‘If the enemy for some reason takes long...’.

There is a related verb *zaluless-* ‘to take long’ (*za-lu-ki-iš-ta* KUB 18.59+ II 13, *za-lu-keš[-ta]* KUB 50.77+ r.col. 5). While the comparison of the underlying stem *zalu-* with Gr. λήγω ‘to end’ (PIE *\*sleh<sub>1</sub>g-*) is possible, *zalu-* can also be connected with Hitt. *daluki-* ‘long’ and its derivatives *daluknu-* ‘to lengthen’ and *dalukess-* ‘to become long’ (PIE *dleh<sub>1</sub>g<sup>h</sup>-*, Gr. δολιχός etc.). The latter solution requires assibilation of Proto-Anatolian or Pre-Hittite *\*tl-*<sup>179</sup> to *\*tsl-*. If so, *zalu-* goes back to a zero-grade form, while *daluknu-* would go back to a full grade *\*dol-*, s. Kloekhorst 2008: 1027f.

**zanu-** ‘to cook’

**3sg. pres. act.** *za-nu-uz-zi* KBo 25.106 7'OS, *za-nu-u[z-zi]* KBo 17.29 + KBo 20.1 I 3' OS; *za-nu-zi*

<sup>179</sup> On devoicing of word-initial stops in Anatolian see, e.g., Melchert 1994: 18ff.

**3pl. pres. act.** *za-nu-an-zi* KBo 25.24 obv. 9 OS, KBo 13.175 rev. 6 OS; *za-nu-wa-an-zi* e.g., KUB 2.13 obv. II 57, III 7, 8 OH/NS; [*za-n*]*u-u-wa-an-zi* e.g., KUB 34.66+ rev. III 6; *zé-nu-wa-an-zi* KUB 38.25 I 14 NS

**3sg. pret. act.** *za-nu-ut*

**3pl. pret. act.** *za-nu-er*

**part. n.-acc. pl. neut.** *za-nu-wa-an-ta* KUB 2.13 obv. II 61'', III 12' OH/NS

**inf. I** *za-nu-ma-an-zi* e.g., KBo 15.33+ III 30 MS, IBoT 1.31 II 3 NS

**impf. 3pl. pres. act.** *za-nu-uš-kán-zi* KBo 2.29 rev. 16 NS, KUB 7.1 II 6 OH/NS; *za-nu<-uš>-kán-zi* KBo 15.33+ III 29 MS

*Zanu-* is derived from *zē-* 'to be ready', which does not have a secure etymology. Melchert (1994: 118) compares it with Latin *tītio* 'fire-brand', and reconstructed PIE *\*tejh<sub>1</sub>-*. Kloekhorst (2008: 1033f.) reconstructs *\*tjeh<sub>1</sub>-* on formal grounds, but he objected that the semantic side of this etymology is not beyond doubt. The common notion shared by Latin *tītio* 'fire-brand' and Hitt. *zē-* 'to be cooked, ready' is likely 'to be(come) hot' (thus LIV: 617); if so, one has to assume that *zinne-* 'to finish', which is generally believed to have been derived from *zē-* as well, originally had the meaning 'to make (food) ready'.

The formal aspects of deriving *zanu-* from *zē-* are also problematic. Proto-Indo-European *\*tih<sub>1</sub>-neu-* should have yielded *\*zīnu-* (cf. *kīnu-* 'to open'); *zanu-* is to be analyzed as *z-nu-*, based on the stem *z-* (cf. Kloekhorst op. cit.). This stem, however, must be different from the middle stem *zē-*. Perhaps, it is yet another type of a Caland system derivation whereby one suffix (*-nu-*) replaces another (*-ē-*) in *zē-* rather than being added to it. While there are no other examples for such derivation, stative verbs in *-ē-* are part of the Caland system, e.g., *paprē-* 'to be proven guilty by ordeal, do something impure', related to *paprant-* 'impure, unclean', *paprahh-* 'to defile'. See further 4.9 on the Caland system and *nu*-verbs in Hittite. Etymologically, *zē-* is not a stative verb, but it may well have been perceived as such, due to a similar auslaut and semantics. Statives in *-ē-* usually have factitives in *-ahh-* as their

counterparts, but, according to Oettinger 1979: 238, this relationship was not yet firmly established in Old Hittite.

**zappanu-** ‘to pour drop by drop’

**3sg. pres. act.** *za-ap-pa-nu-uz-zi* KBo 5.2 I 51 MH/NS, KBo 13.142 I 9’ OH/NS, KBo 33.23 11’ NS, KBo 34.92 obv. I 16’ MH/NS, KBo 39.156 III 16’’ NS, KUB 7.1 I 28 OH/NS, IBoT 2.124 obv. I 12’ (-p)a-nu-uz-zi), KBo 23.15 obv. I 7’ NS (*za-ap-p[a-]*); *za-ap-pa-nu-zi* KBo 21.28 obv. I 5’ NS [*za*]-ap<sup>1</sup>-pa-nu-zi), KUB 32.58 obv. I 4’ MH/MS ([*za-a*]p-pa-nu-zi), KUB 43.58 II 36’ MS with dupl. KUB 15.42 II 25; *za-ap-nu-zi* KBo 8.152 11’ NS, KBo 19.136 obv. I 15 NS, KBo 21.33+ obv. I 19 MS, KBo 27.143 12’’ MS?, KUB 32.43 obv. I? 4’ NS, KUB 32.44 III 8’ NS; *za-ap-nu-uz-zi* KUB 9.6 I 38 MH/NS, KUB 39.71 I 28 MH/NS

**3pl. pres. act.** *za-ap-pa-nu-wa-an-zi* KBo 23.1+ III 33 NH; *za-pa-nu-wa[-an-zi]* KUB 30.25+ obv. 2 OH?/NS

**2sg. imp. act.** *za-ap-nu* KBo 22.49 rev. III 3’ NS

**impf. 3sg. pres. act.** *za-ap-pa-nu-uš-ke-ši* HKM 10 rev. 31 MS

The usual object is oil, with a rare exception in HKM 10 Rs. 30 *zig=a=mu=ssan p[ar]ā?* (31) *zappanuskesi*, which is translated by Hoffner as follows “you are causing me (my strength) to drip away” (Hoffner 2009: 378<sup>49</sup>, cf. CHD P: 117). The middle forms of the base verb *zappie-* mean ‘to leak’ (s. Kloekhorst 2008: 1031), while the active imperfective form *zappiskezzi* in KUB 30.10 II 15 is translated by Singer (2002: 33) “and because of the anguish my soul **drips away** from me to another place”. *Zappiyazi* in KUB 9.15+ III 29 is found in broken context, and *ú-te-er=ma nu za-ap-pí-e-er* in KUB 48.7 III 3, 8, along with *ú-e-er=ma nu za-ap-pí-e-er* in l. 12 are in rather unclear KILAM fragments; whatever the exact analysis of these forms is (cf. the translation in HW<sup>2</sup> III: 224 “Sie brachten aber und schwitzten”), they seem to be intransitive. Etymology is unclear.

## Conclusions

In the following sections I will discuss the peculiarities in conjugation and derivation of the *nu*-verbs and their semantics.

**4.2** The conjugation of the *nu*-verbs is similar to that of other *mi*-verbs with the exception of the 2sg. imper. act. Instead of a zero ending, typical for other verbal stems ending in a vowel (e.g., *iya* ‘make!’, *peske* ‘give’), *nu*-verbs show the ending *-t*<sup>180</sup>, cf., e.g., *ar-nu-ut* in HKM 31 obv. 27 *n=an=kan* (28) *parā arnut* (29) *n=an=mu uppi* ‘Expedite it and send it to me’ (Hoffner 2009: 158) or *pár-ku-nu-ut* in KBo 11.1 obv. 42 *nu=mu DINGIR<sup>LIM</sup> kūn memian teshit parkunut* ‘may you, O god, clarify this matter to me in a dream’ (CTH P: 173). There may be one exception to it, namely, the form *arha zapnu*. It is attested in KBo 22.49 rev. III 3’ at the beginning of the line: *ar-ḥa za-ap-nu na-an x[* (s. Otten 1971: 44). The context is badly damaged, so it is not possible to determine the syntactic function of *zapnu* with certainty, but the form resembles an otherwise unattested imperative form with the zero ending.

The origin of the ending *-t* is not exactly clear. The imperative *īt* from *i-zi* ‘to go’, PIE *\*h<sub>1</sub>ei-*, has been compared with Gr. *ἴθι*, Skt. *ihí*, which contain a reflex of *\*-d<sup>h</sup>i* that could originally be an optional particle (so Clackson 2007: 128). Reflexes of the ending *\*-d<sup>h</sup>i* are widely attested as 2sg. imp. ending for athematic stems in some IE languages like Indo-Iranian and Greek, see Sihler 1995: 601ff. The ending *-t* in the 2sg. imp. act. of Hittite *nu*-verbs is likely to be of the same origin. However, it is not clear what should have happened to the final *\*-i* of this ending/particle in the prehistory of Hittite. It could have been lost after a dental (or perhaps merged with it and resulted in assibilation), as is suggested for the 3sg. pres. act. *-zi* < PIE *\*-ti*, which is sometimes spelled in OS texts and copies of OH texts as *-za* (s. Hoffner, Melchert 2008: 182f.). Under this analysis, *\*d<sup>h</sup>* was not assibilated in front of *-i*; note that assibilation should have taken place before the loss of the final *\*-i* since *\*t* in 3Sg.

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<sup>180</sup> There are some exceptions. Besides *nu*-verbs the ending *-t* is also attested in *īt* ‘go!’, *uwatet* ‘bring here!’ (along with expected *uwate*, *uwati*), *tēt* ‘speak!’ and *warput* VBoT 120 III 7 (cf. Hoffner, Melchert 2008: 182<sup>19</sup>).

pres. was assimilated; see also the discussion in Kimball 1999: 292, Kloekhorst 2008: 68.

**4.3** There are only a few cases of *nu*-verbs inflected medially. Below are listed all the forms I know of: 3sg. pres. med. *aš-nu-ut-ta-ri* KUB 32.130 11 MS, KBo 50.268+ II 21 MS?; *aš-ša-nu-ut-ta-ri* KBo 9.96 II 3 NS; *aš-ša-nu-ud-da-a-ri* KUB 13.20 I 10 MH/NS; *a-aš-ša-nu-ud-da-a-ri* KUB 13.20 I 12 MH/NS; 3pl. pres. med. *aš-nu-wa-an-ta-ri* KUB 29.40 II 7 MS, KUB 29.44 III 5 MS; 3sg. pret. med. *aš-nu-ut-ta-at* KUB 15.34 IV 41 MS; *aš-nu-ut-ta-ti* KBo 17.95 II 11 MS; 3sg. imp. med. *aš-ša-nu-ut-ta-ru* KUB 36.30 5 NS; impf. 3sg. pres. med. *i-nu-uš-ke-et-ta-ri* KBo 13.119 I 7 MH?/NS; *ki-nu-ut-ta-ti* KBo 49.11 rev. 11 NS; 3sg. imp. med. *ki-nu-ut-ta-ru* KBo 2.3 IV 13 MH/NS; 3sg. pret. med. *pár-ku-nu-ut-ta-ti* KBo 3.63 I 10 OH/NS with dupl. *pár-ku-nu-ta-ti* KBo 3.66 9 OH/NS, 3pl. pret. med. *šal-la-nu-wa-an-ta-ti* KUB 8.51 II 11 NS; 1sg. imp. med. *ta-aš-ša-nu-uḫ-ḫu-ut* KUB 23.77 + obv. 35 MS; 1sg.pres.midd. *ú-nu-wa-aḫ-ḫa-ri* KUB 17.9 I 32 NS; 3sg.pres.midd. *ú-nu-ud-da* KUB 4.4 II 15 NH; 3pl.pret.midd. *ú-nu-ut-ta-at* KUB 17.5 I 5 OH/NS; *ú-nu-wa-an-ta-at* KUB 46.30, 31 NS; 3sg. pres. med. *wa-ar-nu-ta-ri* KUB 8.25 I 3, 9 OH/NS; 3pl. pres. med. *za-al-qa-nu-an-ta-ri* KUB 13.1 IV 22 MH/MS. There may also be a middle form made from an imperfective stem in KUB 31.91 9 (MH/NS) *pár-ga-nu-uš-kán-ʿtaʿ-[ri]*, unless it is to be read *pár-ga-nu-uš-kán-ʿduʿ*. Some of these forms are syntactically passives, like KUB 8.25 I 8 or KUB 29.44 III 5 *asnuwantari=ya=at=kán* “and they (horses) are taken care of” (cf. Kammenhuber 1961: 162f.) or *wa-ar-nu-ta-ri* (see below). The form *sallanu-* in KUB 8.51 III 11 [*kuies*] *ammel sallanuwantati* is translated as inchoative in CHD Š: 88: “(cedars), which, as mine, have grown up”. However, it is better to translate this phrase as “(cedars) that have been grown up by me”, with *ammel* denoting the agent.

These middle forms are not numerous, and most of the examples are either in Middle Hittite originals or in late copies of Old and Middle Hittite texts. This is not surprising, as there was a tendency in New Hittite for transitive verbs to be active (cf. Hoffner, Melchert 2008: 233). Note that there are no or almost no middle forms made

from imperfective stems. One could also note that middle forms are mostly found with verbs that do not have an attested basic stem (*asnu-*, *kīnu-*, *unu-*) or, occasionally, from frequent *nu*-verbs. On the whole, middle forms are rather uncharacteristic for *nu*-verbs.

Luraghi (2010: 148) argued that middle forms of *nu*-verbs denoted controlled events. This is difficult to either prove or refute. There are only two verbs that have middle forms both in a basic stem and in a *nu*-stem. These are: 1) *a(i)-<sup>a(ri)</sup>* ‘to be hot’ and *inuskettari* KBo 13.119 I 7 in a rather broken context *n=as=za inuskettari*; 2) *ur-<sup>a(ri)</sup>* ‘to burn (intr.)’ and *warnutari* KUB 8.25 I 8 KUR-*yas* (9) A.ŠÀ *kuras IZI-it warnutari* “(When in the sixth month a star falls from heaven) the land’s field will be burned by fire” (CHD P: 13). An idea of control may perhaps be seen in some of the inchoative and intransitive middle forms, like KBo 3.63 I 10 [<sup>URU</sup>*Kalas(mas)a*]z EGIR-*anda parkunuttati* “Afterwards [Kalas]masa purified itself” (Beckman 2001: 53, 56). On the other hand, in some passages it is difficult to see any notion of control, as in KUB 13.1 IV 22 *māhhann=a GU<sub>4</sub><sup>HLA</sup> zalqanuantari* “and when the cattle are late” (Miller 2013: 235). Nevertheless, since many *nu*-verbs are also derived from adjectives, the notion of control is hardly the main function for *-nu-*.

**4.4** In Proto-Indo-European, the shape of the suffix should have been *\*-néu-* in the singular and *\*-nu-* in the plural, s. LIV: 17f. and 4.1 above. The shape of this suffix in Hittite seems to be just /nu/. There are only two forms that may point to an /ū/ in the singular: an Old Hittite *wa-aḥ-nu-ú-mi* KBo 17.1+ II 18’ as well as a late copy of an Old Hittite original *ḥu-iš<sup>1</sup>-nu-ú-ut* KBo 3.28 II 19. There are also some plene spellings in the infinitive (*aš-nu-u-ma-an-zi* KBo 23.41 rev. 13) and. Pres. Act. (e.g., *aš-ša-nu-u-wa-an-zi* KUB 25.41 V 12, cf. also an unusual inf. *aš-nu-u-wa-u-wa-an-zi* KUB 41.31 obv. 11), but they have nothing to do with a vowel length and rather deal with the transmission of the glide /w/ between vowels. Moreover, we would not expect a full grade of the suffix in an infinitive. On the contrary, the forms *wa-aḥ-nu-ú-mi* and *ḥu-iš<sup>1</sup>-nu-ú-ut* show that there may have been /nū/ in the singular in Old Hittite, and the ablaut Sg. *-nū-* (< PIE *\*-neu-*) : Pl. *-nu-* still existed at some moment in the prehistory of Hittite.

**4.5** Some *nu*-stems have a zero grade of the root, e.g., *huinu-* (*huwai-*) and *inu-* (*ā(i)-*) as well as *maknu-* < *mekki-* and *sasnu-* < *ses-*, where *-a-* seems to be a reflex of an epenthetic vowel, s. Kloekhorst 2008: 747. However, there are verbs of the same structure that show an *e*-grade of the root like *tepnu-*, *tepsanu-* or *huisnu-*, though for the latter there are several NS forms with the zero grade. The full grade of the root instead of the expected zero grade makes deadjectival origin of these verbs quite likely, cf. further 4.13. A problematic case is the *nu*-verb derived from *mēma/mēmi-*, which shows reflexes of both the strong stem, *memanu-* (in an OH/MS and an OH/NS texts), and the weak stem, *mēmiyanu-* (in KUB 4.47 NS, CTH 432, Ritual against depression).

The expected *nu*-derivatives form *ispai/i-* ‘to get full, be filled’ and *mai/i-* ‘to grow’ would be *\*ispinu-* and *\*minu-*, similar to *pittinu-* from *piddai/piddi-* ‘to run, race’ and *huinu-* from *huwai-* ‘to run’, but actual verbs are *ispianu-* and *miyanu-*, with *-anu-* instead of *-nu-*. These verbs are attested only in NS and NH texts, and the stems *mēmiyanu-*, *ispianu-* and *miyanu-* must be analogical, see further 4.6 below.

**4.6** Some *nu*-verbs are derived from secondary verbal stems. This is the case of the stem *tamanganu-*, made from the infixed stem *tamank-*, and the same analysis is very likely for inchoative *-ess-* stem *hatkes(sa)nu-* and *lalukkešnu-*, though the former was alternatively explained as derived from an *s*-stem noun *\*hatkes-*. The form *lah(hi)lahheskenu-* in KUB 1.13+ I 16, IV 8, 42 is probably an ad hoc formation, though there is another verb, *uskenu-*, which appears to have been derived from a *-ske/a-* stem. However, synchronically *uske-* was no longer perceived as an imperfective from *au(s)/u-* ‘to see’, as it formed its own imperfective stem in *-ske/a-* – *uskiske-*. *Asisanu-* and *tittanu-* are built to already transitive reduplicated stems *asas/ases-* and *titta-* with virtually the same meanings.

Quite a few *nu*-verbs were formed from a secondary *ye/a*-stem; these are: *assiyanu-*, *ētriyanu-*, *halinu-*, *kari(ya)nu-*, *kartim(miya)nu-*, *karūssiyanu-*, *katkattinu-*, *genusrinu-*, *lahlahhinu-*, *parkiyanu-*, *šaku(wa)ntar(r)iyanu-*, *tariyanu-* (x2),

*waksiyanu-* (besides *waggasnu-*) and *warsiyanu-* (besides *warsanu-*). In some verbs, we see just *-i-* instead of *-iya-* or both *-i-* and *-iya-*. For instance, in *kari(ya)nu-* the distribution is as follows: *ka-ri-nu-* and *ga-ri-nu-* are attested in OS texts as well as in OH/NS and NS texts, whereas *ka-ri-ya-nu-* occurs in a NH text. As for the *nu-* derivative from *karti(m)miye/a-* ‘to become angry’, the stem *kar-tim-mi-ya-nu-* is found in NH and NS texts, but we have *kar-di-mi-nu-* as the only MS attestation, and there is also an obscure *kar-tim-nu-* in an NH text. All the four attestations of *ḥa-li-nu-* and the only attestation of *ge-nu-uš-ri-nu-* are likewise in MH/MS texts. Summing up, in Old Hittite and Middle Hittite we find *-i-* (perhaps, a morphonological variant?<sup>181</sup>) instead of *-iye/a-* in derived *nu-* stems. In New Hittite, this *-i-* was replaced, likely in analogy to unextended forms of *ye/a-* stems, by *-iya-*<sup>182</sup>. The stems *ispiyanu-* and *miyanu-* (instead of expected *\*ispinu-* and *\*minu-* from *ispai/i-* and *mai/i-*) are likely to have been formed in analogy to the new stems like *kartimmiyanu-*.

*Istappinu-* may be derived from an unattested *\*\*istappiya-*, cf. the presence of *-iya-* in *taruppiyanu-* from *tarupp-* (impf. *tarrupiesk-*, also *taruppiyahh-*). On the other hand, *-i-/iya-* seems sometimes to have been dropped in derivation, cf. *tekkussanu-* from *tekkussiye/a-*, *samesanu-* from *samesiye/a-* or *zappanu-* from *zappiye/a-*. However, these can hardly be explained by syncope, as *-i-/iya-* is preserved in many other verbs. More likely, the parent verbs had bare stems besides *ye/a-* stems, of which only the latter is attested, while the former was the derivational basis for the *nu-* verbs.

**4.7** The amount of *nu-* verbs derived from nouns is limited. Besides hapax *\*hatugatarnu-* ‘to make formidable’ (KAL-*tarnuskanzi* in KBo 12.109 7), there is *esharnu-* ‘to make bloody, red’; the latter, however, must be of Proto-Anatolian age since this stem is also reflected in CLuw. *āsharnummainzi*. Possible denominatives are

<sup>181</sup> A plain *-i-* is sometimes found in the imperfective stems of the *ye/a-* verbs: *ḥa-az-zi-iš-k[án-zi]* KBo 25.35+ II 5 OS (*hazziye/a-* ‘to pierce’) vs. *ḥa-at-ri-eš-ke-ez-zi* KBo 22.1 Rs. 23 OS (*hatrai-* ‘to write’). Is it the same morphonological variant?

<sup>182</sup> In this group *katkattinu-* and *lahlahhinu-* are the only verbs never show *-iya-* even in the NS copies; both words have a full reduplication of the root and are used in hippological texts, which were generally compiled in Middle Hittite. Both of these factors could contribute to the retention of *-i-*.



also *huntarnu-*, *nahsarnu-* and *nuntarnu-*, though these stems may be deverbal as well. Note that *nu*-verbs are derived from the strong stem of the nouns.

**4.8** Many more *nu*-verbs have been derived from adjectives. Typically, those were *i*-stem adjectives (e.g., *sallanu-* ‘to bring up’ from *salli-* ‘big’) and *u*-stem adjectives (e.g., *dassanu-* ‘to make strong’ from *dassu-* ‘strong’), but also *a*-stem adjectives (*halluwanu-* ‘to put down (deep), lower’ from *halluwa-* ‘hollow, empty’, *marsanu-* ‘to desecrate’ from *marsa-* ‘unholy’ and perhaps *maninkuwanu-* ‘to bring near?’ from *maninkuwa-* ‘near’ and *hatuganu-* ‘to terrify’ from *hatuga-* ‘terrible’) and even *ant*-stem adjectives (*warganu-* ‘to make fat’ from *wargant-* ‘fat’). It is not always possible to tell whether a *nu*-verb has been derived from an adjective or a verb. For instance, *parganu-* may have been derived either from *parku-* ‘high’ or from *park-* ‘to rise, raise’, *hatuganu-* – from *hatuga-* ‘terrible’ or from *hatuk-* ‘to be terrible’ and *hadganu-* – either from *hatk-* ‘to close, shut’ or from *hatku-* ‘tight, straight’. But at least in the case of *parganu-* and *hadganu-*, adjectival derivational basis appears more plausible semantically, see the respective entries.

**4.9** It is sometimes claimed that Hittite *nu*-verbs derived from *u*-stem adjectives are in fact formed via the insertion of *-n-* before the final *-u-* of the stem (e.g., Koch 1980). However, *i*-stem adjectives also dropped the stem final *-i-*, cf. *sallanu-* ‘to raise, bring up’ < *salli-* ‘big’ or *parkunu-* ‘to cleanse’ < *parkui-* ‘clean’. Theoretically, verbs like *sallanu-* or *palhanu-* ‘to broaden?’ could go back to *\*sallayanu-* and *\*palhayanu-*, since intervocalic *-y-* was regularly lost (see Melchert 1984: 31ff.); nevertheless, we do not see this *-i-* in the *nu*-verbs derived from *dankui-* (e.g., *da-an-ku-wa-nu-uš[-ke-et]* KBo 47.4 3 MS), *parkui-* (e.g., *pár-ku-nu-uz-zi* KBo 6.2 III 33, 35 OS) or *warhui-* (e.g., *wa-ar-ḫu-nu-wa-an-te-eš* KUB 13.24 16 MH/NS), though *-i-* in this environment should have been preserved, cf. *huinu-*. Therefore, *-nu-* replaced the final *-i-* of the adjective rather than was added to it, and it is preferable to view the derivation of *nu*-verbs from *u*-stem adjectives in similar terms – *-nu-* replaced the final *-u-* of the adjective. This replacement, however, did not involve *a*-stem adjectives, as the final

*-a-* is preserved in *halluwanu-*, *maninkuwanu-* and *hatuganu-*. On the consistent spellings like *sal-la-nu-* with an *-a-* between the root and the suffix *-nu-* see 4.10 below.

Derivation involving replacement of the final vowel makes *nu*-verbs a part of the Hittite Caland system, which includes also factitives in *-ahh-*, statives in *-ē-*, fientives in *-ēss-*, as well as adjectives in *-i-*, *-u-* and *-ant-* among others, see further Hoffner, Melchert 2008: 51 and Oettinger 2014. This peculiar type of derivation was well established already in PIE, see the discussion in Rau 2009. However, the Hittite set of morphemes involved in the Caland system differs partially from those of other Indo-European languages; e.g., Hittite factitives were derived with suffixes *\*-eh<sub>2</sub>-*<sup>183</sup> and *-nu-*, whereas Sanskrit for that purpose employs the suffix *-āya-*, nasal infix or full grade thematic stems, cf. Rau 2009: 141ff. Rau (ibid. 157ff.) assumes that nasal infixes were part of the Caland system in PIE; *-nu-* seems to have replaced the infix in the Hittite Caland system just as *harganu-* ‘to perish’ replaced *harnink-* ‘id.’ after the infixation ceased to be productive. See further 4.14.

**4.10** It is not clear whether the *-a-* between the root and the suffix in some *nu*-verbs is phonetically real. When *-nu-* is attached to a root ending in a consonant, *-a-* between the root and *-nu-* must be graphic, as in *assanu-* besides *asnu-*, *za-lu-uk-nu-* besides *za-lu-ga-nu-* or in *hassiganu-* besides *hassiknu-*. Cf. also rare *pa-aḥ-ḥa-aš-nu-* besides common *pa-aḥ-ša-nu-* and *pa-aḥ-ḥa-aš-ša-nu-*. Still, there are verbs where there is always a vowel between the root and the suffix, e.g., *asisanu-* ‘to settle’, *sallanu-* ‘to bring up’ or *harganu-* ‘to destroy’. In these verbs, the *-a-* is likely to be phonetic, otherwise we would expect at least a few spellings like *\*\*a-ši-iš-nu-*, *\*\*sal-nu-* and *\*\*ḥar-ak-nu-* (cf. consistent *ḥar-ak-mi* and *ḥar-ak-zi* of the parent verb *hark-* ‘to perish’). The only exception is *pār-ak-nu-ut* from *parganu-* ‘to make high’ in KBo 32.13 II 8 (MH/MS, Song of Release, cf. Neu 1996: 4). In the case of *harganu-*, *linganu-* etc., this *-a-* likely prevented the loss of velar in such a cluster, cf. *tarna-* ‘to release’ < *\*tarKna-* (see the respective entry). In *sallanu-*, the epenthetic vowel was

<sup>183</sup> This suffix is also a part of the Latin Caland system, cf. Rau 2009: 138.

probably used to break up the cluster /ln/. However, *-anu-* in *asisanu-* is difficult to account for; perhaps, *-anu-* is the result of reanalysis of epenthetic *-a-* + *-nu-* in verbs like *sallanu-* and *linganu-*.

**4.11** Besides abstract nouns in *-mar*, the number of derivatives from *nu*-verbs is very limited. There are two unclear formations in *-(u)la:* in KUB 12.63+ (OH/MS)) we have *da-lu-uk-nu-la* obv. 30 and *pár-ga-nu-la* obv. 31, which are discussed in detail in Rieken 1999: 465ff., who suggests three possible explanations for these forms. She also adds to this group <sup>GADA</sup>*kazzarnul-* n., a kind of cloth, which seems to be derived from a verb *\*kazzarnu-* <*\*kser-nu-l-*, cf. Gr. ξερών ‘dry land (acc.)’ (ibid. 467), but cf. Kloekhorst 2008: 466 who argues that this is phonetically improbable. There are also an extended stem *harnuwai-* and two deverbatives in *-ma(i)-*, *enumai-* ‘to make warm or hot?’ and *esharnumai-* ‘to make bloody’. The name of a beverage *marnuwa(nt)-* and adjective *marnuwala-* ‘(?)’ may have to be derived from *marnu-* ‘to steep, melt, dissolve’ (so HED 6: 43). Beside these forms, there is a derivative noun *hasnupalla-* ‘midwife’ in KUB 30.29 2, 6, see Güterbock 1946: 60. Otherwise, derivatives are only attested for those stand-alone *nu*-verbs that have no clear parent verb, e.g., *annanuhha-* (adj.) ‘trained (?)’ and <sup>(KUŠ)</sup>*annanuzzi-* (c.) ‘halter (?)’ for *annanu-* ‘to train’, <sup>LUJ</sup>*arnuwala-* (c.) ‘deportee’ for *arnu-* ‘to make go, deliver’ and *unuwasha-* c. ‘adornment’ for *unu-* ‘to adorn, lay the table’.

**4.12** Beside *-nu-*, there is another factitive/causative suffix in Hittite, namely, *-ahh-*. It is also of PIE origin, as can be seen from the comparison of Hitt. *newahh-* ‘to renew’ with Lat. *novāre* ‘to renew’ and Gr. νεάω ‘to plough up’; this suffix was used to form denominative verbs (Sihler 1995: 513ff.)<sup>184</sup>. There are several roots that have causatives/factitives both in *-nu-* and *-ahh-* with little difference in meaning (where it can be established at all), e.g., *kartimiyanu-* ‘to anger’ and *kartimiahh-* ‘id.’ from *kartimiya-* ‘to be angry’, *maninkuwahh-* ‘to come near; make short’, *maninkuwantahh-* ‘to make short’ and *maninkuwanu-* ‘to bring near?’ from *maninkuwant-* ‘near’,

<sup>184</sup> According to Sasseville (2015), this suffix resulted from reinterpretation of nominal stems in *\*-eh<sub>2</sub>*.

*dankuwanu-* ‘to make black’ and *dankuwahh-* ‘id.’ from *dankui-* ‘dark’, *taruppiyanu-* ‘to bring together, collect’ and *taruppiyahh-*, *tarupahh-* ‘id.’ from *tarupp-* ‘to collect’, *wastanu-* ‘to sin’ and *wastahh-* ‘id.’ from *wasta-* ‘to sin’ or *wastai-* ‘sin’. Finally, besides *tepnu-* there is also *tepawahh-* derived from *tēpu-*. For the meaning, cf. the following contexts: *ma-a-an-ma-aš-ta* ZI<sup>TUM</sup> DINGIR<sup>LI</sup>[<sup>M</sup> *ku-i*]š TUKU.TUKU-*ya-nu-zi* “If [som]eone angers the soul of go[d]” KUB 13.4 I 34 MH/NS (s. Taggar-Cohen 2006: 44, 71) and *ka]rdimiyahhanzi=an=kan kuyes* “those who anger him” KUB 35.146 II 13 MS (HED 4: 111). In most other cases, one (or both) stems are attested once or twice, often in a damaged context, so it is difficult to see a semantic difference between them even if there is any. As for their chronological distribution, sometimes it is the *ahh-*stem which is the older and better attested one (*maninkuwahh-*), sometimes it is the *nu-*stem (*wastanu-*, *tepnu-*), and there are cases in which both verbs seem to be of the same age and frequency (e.g., *kartimiyanu-* and *kartimiahh-*), see the respective entries.

Factitives in *-ahh-* may be derived from nouns, adjectives or verbs. Contrary to what is stated in Hoffner, Melchert 2008: 175f. and Kloekhorst 2008: 164, deverbal formations do exist. The verbs *kartimmiahh-* ‘to anger’ and *kururiyahh-* ‘to wage war on’ are based on *ye/a-*verbal stems *kartimmiya-* ‘to be angry’ and *kururiya-* ‘to be hostile’, respectively. *Taruppahh-* and *taruppiyahh-* seem to be based on *tarupp-* ‘to collect, unite’, and there is no indication that there was a nominal stem *\*tarupp(iy)a-*. The verbs *armahh-* ‘to make pregnant’, *kappilahh-* ‘to get in a fight(?)’ and *markistahh-* ‘to take by surprise(?), make a surprise attack(?)’ may have been derived from unattested nominal stems *\*arma-*, *\*kappila-* and *\*markista-*, but they may also be based on the attested verbs *armae-* ‘to be pregnant’, *kappilae-* ‘to pick a fight’ and *markistae-* ‘to take by surprise(?)’. Finally, *sakiahh-* ‘to indicate, signal’ may be derived either from *sakiya/e-* ‘to give a sign, omen’ or from *sagai-* ‘omen’ c., *sallakartahh-* ‘to offend someone through presumptuous behaviour’ – either from *sallakartai-* ‘to offend someone through presumptuous behaviour’ or from *sallakarta-* ‘presumptuousness’ n.(?), *siuniyahh-*<sup>ttari</sup> ‘to be hit by disease (through divine agency)’ – either from *siuniye-*<sup>?</sup> and *wastahh-* ‘to sin, offend’ – either from *wasta-* ‘to sin’ or

from *wastai-* ‘sin’. The *ahh*-stems became very productive in Hittite (cf., e.g., occurrence of parallel *ahh*-stems next to established *nu*-stems, as in the case of *tepawahh-* and *tepnu-* ‘to diminish’), and it is not surprising that *ahh*-stems, which originally had been derived from adjectives, started to be derived from verbs as well.

There is a significant distinction in derivation of *-ahh-* and *-nu-* verbs from nominal *i-* and *u-* stems. *Ahh*-factitives usually preserve the stem vowel, cf. *suppiahh-*, *idalawahh-* etc., while *nu*-verbs usually delete it, cf. *sallanu-* from *salli-* ‘big’, *parkunu-* from *parkui-* ‘clean’.

What was the original distribution of *-ahh-* and *-nu-* suffixes? Factitives in *-ahh-* are commonly made to adjectives in *-a-*, *-ant-* and *-i-*. They are less frequent with adjectives in *-u-*. The *ahh*-factitives made to verbs are rather late. In the OS texts, we find *allappahh-* ‘to spit’, *inarahh-* ‘to make strong’, *isiyahh-* ‘to announce’, *kuleyawahh-* ‘to calm down (mid.)’, *maniyahh-* ‘to instruct’, *suppiyahh-* ‘to make clean’ and *dasuwahh-* ‘to blind’. When the underlying stem is known, it is usually an *i*-stem adjective (*suppi-*), *ant*-stem adjective (*dasuwant-*) or an *a*-stem adjective or noun (*\*innara-*).

On the other hand, *nu*-verbs attested in the OS texts are usually made to verbs (*arnu-*, *huinu-*, *inu-*, *isparnu-*, *karinu-*, *pahsanu-*, *pittinu-*, *saminu-*, *sasnu-*, *tittanu-*, *wahnu-*, *zainu-*, *zanu-*). Nevertheless, there are also a few derivatives from *i-* and *u-* stem adjectives (*parkunu-*, *sallanu-*, *tassanu-*); therefore, the suffix *-nu-* was added to *u-* and *i-* stem adjectives as well as nouns (cf. *esharnu-* and CLuw. *asharnu-*) already in Old Hittite.

**4.13** In Old Hittite, *nu*-verbs were still mostly deverbative, while *ahh*-verbs were still denominative. This observation matches well their distribution in other ancient Indo-European languages. However, already in Proto-Anatolian, *-nu-* started to be added to nouns, with *esharnu-* being the most illustrative example. The derivation of *nu*-verbs from adjectives is also likely of Proto-Anatolian date, since there are deadjectival *nu*-verbs in Luwian as well, see 4.17. Therefore, the suffix *-nu-* must have joined the Hittite Caland system (for which cf. 4.9 and Hoffner, Melchert 2008: 51)

not later than at that period. The verbal stems in *-nu-* may have replaced PIE infixed stems that were part of the Caland system in PIE (Rau 2009: 157ff.). The starting point of this process could be that in Proto-Anatolian *nu*-verbs were often made from the verbal roots that also had an adjective in *-u-* beside them. At some moment<sup>185</sup>, *nu*-verbs were reanalyzed as built to *u*-stem adjectives, and since *nu*-verbs became very productive, this derivation soon expanded to *i*-stem adjectives (with the replacement of the stem-final *-i-*, just as with *-u-*) and later to other stems<sup>186</sup>. The problem with this scenario is that there are not too many reliable examples of a verb having both a *u*-stem adjective and a *nu*-stem deverbative. A likely template could be *\*ar-<sup>zi</sup>* ‘to rise, move’ (Hitt. *ar-<sup>ita</sup>* ‘to stand’, *arai/i-* ‘to rise, lift’), *\*ar-u-* ‘high’ (Hitt. *aru-* ‘high?’, CLuw. *aru-* ‘high’), and *\*ar-nu-* ‘to move’ (Hitt. *arnu-* ‘to move (tr.)’). As for other possible cases, *tepnu-* is likely to be a Middle Hittite formation (see the respective entry), while *parganu-* is derived from *parku-* ‘high’ rather than from *park-* ‘to lift’ (to which a true causative *parkiyanu-* is built). A possible example could be *huisu-* ‘raw’ and *huisnu-* ‘to rescue, keep alive, spare’ that both seem to have been independently derived from *huis-* ‘to live, survive’; due to the semantic difference, *huisnu-* is hardly derived from *huisu-*. However, the derivational history of *huisnu-* is not exactly clear. The verb *huis-* is attested only in NS copies of Old Hittite texts, and is likely to be a back-formation from *huisnu-*, according to Weitenberg 1984: 109, cf. also the respective entry.

Steer (2013-14) assumes that in PIE the suffix *\*-neu/-nu-* was reanalyzed as *\*-n(e)-u-* when a cognate *u*-adjective was available and argues that other infixed stems were created by analogy to original roots that had derivatives in *\*-u-* and *\*-neu-* next to them. However, PIE *u*-stem adjectives show no specific affinity to verbal *nu*-stems. In Sanskrit, *u*-adjectives often occur along with the following factitive or causative

<sup>185</sup> Yakubovich (“The genesis of the Indo-European verbal suffix *-neu/-nu-*” forthc.) argues that *\*-neu/-nu-* presents are likely to have been deadjectival factitives already in PIE. However, in Old Hittite, deverbative *nu*-verbs significantly outnumber the denominal ones; in Luwian we have a similar distribution, see 4.17. Therefore, I doubt the original factitive nature of *\*-neu/nu-*; *\*-eh<sub>2</sub>-* is a better candidate to be employed for this function. Furthermore, PIE *u*-stem adjectives show no specific affinity to verbal *nu*-stems, see below.

<sup>186</sup> Similarly, Oettinger 2014; I doubt, however, that *-n-* in, e.g., PA *\*arnu-* was reanalyzed as an infix inserted into *\*aru-* ‘high’, since in case of adjectives in *-i-* one would expect *\*\*sall(a)ni-* instead of actual *sallanu-*.

formations: causatives in *-áya-*, full-grade thematic stems and infixed stems<sup>187</sup>. In Anatolian, *nu*-factitives were a very productive type, so they often occurred beside *u*-adjectives, made from the same root.

Both *nu*-verbs and *ahh*-verbs became very productive and started to expand to the roots that originally lacked them. I think that the pairs like *kartimiyanu-* and *kartimiahh-* are the result of this expansion. Cf. for a similar situation verbs that have both *-wanzi* and *-anna* as infinitives, e.g., *ses/sas-* ‘to sleep’ (*sasanna* HKM 46 rev. 21 MH/MS, KBo 10.20 IV 10 OH/NS; *sesuwanzi* KUB 5.1 I 38, 61 NH, KUB 13.4 III 2, 6, 30 pre-NH/NS).

**4.14** The function of the *nu*-verbs is generally described as causative/factitive, but while this definition suits many deadjectival *nu*-verbs and *nu*-verbs made to intransitive verbs, it is not universally applicable. First of all, there are several *nu*-verbs that are intransitive<sup>188</sup>. These are the following: *huntarnu-* ‘to grunt’, *nuntarnu-* ‘to hurry’, and *wastanu-* ‘to sin’. *Hinganu-* ‘to make someone bow, bow’, *wahnu-* ‘to turn, wave’ and *zaluganu-* ‘to postpone, delay’ are also sometimes intransitive, the latter only when used along with *nuntarnu-*. Both attested forms of *hatnu-* ‘to dry out’ may be intransitive. *Lalukkesnu-* ‘to give light to’ is generally used with a dative, and *lukkanu-* ‘to pass a night’ is once used with an ablative (GE<sub>6</sub>-za). The majority of these verbs are deverbatives, but *nuntarnu-* and *huntarnu-* could have been derived from nouns, *\*nuntar* and *\*huntar* respectively.

Another problem with the putative causative/factitive function of the suffix *-nu-* is that there are many *nu*-verbs derived from already transitive verbs, and only a handful of them are in fact causative in a strict sense: these are *zainu-* ‘to make cross’,

<sup>187</sup> E.g., Skt. *svādú-* ‘sweet’ and Skt. *svadáyati* ‘to season sweeten’ or Skt. *pr̥thú-* ‘broad wide’ and Skt. *pratháyati* ‘to make spread out’. For more examples of *u*-stem adjectives paired with *\*-éye*-causatives or infixed stems in Indo-Iranian and PIE, see Rau 2009: 170ff. and 183f.

<sup>188</sup> Note that there are also possible intransitive factitives in *-ahh-* – *kururiyahh-* ‘to become hostile (towards (dat.))’, *liluwahh-* ‘to make haste’, perhaps *sakiyahh-* ‘to give a sign’ (in some contexts, e.g., KUB 14.4 IV 24-25 *nu* <sup>D</sup>UTU-*us sakiyahta* MUNUS.LUGAL=*ma* [...] *memisket* ‘The Sun(god) gave a sign. The queen was saying [...]’, s. CHD Š: 43), *kappilahh-* ‘to get into fight’ (the only finite form is attested in a fragmentary context) and *nakkiyahh-* ‘to become a concern for someone (dat.), bother (dat.)’ (the intransitivity of the attested finite form, 3sg. pret. midd. [*n*]akkiyahtat in KBo 4.6 obv. 26, may well be conditioned by the middle voice).

*parkiyanu-* ‘to make/let rise’, *dammeshanu-* ‘to punish’ and *hassanu-* ‘to bring to birth’.

Often we do not see any difference between the meaning of the derived *nu*-verb and of the original verb, e.g., *hink-* and *hinkanu-* ‘to give, grant’, *karp-* and *karpanu-* ‘to pick, collect’. It does not mean, however, that there was no difference; rather we are not able to determine it, due to scarce attestation and/or poorly preserved contexts of certain *nu*-verbs. In some cases, the meaning of the *nu*-verb slightly differs from the meaning of the original verb. This is the case when the objects of the *nu*-verb differ from those of the parent verb, cf. *ispar-* ‘to spread (cloth, nets)’ and *isparnu-* ‘to spread out, sprinkle (water)’, *pars(iya)-* ‘to break, crumble (bread)’ and *parsanu-* ‘to break up, split (earth)’. This situation resembles the semantic relations between *huek-* ‘to stab, slaughter’ and *hunink-* ‘to break’.

While in many of these cases it is difficult to establish the semantics of the suffix *-nu-*, in some verbs it is likely to have a function different from causative/factitive. The difference between *pars(iya)-* ‘to break, crumble (bread)’ and *parsanu-* ‘to break up, split (earth)’ may lie in the intensity of the action. In *pahsanu-* ‘to protect, take care of, obey’ and *wastanu-* ‘to sin’, *-nu-* is likely to have a terminative or telic function, as these verbs refer to specific situations while their basic verbs usually refer to general situations<sup>189</sup>.

A terminative function for *-nu-* has already been suggested by several scholars. The terminative-perfective character of *arnuzi* in KBo 3.6 IV 60 [GU]<sub>4</sub><sup>HI.A</sup>=ŠU *ētreskezzi n=us=san parā hameshanda* (61) *arnuzi* ‘he must feed his cattle, and bring them through to the following spring’, is assumed by Hoffner and Melchert (2002: 380) who argue that *arnuzi* marks ‘the end of the period during which the action *ētreske-* transpires’. Independently, in her study of transitivising strategies in Hittite,

<sup>189</sup> The most convincing example comes, in my opinion, from the Bronze tablet, where *pahsanu-* is used in line II 35 in the context of a specific situation, whereas *pahs-* refers to a continuous action.

II 36 <sup>m.D</sup>LAMMA-as=ma=mu *apēdani mehuni pahhassanut* ‘(Mein Vater hate mich zu jener Zeit noch nicht zur Königswürde bestimmt.) Aber Kurunta zeigte mir zu jener Zeit (schon seine) Treue.’ (Otten 1988: 16f.)

Cf. II 49 *nu=mu* <sup>m.D</sup>LAMMA *pahhasta MAMETE*<sup>MES</sup>=mu *kue peran* (50) *lenqan harta nu=kan ŪL kuitki wahnut* ‘Und Kurunta hielt mir die Treue; die Eide, die er vor mir geschworen hatte, (davon) brach er keinen einzigen’ (Otten 1988: 18f.) For more contexts see the respective entries in 4.1.



Luraghi (2012: 10f., 16) argued that adding telicity as well as transitivity was the original function of derivational causatives (including *nu*-verbs).

If the suffix *-nu-* could express intensity or telicity alone, this could explain the intransitivity of certain *nu*-verbs like *huntarnu-* ‘to grunt’ or *nuntarnu-* ‘to hurry’.

**4.15** As we have seen, the suffix *-nu-* cannot be described as purely causative/factitive. It can also be telic, and for some verbs we may assume an intensive meaning. It is not easy to grasp, but an intensive meaning may be present in *kissanu-*, describing ritual combing, or in *isparnu-* ‘to spread out, sprinkle?’. The latter is derived from *ispar-* ‘to spread out’, but unlike its basic verb, *isparnu-* often uses water as its object. Crosslinguistically, causative formations often have parallel functions, and often one of these is intensive, see, e.g., Nedjalkov, Silnickij 1973: 19f., Kouwenberg 1997: 256f., Kulikov 1999: 24ff. and Kulikov 2001: 894, who gives the following example from Arabic: ‘*alima* ‘learn’ – ‘*allama* ‘teach’ but *daraba* ‘hit’ – *darraba* ‘hit strongly’<sup>190</sup>, which shows that in Arabic the exact function of the derived stem is lexically conditioned. A crosslinguistic survey of non-causative usages of causatives by Aikhenvald (2011) shows that causative markers occasionally have other functions as well, the first of which is intensive. Cf. further 7.2.3.

**4.16** Summing up, *nu*-verbs form one of the largest verbal classes in Hittite. The suffix *-nu-* was very productive throughout the history of Hittite, and *nu*-verbs could be derived from both verbs and adjectives. The suffix is of PIE origin, and is well attested also in other Anatolian languages, but there is only one verb in Hittite that certainly goes back to a PIE formation: *arnu-* ‘to move’ (as for *tepnu-*, see the respective entry). *Esharnu-* and *huinu-* have common Anatolian status. There may also be some other *nu*-verbs of Anatolian or even Proto-Indo-European age, but there are no securely established counterparts for them in other IE languages. The vast majority of *nu*-verbs were formed only within Hittite.

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<sup>190</sup> Cf. also early Vedic, where both causatives and iteratives could be formed with the suffix *-áya-*. Note that Jamison (1983: 213) and Lubotsky (1989: 112) assume different origin for causatives and iteratives in *-áya-*; Kulikov (2008: 339f.) argues for an original polysemy of this morpheme.

**4.17** There are quite a few *nu*-verbs in Luwian as well. What follows is a list of *nu*-verbs in Cuneiform and Hieroglyphic Luwian texts which I have collected from Melchert's 1993 *Cuneiform Luvian Lexicon*, a vocabulary in Payne's 2010 *Hieroglyphic Luwian* as well as vocabularies from the Annotated Corpus of Luwian Texts (ACLT) at <http://web-corpora.net/LuwianCorpus/search/>. When translations of Luwian verbs given by these sources differ, I give both variants.

Cuneiform corpus:

*anzanu*- '?'<sup>191</sup>, *arannu(wa)*- either 'to grant, bestow' (Melchert 1999) or 'to remove' (ACLT); *ārlanuwa*- 'to grant, bestow' (Poetto 1997, Melchert 1999) or 'to relocate' (ACLT); *asharnu*- 'to bloody', *halalannussa*- 'to purify'; *hapanussa*- 'to sprinkle?' (ACLT); *huinuwa*- 'to cause to run', *kūnuwa*- '?'; *marhanuwa*- '?' ('brewed' in CHD L-N: 182); *palassarinuwa*- '?' (cf. CHD P: 62), *pastarnuwa*- (cf. *pastarnu*- in this chapter and CHD P: 210f.); *sarhanuwa*- '?' (cf. CHD Š: 251f.); *tarwanu*- '?'; *tumminuwa*- (cf. HEG T: 434); *urannu*- 'to make great'; *zantalānu*- 'to diminish' (used in the Bronze tablet as a synonym to *tepnū*-).

Hieroglyphic corpus:

\**ar(a)nuwa*- (CRUS+RA/I-*nuwa*-) 'to remove' (ACLT); *asunu*- '?' (ACLT); \**azzanu*- (AMPLECTI-*nu*-) 'to cause to embrace'; *hapanzanuwa*- 'to restrain?' (ACLT); \**happarinuwa*- 'to deliver', *haranu*- (Payne) or *hadinu*- (ACLT) 'to make speak'; *hazanusa*- '?'; *hinu(wa)*- 'to cause to pass' (Payne) or 'to move' (ACLT); *hwapasanu*- 'to cause harm'; *hwinuwa*- 'to make run'; *isanu(wa)*- 'to make sit; settle'; *kinuwa*- 'to burn up'; *laranu*- 'to cause to prosper'; *luhanuwa*- 'to burn down'; *marnuwa*- (DELERE-*nuwa*-) 'to destroy'; \**musnuwa*- 'to satisfy' in *musnuwant(i)*- 'satisfying'; *panuwa*- 'to make drink' (Payne) or 'to let in' (ACLT); *parinuwa*- 'to send forward'; *sarnuwa*- 'to lay waste'; *s(a)tinuwa*- 'to extinguish'; *tanuwa*- 'to make stand, set up'; \**tarhuwanuwa*- (TONITRUS-*wanuwa*-) 'to treat like Tarhunt-'; *tarzanuwa*- 'to turn (trans.)'; *unanu*- 'to teach'; *ununu*- '?'; \**uranuwa*- (MAGNUS-*ranuwa*-) 'to make great'; *usanuwa*- 'to bless'; \**walanu*- (MORI-*nu*-) 'to kill';

<sup>191</sup> Ph. Houwink ten Cate suggested the translation 'launched', see Hoffner 2009: 394<sup>335</sup>.

*waliyanu-* ‘to redeem’; *wasarnu-* ‘to treat favourably’; *wa*-\*336-*nu-* ‘to wish’; *zahanuwa-* ‘to make attack’; PUGNUS.PUGNUS-*lanu(wa)-* ‘to uphold’.

While many Luwian verbs still lack a reliable interpretation, it is clear that most of them have no cognates in Hittite. Only CLuw. *asharnu-* ‘to make red, bloody’, CLuw. and HLuw. *huinu-* ‘to make run’ and perhaps CLuw. and HLuw. *aran(n)nu-*, if it means ‘to remove’, have Hittite counterparts, namely, *esharnu-*, *huinu-* and *arnu-* respectively. HLuw. *isanuwa-* and *tanuwa-* are made to the same roots as *asesanu-* ‘to settle, install’ and *tittanu-* ‘to install’, but different stem formation makes it clear that these verbs have been derived independently. Also of interest is *zahanuwa-* ‘to make attack’ that is built to a verbal root attested also in Hitt. (*zahh-* ‘to hit’, *zahhai-* ‘battle, war’). The verb *pastarnu-* was evidently borrowed in Hittite. The low number of correspondences between Luwian and Hittite *nu*-verbs prompts the conclusion that the majority of these verbs were formed after the split of Hittite and Luwian.

Similar to the situation in Hittite, Luwian *nu*-verbs are derived from both verbs and adjectives, and there seems to be at least two denominal verbs, CLuw. *asharnu-* ‘to make bloody’ from *āšhar* ‘blood’ (cf. Hitt. *isharnu-*) and *wassarnu-* ‘to treat favourably’ from *wassar-* ‘favour, goodness’.

While the meaning of many Luwian *nu*-verbs is disputed and their derivational history is still unclear, they seem to be derived from other verbs more often than from adjectives, cf. the following deverbal stems: CLuw. and HLuw. *hwinuwa-* from *hwi(ya)-* ‘to run’ (cf. Hitt. *huinu-*), HLuw. *haranu-* (*hadinu-* in ACLT) from *hadi-* ‘to speak, proclaim’, HLuw. *hwapasanu-* from *hwapasa-* ‘to harm’, HLuw. *isanu(wa)-* ‘to make sit; settle’ from *asa-* ‘to sit, dwell’, HLuw. *laranu-* ‘to cause to prosper’ from *lara-* ‘to prosper’, perhaps HLuw. *marnuwa-* ‘to destroy’ from \**mar-* (cf. Hitt. *mer/mar-* ‘to perish’, *mernu-* ‘to cause to disappear’), HLuw. *panuwa-*, if the meaning is ‘to let in’, from *pa-* ‘to go’, HLuw. *s(a)tinuwa-* ‘to extinguish’ from *s(a)ti-* ‘to quench’, HLuw. *tanuwa-* from *ta-* ‘to stand’, HLuw. *tarzanuwa-* ‘to turn (trans.)’ from *tarza-* ‘to turn (intrans.)’, HLuw. *unanu-* ‘to teach’ from *un(a)i-* ‘to know’, HLuw. *walanu-* ‘to kill’ from *wala-* ‘to die’;

Deadjectival *nu*-stems in Luwian are the following: CLuw. *arannu(wa)*- from *aru*- ‘high’, *ārlanuwa*- from \**arla*- ‘owned, one’s own’<sup>192</sup>, CLuw. *halalannu*- from *halal(i)*- ‘pure’, CLuw. *urannu*- and HLuw. *uranuwa*- from *ura*- ‘great’, perhaps CLuw. *zantalanu*- from \**zantal(i)*- ‘lower’ (ultimately from *zanta* ‘down’).

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<sup>192</sup> So Melchert 1999: 243. According to ACLT, *arlanuwa*- means ‘to relocate’; if so, it is related to HLuw. *arla*- ‘place’ and is a denominative formation.

**5.1** According to one of the historical explanations of the imperfective suffix *-anna/i-*, it is considered to be a combination of an infix and several suffixes, see further 5.9. Therefore, it will be appropriate to examine the formal and semantic properties of this suffix and various analyses that have been suggested for it.

**5.2** The imperfective aspect in Hittite can be explicitly marked with the following three suffixes: *-ske/a-*, *-anna/i-* and *-ss(a)-*, with *-ske-* being by far the most common. More than twenty verbs have an imperfective stem in *-anna-*, and four verbs form their imperfective stem with *-ss(a)-*. Some verbs have more than one imperfective stem, e.g., *walhanna-* and *walhiske-* ‘to strike’ (on the distribution of these stems see below), and sometimes *-ske-* is added to another imperfective suffix, e.g., *huittiyanniskemi* KUB 24.14 I 26 (see, e.g., Hoffner, Melchert 2008: 175).

There have been attempts to find functional or semantic difference between these suffixes. For instance, *anna*-imperfectives have been called duratives, and formations in *-ske/a-* – inchoative or iterative (Kronasser 1966: 556 and n.1). Special attention was paid to the verb *walh-* ‘to strike’, since it has many forms both with *-ske-* and *-anna/i-*. For instance, Otten (1951: 227<sup>7</sup>) argued that the difference between *walahzi* in ABoT 1.7 V 5 and *walhannai* in V 15 was the plurality of the object in the latter case. On the contrary, Oettinger (1992b: 142ff.) argued that *walhiske-* was an iterative formation whereas *walhanna/i-* was an intensive one. However, the distribution of imperfective variants for *walh-* turns out to be diachronic: in Old Hittite originals we see only *anna/i*-imperfectives (e.g., *walhannianzi* KBo 17.1+ II 36', KUB 60.41 II 8') and it is only in Middle Hittite that forms with *-ske-* start to appear, initially added to *-anna-*, cf. *[wa]alhanniskenenun* KUB 14.1 rev. 87 (MH/MS, Madd.) and Hoffner, Melchert 2008: 322.

**5.3** Stems extended with the suffixes *-ske-*, *-anna/i-* and *-ss(a)-* all had the same functions, namely: a) progressive, b) durative, c) iterative, d) habitual, e) gnomic, f) distributive, h) inceptive<sup>193</sup> (s. Hoffner, Melchert 2008: 318f.).

**5.4** The choice of an imperfective suffix seems to be lexically conditioned. The following verbs make imperfectives in *-anna/i-*<sup>194</sup>: *hallanna-* ‘to lay waste’ or ‘to trample’ (*hal-la-an-ni-ya-at-ta-ri* KUB 4.3 obv. (9) NS; *hal-la-an-ni-an-zi* Bo 3276 obv. 6 MS; *hal-la-an-ni-eš-k[e-ez-zi]* KBo 19.112 17 MH/NS), *haluganna-* ‘to announce’ (KUB 27.29+ III 17 *ha-lu-ga-an-ni-iš-ke-e[z-zi]* MH/ NS)<sup>195</sup>, *hattanna-* ‘to pierce’ (*ha-at-ta-an-na-i* KBo 13.13 obv. 4 OH/NS; *ha-at-ta-an-n[i-an-zi]* KBo 20.20 obv. 6 OS; *ha-at-ta-an-ni-er* KBo 3.34 I 4 OH/NS; *ha-ad-da-an-ni-eš-ke-u-en* KBo 18.54 rev. 16 MS?), *?huganna-* ‘to conjure’ (*hu-u-ga-an-ni-ya-u-wa-an-zi* KBo 64.56 rev. 6 NS)<sup>196</sup>, *huganna-* ‘to butcher’ (*hu-ga-an-ni-wa-an* KBo 21.25 I 44 OH/MS), *hullanna-* ‘to strike, defeat’ (*hu-ul-la-an-ni-wa-an* KBo 32.19 III 42 MH/MS), *hu(i)ttiyan-na-* ‘to draw, pull’ (e.g., *hu-ut-ti-an-na-i* KBo 17.18 II 12 OS, *hu-it-ti-ya-an-ni-iš-ke-mi* KUB 24.14 I 26 NS, 15+ instances), *iyanna-* ‘to go’ (e.g., *i-ya-an-na-aḫ-ḫé* KBo 17.4 II 8 OS, 30+ instances), *ishuwanna-* ‘to throw, pour’ (*iš-hu-u-wa-an-na-aḫ-ḫi* KUB 7.5 II 30 MH/NS; *iš-hu-wa-an-na-aḫ-[ḫi]* KUB 12.44 III 17 NH), *iskallanna-* ‘to slit, tear’ (*iš-kal-la-an-ni-an-tu-uš* KUB 58.63 II 2 NS), *iskaranna-* ‘to sting, pierce’ (*iš-kar-ra-an-ni-an[-du]* KBo 8.35 II 21 MH/MS), *isparanna-* ‘to spread’ (*iš-pa-ra-an-na-i* KUB 57.83 IV 5 NS), *lahhiyan-na-* ‘to set out’ (*la-aḫ-ḫi-ya-an-ni-iš-ga-*

<sup>193</sup> The stem *parsanna/i-* ‘to break’ is often attested in subordinate clauses and is sometimes interpreted as a perfective formation, e.g.: KBo 2.15 IV with. dupl. KUB 25.14 IV 10: NINDA.x [ (kuin šepitt) (11) pâr-š[(i-ya-an-ni-iš-kán-zi)] “Das [...] Brot (aus) šepitt-, das sie wiederholt brechen (gebrochen haben)” (Nakamura 2002: 200); KBo 5.1 I 31 *namma harnāu* UZU UDU NINDA<sup>HIA</sup>-ya kueus pâr-ši-ya-an-ni-iš-ke-et “Ferner nimmt er den Gebärstuhl, das Schafffleisch und die Brote, die er zerbrochen hat”, I 38 nu ŠA 4 UDU<sup>HIA</sup> UZU<sup>I</sup> NINDA<sup>HIA</sup>-ya kueus pâr-ši-ya-an-ni-iš-ke-et (39) n=aš A-NA DINGIR<sup>LIM</sup> EGIR-pa hingazi “Das Fett(fleisch) der 4 Schafe und die brote, die er zerbrochen hat” (Strauss 2006: 286ff.). In fact, *parsanna/i-* here has the progressive function and is to be translated with the present continuous rather than present perfect tense, e.g., “the bread he is breaking/crumbling”.

<sup>194</sup> The alleged stem *sipandanna/i-* is not included, since *ši-ip-pa-an-da-an-na-aš* (KUB 24.12 III 25) is to be read as *ši-ip-pa-an-da-an-<zi> na-aš* pace Yoshida 1991: 48, 50. Hoffner, Melchert 2008: 322 point to the existence of *-anna-* imperfectives for *talliya-* ‘to call’, regretfully without indicating its occurrence in texts.

<sup>195</sup> The verb *haluganna/i-* is supposed to be an imperfective to *\*halugai-* (an unattested denominative from *haluga-* ‘message’). HW<sup>2</sup> H: 82 inserts *haluganna/i-* to the entry for *haluganai-* ‘to announce’ (*ha-lu-ga-na-iz-zi* KUB 28.4 rev. III 10 OH/NS). While it cannot be completely excluded that *haluganniske-* is just a *ske/a-*imperfective to *haluganai-*, it is not likely, as double *-nn-* would be difficult to explain, cf. impf. *pî-i-ya-ni-iš-ke-nu-un* (KUB 14.15 IV 25 Murs. II) from *piyanāi-* ‘to reward’.

<sup>196</sup> See Oettinger 1979: 495 with note 96.

*u-e-ni* KBo 4.4 III 50 Murš. II), *piyanna-* ‘to give’ (*pí-ya-an-ni-wa-an* KBo 8.42 rev. 3 OS), *parhanna-* ‘to drive’ (*pár-ḫa-an-na-i* KBo 3.5 II 52 MH/MS), *parsiyanna-* ‘to break’ (e.g., *pár-ši-ya-an-na-i* KBo 20.4 IV! 6 OS, 30+ instances), *pessiyanna-* ‘to throw’ (*pé-eš-ši-ya-an-ni-eš-ke-ez-zi* KBo 24.47 III? 18 NS), *piddanna-* ‘to carry, pay’ (*píd-da-an-ni-iš* KBo 3.13 rev. 12 OH/NS, *píd-da-a-an-ni-wa-an* KUB 14.1 obv. 74 MH/MS), *sallanna-* ‘to pull, drag’ (e.g., *šal-la-an-na-a-i* KUB 12.8 IV 7 OH/NS, 8 instances), *taksanna-* ‘to level’ (*ták-ša-an-ni-iš-ke-et* KBo 10.2 II 5 OH/NS), *tiyanna-* ‘to put’ (*ti-an-na* KUB 20.76 I 17 with dupl. KBo 30.165 I 10 OH/NS<sup>197</sup>, *ti-ya-an-ni-ya-u-wa-an* KUB 43.61 I? 7 OH/NS), *tuhsanna-* ‘to cut off’ (e.g., *túh-ša-an-na-i* KBo 15.10 II 24 MH/MS, 6 instances), *walhanna-* ‘to strike’ (e.g., *wa-al-ḫa-an-ni-an-zi* KBo 17.1+ II 36’ OS, *wa-al-ḫa-an-ni-eš-kán-zi* IBoT 2.96 V 17 OH/NS, 20+ instances), *weriyanna-* ‘to call’ (*ú-e[-ri-an-ni-iš-k]e-ši* KUB 14.16 IV 21 with dupl. [*ú-e-ri-a*]n-[n]i-iš-ke-ši KUB 14.15 + IV 49 Murš. II).

Only a few verbs regularly take *-anna/i-* to form their imperfective stem: *hatt-* ‘to pierce’, *huittiya-* ‘to draw, pull’, *iya-*<sup>tt(ri)</sup> ‘to go’, *pars(iya)-* ‘to break’, *saliya-* ‘to pull’ and *tuhs-* ‘to cut off’; in the case of *walh-* the original *-anna/i-* is gradually replaced with *-ske/a-* (cf. Hoffner, Melchert 2008: 322). *Huek-* ‘to conjure’, *huek-* ‘to slaughter’, *iskār/iskar-* ‘to sting, pierce’, *lahhiye/a-* ‘to go on an expedition’, *pai/i-* ‘to give’, *parh-* ‘to drive’, *pessiye/a-* ‘to throw’, *dai/ti-* ‘to put’ only have one or two imperfectives in *-anna/i-* besides numerous imperfectives in *-ske/a-*. The remaining verbs only have a few imperfective forms (only in *-anna/i-* or both in *-anna/i-* and *-ske/a-*), so their primary imperfective stem cannot be established.

The verb *nanna-* ‘to drive’ is often believed to be an imperfective in *-anna/i-*, cf., e.g., HED 7: 40. As Kloekhorst and Lubotsky (2014) have argued, the root underlying the verbs *nē-*, *nai-* ‘to turn’ and *nanna/i-* ‘to drive’ is just *\*neh<sub>1</sub>-*; therefore, *nanna/i-* can perfectly be a reduplicated stem *na-nn-ai/i-* with a copy vowel reduplication<sup>198</sup>. For *-a-* in the reduplication syllable cf. *pappars-* ‘to sprinkle’ and for a causative

<sup>197</sup> *Tianna* could also be an infinitive from *dai-*, cf. HEG T: 365.

<sup>198</sup> According to Dempsey (2015: 333), partial copy reduplication is the most productive synchronic pattern of reduplication. Since this type of reduplication is attested both in Hittite and Luwian, it seems safe to assume that it was already operating in Proto-Anatolian. Therefore, *nanna/i-* may go back to Proto-Anatolian *\*no-nh<sub>1</sub>-oi/i-*.

reduplicated stem, cf., e.g., *asās-* ‘to settle, install’ from *es-* ‘to sit’. In my opinion, *nanna/i-* ‘to drive’ can hardly be an imperfective in *-anna/i-* due to its significant semantic difference from *nē-*, *nai-* ‘to turn’: such a divergence in meaning is otherwise unattested not just for *anna/i-* imperfectives but also for much more numerous *ske/a-* imperfectives.

**5.5** Relics of these formations have also been found in other Anatolian languages. In Luwian, the suffix *-anna-* is attested in CLuw. *ūppannandu* from *ūppa-* ‘to bring’ and CLuw. *māmmanna-* ‘to see, look at’, s. Melchert 1993: 134, 242. Melchert (2003: 205f.) remarks that due to scarce attestation of *-anna-* in Luwian it is difficult to determine whether this suffix was a marker of imperfective aspect. Yakubovich (2009: 143f.) notes that *māmmannaddu* in KUB 35.16 I 10 can be compared to Hitt. *sakuwa har(k)-/ epp-* ‘to keep an eye (on something)’, which makes the imperfective interpretation of the stem *mammanna-* likely. Rizza (2013: 92) compares Lydian suffix *-ēn-* (in *vcbaqēnt* ‘to destroy?’) to Hitt. imperfectives in *-anna/i-*. Even if the Lydian suffix is unrelated, the Hittite and Luwian data show that *-anna/i-* is at least common Anatolian.

**5.6** In Hittite, the verbs of this type conjugate similarly to *mēma/i-* ‘to speak’ (Oettinger’s II 3 a Typ γ (Oettinger 1979: 77f.)) and have a remarkable alternation of *-a-* and *-i-* in the suffix: 1sg.pres. *i-ya-an-na-aḫ-hé* KBo 17.4 II 8-9, 3sg. pres. *pár-ši-ya-an-na-i* KBo 20.4 IV! 6, 3pl. pres. *šal-la-an-ni-ya-an-zi* KUB 58.14 rev. 1. K. 24, part. *wa-al-ḫa-ni-an-da* KBo 10.25 VI 15.

Thus, we have *-a-* in the singular stem vs. *-i-* in the plural stem and in 3sg. pret. In the New Hittite period, *-a-* sometimes appears in plural as well: *pár-ši-ya-an-na-an-zi* KUB 25.32 II 22 (OH/NS) besides *pár-ši-ya-an-ni-an-zi* in III 24. Some verbs, mostly *iyanna-*, show forms of *-ye/o-* class, e.g., *iyanniyazi* KUB 8.68 I 7 or *iyanniyanzi* KUB 20.87 I 14.

It is clear that this type has developed from the *dai/tiya-* class, but it is disputed how exactly the development took place. Kloekhorst (2008: 145ff.) assumes analogy



to the *tarna*-class that started already in pre-Hittite, whereas Kümmel (2012: 203) argues that in the singular *-ai-* in the post-tonic position was monophthongized to *ē*, which in turn developed into either *a* or *i* depending on whether it was in an open or closed syllable.

**5.7** I know of only three participial forms to a stem in *-anna/i-* – *wa-al-ḥa-ni-an-da* KBo 10.25 VI 15' with a duplicate KUB 53.32 6', *iš-kal-la-an-ni-an-tu-uš* KUB 58.63 II 2 and *i-ya-an-ni-an* KUB 9.34 III 37 (*i-ya-an-ni-an ge-nu-un*), which seems to be a scribal mistake for *iyanniantan* or *iyandan*, cf. *iyandan genun* in l. 34, for the discussion see Hutter 1988: 82f.

**5.8** Some imperfectives in *-anna/i-* may in fact be denominative verbs derived from abstract nouns in *-ātar*. This derivation is best illustrated by *taksanniske-* 'to level', which must have been derived from *taksātar* 'level' rather than from *taks-* 'to unify, mingle' (Kloekhorst 2008: 815). In fact, *taksanniske-* is likely to be a *-ske/a-* imperfective from *\*taksanniye/a-*, parallel to Luwoid *taksatniye/a-* 'id.' which occurs twice in KUB 15.34 I 45 and III 52. This derivational mechanism may be responsible for several unexpected imperfectives in *-anna/i-* attested besides regular imperfectives in *-ske/a-*; for instance, *hūganniye/a-* (*ḥu-u-ga-an-ni-ya-u-wa-an-zi* KBo 64.56 rev. 6 NS) 'to conjure' may be derived from *hugatar* 'conjunction'<sup>199</sup>; *iskaranniye/a-* (*iš-kar-ra-an-ni-an[-du]* KBo 8.35 II 21 MH/MS) may be derived from *iskarātar* 'sting?', even though the latter is attested only in New Hittite; and *lahhiyanniye/a-* 'to set out' (*la-aḥ-ḥi-ya-an-ni-iš-ga-u-e-ni* KBo 4.4 III 50 Murš. II) may be derived from *lahhiyatar* 'campaign'.

Some other imperfectives in *-anna/i-* may be nonce formations, the clearest example being *parhannai*. It is attested only in the second Tablet of Kikkuli (KBo 3.5), where we also find *pār-ḥa-nu-zi* and several variants of the 3Sg. of the basic stem: *pār-aḥ-zi*, *pār-ḥa-i*, *pār-aḥ-ḥa-i* and *pār-ḥa-a-i* in similar contexts. It appears that the author of the text did not know what the proper form was.

<sup>199</sup> For this noun see HW<sup>2</sup> H: 682.

Most verbs, which regularly form their imperfective stem with the suffix *-anna/i-* like *huettiye/a-* ‘to draw’, *iya-* ‘to go’, *pars(iye/a)-* ‘to break’, *tuhs-* ‘to cut’, have middle endings, at least in the Old Hittite period. A very clear example is the verb *hatt-* ‘to pierce’, where the stem *hatt-* originally added middle endings while *hazziye/a-* added active endings, and it is the stem *hatt-* that has imperfectives in *-anna/i-*, while imperfectives in *-ske-* were derived from the stem *hazzie-*. Since other middle (medio-passive) verbs either have very few imperfectives in *-ske-* (for instance, *pahs-* ‘to protect’, for which the imperfective *pahhaskeddu* is attested only once, in KUB 39.101 II 12 (NS)) or have no imperfectives at all (*ki-* ‘to lie’, *kis-* ‘to turn out, happen’), it seems safe to assume that such verbs had *-anna/i-* as their imperfective suffix of choice<sup>200</sup>. The only active verb that regularly employed *-anna/i-* (at least in Old Hittite) is *walh-* ‘to beat, strike’<sup>201</sup>. Unsurprisingly, since Middle Hittite the imperfective in *-anna/i-* started to be replaced with the imperfective in *-ske-* for this verb.

Nevertheless, the distribution of the *-anna/i-* must have been wider in proto-Hittite. There are some other verbs besides *walh-* that seem to have replaced *-anna/i-* with *-ske/a-*. The stem *piddanna-* ‘to carry, pay’ is attested only twice, in a Middle Hittite original and a copy of an Old Hittite text, whereas more numerous *ske-*forms come mostly from NH texts, cf. CHD P: 356. *Hullanna-* ‘to strike, defeat’ is attested once in CTH 789 (Song of Release), while both certain examples of *hulliske-* come from the New Hittite CTH 81 (Apology of Hattusili III). Since *piddai-* is likely to be a late, inner-Hittite formation (Kloekhorst 2008: 678f., HED 9: 96); it appears that the use of *-anna/i-* was expanding at some point before the suffix became recessive in Middle Hittite.

Whatever the original distribution of various imperfective suffixes in Hittite may have been, in later Hittite, *-anna/i-* became associated with middle verbs. The position

<sup>200</sup> Note also that the imperfectives in *-anna-* have virtually no middle forms, with very rare exceptions like *hallanniyattari* KUB 4.3 obv. 9 and *tuh<sup>uh</sup>šannatta* KBo 9.114 III 12. On the contrary, middle forms are quite frequent for the imperfectives in *-ske-*. Certain verbs, like *pai-* ‘to go’, have middle forms only in the imperfective stem.

<sup>201</sup> There is also a single active form *ša-li-i-an-zi* KUB 58.14 rev. 24 beside a much more frequent imperfective stem *salanna-*, but this could be a parallel formation of the same root, since *sallanna-* does not have the suffix *-ya-* that is present in *saliya-*, cf., e.g., *hatt-* and *hazzie-* ‘to pierce’.

of *-ss(a)-* is less clear. Three verbs, *iya-* ‘to do’, *halzai-* ‘to call’ and *sai-* ‘to impress’, show imperfective forms with *-ss(a)-* consistently since Old Hittite. Beside them, there is *warissa-* ‘to help’, which may well be a borrowing from Luwian, s. Starke 1990: 155f. It is likely that Hittite imperfectives in *-ss(a)-* are remnants of a once larger class that was better preserved in Luwian. In this case, the distribution of *-ske-* and *-anna/i-* is a secondary one that arose rather late in the prehistory of Hittite.

**5.9** The origin of *-anna/i-* is disputed. According to Forrer, followed, e.g., by Kloekhorst (2008: 175f.), it originated from abstract nouns in *-ātar* (G.Sg. *-annas*). Indeed, some alleged imperfectives in *-anna/i-* are derived from nouns in *-ātar*, see 5.8 above, but the verbs that have regular imperfectives in *-anna/i-* do not have abstracts in *-ātar*. Besides, if Hitt. *-anna/i-* were derived from *-ātar*, its Luwian cognate should have been *\*\*atna-* rather than attested *-anna-*<sup>202</sup>, cf. Luwoid *taksatniye/a-* ‘to level’ from *taksatar* ‘level’. Therefore, *-anna/i-* and *-ātar* are not related.

Oettinger (1992b) compared the Hittite suffix *-anna-* to Skt. *-anyá-*, found in the verbs of the type *riṣanyá-* ‘to fail, miscarry’ and *bhuranyá-* ‘to be restless, stir’, generally believed to be denominatives. According to Oettinger, the Hittite and Sanskrit suffixes go back to a sequence *\*-en-yé-*; the geminated *-nn-* of the Hitt. *-anna/i-* is conditioned by the preceding accent and is not a result of assimilation in the cluster *\*-VnHV-*<sup>203</sup>. The element *\*-en-* in this sequence was an intensive suffix in PIE. One of the examples for it, provided by Oettinger, is PIE *\*kes-* ‘to comb’, cf. Hitt. *kiss-* ‘to comb’, vs. Gr. ξαίνω < *\*ksnyé-*, which besides ‘to comb’ also means ‘to mangle’. The problem with this hypothesis is as follows: verbs in *\*-ye/o-* that always take

<sup>202</sup> On the interpretation of Luwian forms in *-anna-* see 5.5. above.

<sup>203</sup> He gives the following examples for this development: *lammar* ‘name’ < *\*nómr*, *hanna-* ‘grandmother’ < *\*h<sub>2</sub>éno-*. The place of accent in the *-anna/i-* imperfectives is not established. However, the form *píd-da-a-an-ni-wa-an* KUB 14.1 obv. 74 (Madd.) suggests that it was on the first vowel of the suffix.

Kimball (1999: 127, 307) argues that while there are no secure examples of *\*n* after short accented *\*a*, *\*i*, *\*u*, short accented *\*e* and *\*o* were lengthened, so there were no conditions for doubling of nasals after short accented vowel. She notes, however, that there could be doubling of /n/ before accented vowels (op. cit. 308). Melchert also states that accented vowels are lengthened in open syllables (1994: 106ff.). On the contrary, Tremblay (1999-2000: 223f.) gives the following examples of doubling of /n/ after accent: the gemination of /n/ in clitics, e.g., *nu=nnas* (with the place of accent securely established) and the stem *anniske-* ‘to do’, where there is once a plene writing on the first syllable *a-an-ni-eš-ki-ši* (HKM 55 rev. 26 (MH/MS)). For the *-nn-* in *anniske-* see the entry for *annanu-* ‘to train’ in 4.1. As for *-nnas*, see now Kloekhorst 2014: 590 for a rule of regular fortition of intervocalic consonants in a pre-pretonic position in a sentence initial position.

endings of the *mi*-conjugation ended up in the *hi*-conjugation with an unusual type of ablaut in the suffix. Oettinger's explanation (1992b: 151ff.) requires a lot of analogical leveling and is implausible.

Jasanoff (2003: 122) compares Hittite imperfectives in *-anna/i-* with the Skt. type *grbhāyá-* 'to grasp, seize', for which since de Saussure (1879: 251f.) a complex suffix *\*-nh<sub>2</sub>-yé/ó-* has been reconstructed. The Hittite suffix *-anna/i-* in his opinion reflects *\*-nh<sub>2</sub>-i-* (to which in Indo-Iranian a thematic vowel that was added). Jasanoff explains the lack of *-i-* in the singular via analogy to *unna-* 'to bring' and *penna-* 'to take away',<sup>204</sup> He claims that *\*-nh<sub>2</sub>-i-* is also reflected in Greek (e.g., ὑφαίνω 'to weave') and Tocharian B *māntam*, *māntaññem* 'to hurt, be upset' (ibid. 124). The Skt. type *bhuranyá-* 'to be restless' also belongs here, although the nasal element is original only in verbs *iṣanyá-* 'to cause to make haste, drive' and *damanyá-* 'to subdue' as well as Av. *zaraniia-* 'to be irritated', while other verbs have got this suffix by analogy (ibid. 125f.).

The comparison of *-anna/i-* with *\*-nh<sub>2</sub>-i-* and *grbhāyá-* type is difficult in several aspects. First, *-anna/i-* belongs to the *mēma/i-* type and therefore must contain the formant *\*-oi/i-*, for which see Kloekhorst 2006: 115f. Second, the initial *-a-* of *-anna/i-* cannot result from vocalization of *\*ŋ* since *\*ŋH-V-* would have yielded *\*-anHV-* (Kloekhorst 2008: 80). Note, however, that the most likely source for the second *-n-* in *-anna/i-* remains an assimilated laryngeal. Third, the Sanskrit present stems of the type *grbhāyá-* are closely related to class IX (infix) verbs and are in fact *\*ye/o-* extensions of the infixed stems, i.e. *grbhāyá-* < *\*g<sup>h</sup>rb<sup>h</sup>-ŋ-h<sub>2</sub>-yé/ó-* is derived from IX class stem *grbhñā-/grbhñī-* < *\*\*g<sup>h</sup>rb<sup>h</sup>-né-h<sub>2</sub>-g<sup>h</sup>rb<sup>h</sup>-n-ḥ<sub>2</sub>-*, see Jasanoff 2003: 123. On the contrary, Hittite verbs that regularly take *-anna/i-* show no traces of the infix elsewhere in their stem formation<sup>205</sup>. Summing up, *-anna/i-* in e.g., *hattanna/i-* < *\*h<sub>2</sub>et-o'-nH-oi/i-* is substantially different from *-āyá-* in Skt. *grbhāyá-* < *\*g<sup>h</sup>rb<sup>h</sup>-ŋ-h<sub>2</sub>-yé/ó-* both in form and derivational prehistory.

<sup>204</sup> According to Jasanoff, the singular in *unna-* and *penna-* was in turn modelled after prefixed verbs with the root *da-* 'to take', e.g., *pedahhi* 'I take away'.

<sup>205</sup> In case of *hallanna/i-* and *hullanna/i-*, an assumption that the suffix *-anna/i-* contains a nasal infix would mean that these stems each have two infixes, as the basic verbs *halla-* and *hulle-* already have it, see the respective entries.

**5.10** More promising is the comparison of Hitt. *-anna/i-* to Armenian present suffixes *-ana-* or *-ane-* (on which see Klingenschmitt 1982: 106ff., 159ff. and Kocharov 2011) and Greek suffix *-άνω* (of the type *ἁμαρτάνω* ‘to miss the mark, go wrong’, for which see Schwyzer 1939: 699f. and Sihler 1995: 518ff.). Even though Armenian and Greek suffixes most likely go back to *\*-ḡH-e/o-* and therefore cannot be immediately related to *-anna/i-*, the element *\*-ḡH-* is likely to be of the same origin. Whether it is related to the nasal infix is not clear. While both Hittite verbs with imperfectives in *-anna/i-* and Greek verbs in *-άνω* are mostly transitive, in Armenian *-ana-* became a productive suffix to derive denominatives, and the primary verbs with *-ana-* are either intransitive or labile, e.g., *luanal* ‘to wash/wash oneself’ or *slanal* ‘to fly, rush’. Moreover, neither Hittite imperfectives in *-anna/i-* nor Armenian verbs in *-ana-* have a specific affinity with infixed stems. In Greek, *-άνω* often occurs next to an infix, e.g., in *ἀνδάνω* ‘to please’ (Aor. ἔαδε). However, presents in *-άνω* also appear next to shorter present stems without infix, e.g., *ἐρυκάνω* next to much more frequent *ἐρύκω* ‘to restrain’, see further examples in Schwyzer 1939: 700. Vendryes (1923) argued for a punctive meaning of Greek presents in *-άνω* and claimed that they described the initial phase of action, i.e. they were inchoatives; since inchoative meaning was one of the functions of the Hittite imperfectives in *-anna/i-*, this makes the comparison of Hitt. *-anna/i-* and Gr. *-άνω* more plausible.

Summing up, an indirect comparison of Hitt. *-anna/i-* with Greek *-άνω* and Armenian *-ana-* is formally possible, assuming the core element *\*-ḡH-* is reflected in all three of these suffixes. If Greek presents in *-άνω*, indeed, have a punctive (especially inchoative) meaning, as per Vendryes, it would make them a very likely cognate with Hittite imperfectives in *-anna/i-*.

**6.1** In this chapter, I will treat the formal side of comparison between nasal presents in Hittite and in other IE branches. As for the other Anatolian languages, so far no unambiguous examples of infixed presents have been detected, but there are quite a few *nu*-verbs in Luwian, see 4.17.

**6.2.1** The comparison between Hittite verbs and verbs in other Indo-European languages is complicated by a fundamental difference between the respective verbal systems. In most ancient Indo-European languages except for Anatolian, a finite verbal form is derived from a certain stem rather than immediately from a root. In Hittite, we only have two tenses, present and preterite, which essentially differ only in endings, and there is no stem variation within a paradigm, cf. 1.4.

While the origin of the infix is still disputed (cf. 1.8), it was undoubtedly a marker of a present stem at the latest stage of PIE. This function is clearly seen not only in Indo-Iranian (Skt. pres. *bhinátti* : Aor. *abhet* ‘to split’), but also in Latin (pres. *findō* : perf. *fidī* ‘to split’), Greek (pres. *κίβνημι* : aor. *ἐκέρασα* ‘to mix’), Lithuanian (pres. *limpù* : pret. *lipaũ* ‘to cling, stick’), Old Irish (pres. ind. *sernaid* : pret. *-sert* ‘to scatter’) and Tocharian (Toch.A *kärsnām*, pret. *šärsā* ‘to know’), even though in some cases it was generalized throughout the paradigm as in Lat. *iungō*, *iunxī*. In Hittite, the nasal infix does not mark a specific aspectual or temporal stem. While we have pairs of verbs like *hark-* ‘to perish’ and *harnink-* ‘to destroy’, the latter obviously infixing, in Hittite they are two lexically distinct verbs.

**6.2.2** One could argue that *hark-* and *harnink-* are in fact reflexes of two different stems, present and aorist, of a single PIE verb<sup>206</sup>. In that case, the assumption would be that the Anatolian verbal system underwent a dramatic simplification process of the

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<sup>206</sup> Strunk (1967: 29f.) argued that nasal presents were derived from root aorists in PIE.

original verbal system with the present, aorist and perfect stems, which became to function as distinct verbs. On the other hand, it may also be argued that the infix originally had some specific derivational meaning and only later, after Proto-Anatolian branched off, it came to be reinterpreted as one of the markers of the present stem in PIE, along with other suffixes like *\*-ye/o-*. E.g., Strunk (1994) argued that prior to the development of the present : aorist opposition various suffixed formations expressed manners of action (Aktionsarten) and only later entered the system of the present tense. While the loss of the present : aorist opposition in Anatolian certainly cannot be excluded<sup>207</sup>, there is no indication in Hittite that such an opposition ever existed (cf. 1.2-4 with note 4)). Therefore, I am inclined to follow Strunk's views on this issue.

**6.2.3** In Hittite, nasal presents belong to the domain of derivation. It is especially clear in the case of *nu*-verbs, which became very productive in Hittite and could be derived from adjectives and nouns as well, see 4.7-8. It is likely that infixed verbs enjoyed some limited productivity in the prehistory of Hittite (on the *harnink-* type see 2.4.5 and the entry for *harnink-*). The verbs *zinni-* 'to finish' and *sunna-* 'to fill' may also be inner-Anatolian creations, as they have no verbal cognates outside Anatolian; most probably, they were derived from Hitt. *zē-* 'to be ready (about food)' and *\*seuh<sub>3</sub>/suh<sub>3</sub>-* 'to be full' (cf. also *sū-* 'full', *suwa-* 'to fill').

**6.2.4** While there is a substantial number of nasal presents in Hittite, there are only a few cases in which a Hittite nasal stem corresponds to a similarly old nasal present in other IE languages. I would consider certain only the following verbs: Hitt. *tarna-* 'to release' and Toch.A *tärk-*, pres. *tärnā-* 'to dismiss', Hitt. *tamink-* 'to attach' and Skt. *tanákti* 'to pull together', Hitt. *ninink-* 'to move, disturb' and Lith. *su-ninkù*, -*nikti* 'to become involved, assault', and finally Hitt. *arnu-* 'to move' and Skt. *ṛṇóti* 'to move, put in motion' (see the respective entries). Given the amount of infixed verbs

<sup>207</sup> There are clear examples of simplification in the Hittite verbal system. For instance, Hittite has only one participle in *-ant-*; in Luwian, however, the participles have the suffix *-m(m)a/ī-* and also petrified participles in *-nt-*: e.g., *walant-/ulant-* 'dead' (cf. Melchert 1993: 250). In my opinion, it is safe to assume that in Proto-Anatolian there were at least two participial stems.

and especially *nu*-verbs in Hittite, it seems safe to assume that this type of derivation still was productive after the separation from Proto-Indo-European and remained productive in the prehistory of Hittite<sup>208</sup>.

**6.3.1** The infix can only be established in Hittite via comparison with cognate forms in Hittite or other Anatolian and IE languages. Some of these comparisons and etymologies are not beyond doubt. Moreover, the alleged Hittite reflexes of PIE nasal presents do not have much in common with each other. They may belong to both *hi*- and *mi*-conjugation, e.g., *sunna*-<sup>hhi</sup> ‘to fill’ and *tarna*-<sup>hhi</sup> ‘to release’ vs. *hulle*-<sup>mi</sup> ‘to strike’ and *harnink*-<sup>mi</sup> ‘to destroy’. The shape of the infix also varies. Five verbs have *-nin-* (see 2.1), *hinik/hink-* and *tamenik/tamink-* may have preserved traces of the ablaut *-ni/n-* (see 2.4.4), while in yet other verbs the infix is just plain *-n-*, occasionally assimilated to the preceding /l/, as in *hulle-*.

If the last consonant in the root is a laryngeal, it is usually either assimilated to the infix, as in *zinni-* ‘to finish’ or *sunna-* ‘to fill’, or lost in a three-consonant cluster, as in *hulle-* ‘to smash’ < \**h<sub>2</sub>ul-n-h<sub>1</sub>-V*. In the latter case, the former presence of a laryngeal is betrayed by the connecting vowel *-u-* in the 1pl. (e.g., 1pl. pret. act. *hu-ul-lu-mi-en*, see Eichner 1988: 136ff. and Melchert 1994: 57).

**6.3.2** The infix *-nin-*, e.g., in *harnink-* ‘to destroy’ or *sarnink-* ‘to compensate’ (see in more detail 2.1-2), does not have any direct parallels outside Anatolian, with the possible exception of Slavic \**-nq-*, on which cf. 2.1.7. There are several theories concerning the origin of *-nin-* (see again 2.1.7), but all of them involve the full grade of the infix, \**-né-*. Moreover, the verbs *hink-* and *tamink-* seem to have preserved reflexes of the ablaut *-ni/n-*, which could be directly compared to the Indo-Iranian data (on which cf. 1.8). Thus, Hittite is one of the few languages that actually show the traces of the full grade of the infix. There may also be vestiges of ablaut in *nu*-verbs, if *wa-aḥ-nu-ú-mi* KBo 17.1+ II 18' OS and *ḥu-is'-nu-ú-ut* KBo 3.28 II 19 OH/NS do reflect /ū/ < \**-néu-* in the singular.

<sup>208</sup> Note also that Hittite *nu*-verbs have a limited number of correspondences among Luwian *nu*-verbs, see 4.17.



**6.3.3** Not a single infixed verb can be shown to have an unambiguous full grade of the root<sup>209</sup>. There are some *nu*-verbs with a full-grade of the root, e.g., *tepnu-* ‘to diminish’<sup>210</sup>, so it seems that for a synchronic derivation the zero grade of the root was no longer a requirement. Since verbal stems in *\*-néu-/nu-* have a zero grade in the root in PIE (LIV: 17), one would expect their Hittite descendants to have a zero grade of the root as well. The Hittite *nu*-verbs with the full grade of the root must be of late and/or secondary origin.

Summing up, Hittite infixed verbs had a zero grade of the root and some of them still preserve traces of full grades of the infix and the suffix *-nu-*. This situation matches well the data of the other IE languages, especially Indo-Iranian, where the ablaut was clearly preserved, cf., e.g., Skt. 3sg. pres. act. *yunákti* < *\*yu-né-g-ti* : 3pl. pres. act. *yuñjánti* < *\*yu-n-g-énti* ‘to yoke’ and 1.8.

**6.3.4** Hittite infixed verbs consistently show a vowel *-i-* after the nasal. In the *nin*-verbs, it is explained by a regular sound change *i* < *\*e/\_nK*. In *zinni-* and other verbs of this type as well as in *tamenik-* and *hinik-*, such a vocalism is unexpected. A likely explanation is that Hittite scribes used the sign NE mainly in the beginning of a word and NI elsewhere (see Oettinger 1979: 135<sup>3</sup>, Sideltsev 2002: 32ff.). However, replacing NE with NI in the non-initial syllables was a tendency rather than a rule without exceptions. Since there is not a single example of *\*zi-in-ne-*, the spellings with NI might reflect an actual pronunciation. In that case, in order to explain the *i*-vocalism, we have to assume a retraction of the accent to the root, see further 3.2.1.4.

**6.3.5** There are several infixed verbs that belong to the *hi*-conjugation instead of the expected *mi*-conjugation. In the case of *sunna-* and *tarna-*, the change to the *hi*-conjugation could be triggered by accented *\*ó* in *\*sunnóh<sub>3</sub>-* < *\*sunneh<sub>3</sub>-* and *\*trknóh<sub>3</sub>-*

<sup>209</sup> As for the verbs that seem to have full grade of the root, *duwarni-* is hardly infixed as its root did not have a laryngeal in the auslaut; *hamank/hamink-* must be a post-PIE formation as well, see the respective entries.

<sup>210</sup> The zero-grade of the root in this stem (/tpnu-/) would have been indicated with the graphic *-a-*: *\*ta-ap-nu-*, cf. G.Sg. *ták-na-(a-)aš* < *\*d<sup>h</sup>g̑-m-os* vs. N.Sg. *te-e-kán* < *\*d<sup>h</sup>eg̑-m* ‘earth’; it is not clear whether an anaptyctic vowel /a/ did actually developed in such a cluster (Kassian, Yakubovich 2002: 11) or not (Kloekhorst 2008: 860).

< *\*trknéh<sub>3</sub>*-. This leaves us with *hamank*- and possibly *galank*-, which do not have any nasal cognates in other languages.

However, there are infixed stems with an *o*-grade in Lithuanian – *kàkti*, pres. *kankù* ‘to set off, go’, *tàpti*, pres. *tampù* ‘to become, grow’ and *ràsti*, pres. *randù* ‘to find’, see Stang 1966: 346ff. Nevertheless, these formations are hardly old. Stang points out that in Old Lithuanian there still was an athematic present *-kakti* and argues that pres. *-kakti* : pret. *kāko* was subsequently replaced with pres. *-kanka* : pret. *kāko*. According to Stang, athematic presents *-kakti*, *\*tap-* and *\*rad-* were based on the perfect stem, which accounts for the vocalism *a* (*\*o*). Summing up, this type of nasal presents in Lithuanian is a late formation.

Given that in Anatolian, as in Lithuanian, the infixation was still productive after the break-up of Proto-Indo-European, *hamank/hamink*- and *galank*- are very likely to be post-PIE formations as well.

Gorbachev (2007) argued for a distinct *hi*-conjugation nasal present type that was preserved only on Germanic, Baltic and Slavic<sup>211</sup>. These verbs had an accented thematic suffix and inchoative semantics, and it is exactly these features that make the comparison of this group of verbs with the *hi*-conjugation infixed verbs in Hittite impossible: the Hittite verbs are transitive and athematic. Moreover, in my opinion, the fact that these inchoative thematic infixed presents are preserved only in Germanic, Baltic and Slavic languages, which share a significant number of innovations, makes a post-PIE development of this type in the northern branches more plausible.

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<sup>211</sup> E.g., Lith. *līm̃pa* ‘to cling’, OCS *-līnetŭ* ‘to cling’, Goth. *-lifniþ* ‘to remain’ < *\*limp-é-* < PIE *\*leip-*.

**7.1** There is a very clear functional similarity between the infix *-nin-* and the suffix *-nu-*, which can be demonstrated by the following example: *harnink-* and *harganu-* both mean ‘to destroy’ and are both derived from *hark-* ‘to perish’ with the help of the infix and the suffix *-nu-*, respectively. The difference between them is chronological rather than functional, i.e. *harganu-* started to replace *harnink-* in the New Hittite period (s. Ünal 1984).

**7.2.1** Just as there is no uniform shape of the infix (6.3.1-2), there is also no common function or semantics. *Harnink-* ‘to destroy’, *istarnink-* ‘to make ill’ are causatives, and many *nu-*verbs are causatives and factitives as well (see 4.14). *Sarnink-* ‘to compensate’, *ninink-* ‘to set in motion’, *sunna-* ‘to fill’ and *zinni-* ‘to finish’ are also likely to have been causatives originally, even though their parent verbs are either unknown or were no longer perceived as related; note, however, that *sarnink-* and *zinni-* can be used absolutely, so they are labile, or I/T verbs in Jamison’s terminology (for this type of verbs cf. a.o. Haspelmath 1993, Letuchiy 2009). Some other infixed verbs like *hulle-* ‘to smash’ or *munnaī-* are just transitive. Surprisingly, there are a few intransitive verbs – *tamink-* ‘to attach’, *nuntarnu-* ‘to hurry’, *huntarnu-* ‘to bark’, *wastanu-* ‘to sin’, *lalukkesnu-* ‘bring light to’ and perhaps *hatnu-* ‘to dry up’ and *tamenganu-* ‘to attach’. The contexts for the latter two verbs are damaged, so there may be also some transitive instances, see their respective entries. The verb *zaluganu-* ‘to delay’ may also be used intransitively if *nuntarnu-* is used in the same phrase.

On the functional semantics of the *nu-*verbs, see 4.15.

**7.2.2** Among infixed verbs *tamink-* ‘to stick to, attach’ seems to be intransitive even in the active voice. This infixed stem is of PIE age, but its Skt. counterpart *tanákti* ‘to pull together’ is transitive. The intransitivity of *tamink-* is difficult to explain; one may argue that active forms were originally transitive, but eventually the

intransitive meaning of the middle forms was generalized. As for intransitive *nu*-verbs, I can only assume that the force of the suffix was intensive (in case of *nuntarnu*- ‘to hasten’ and *huntarnu*- ‘to grunt’) or terminative/telic (*wastanu*- ‘to sin’).

**7.2.3** Hittite *nu*-verbs are often called causatives. The term was introduced by Sturtevant (e.g., 1933: 9) and has been widely applied in Hittitological studies since then, see, e.g., Kronasser 1966: 435ff., Hoffner, Melchert 2008: 178f. Sometimes, this term is applied to infixed verbs as well.

The application of the term “causative” may be correct for those *nu*-verbs (and infixed verbs) that were derived from intransitive verbs, but most Hittite *nu*-verbs derived from transitive verbs are not causatives in the strict sense, or morphological causatives, as there is no valency increase (for this condition of causativity see Kulikov 2001: 888f.).<sup>212</sup> Kronasser (1960: 14) justified the application of the term ‘causative’ to Hittite verbs on the grounds that any transitive verb can be analyzed as a causative one. In our case, it is true that both the verb *huek*- ‘to slaughter’ and *hunink*- ‘to break, crack’ may be thought as denoting causative situations (cf. Nedjalkov and Silnickij 1973: 1). However, it is quite clear that *hunink*- ‘to scar, crack’ can hardly be viewed as a causative to *huek*- ‘to slaughter’. The same applies to many *nu*-verbs that either have a meaning similar to that of the basic verb (cf., e.g., *pahsnu*- ‘to protect’ or *asesanu*- ‘to install’) or change it only slightly (*isparnu*- ‘to sprinkle?’ or *kanganu*- ‘to weigh?’), not to mention the intransitive verbs like *nuntarnu*- ‘to hurry’. Therefore, at least synchronically, Hittite infixed verbs and *nu*-verbs are not exclusively morphological causatives. In fact, the suffix *-nu*- and the infix both had several functions and could be used to derive not only causatives but also intensive and terminative formations.

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<sup>212</sup> Nedjalkov and Silnickij (1973: 32) note that in causatives made to some verbal classes (verbs of perception, of obtaining or taking) the original syntactic valency may be preserved, though it is more accurate to describe this process as a development of an optional argument into an obligatory one. They also point out that if a causative has more than two arguments, the causee may often be omitted.

**7.3** If we take a look at another ‘causative’ morpheme reconstructed for PIE, the suffix *\*-éye-*, we actually see a similar picture. In Vedic, there are two types of forms with this suffix, an intransitive and a transitive (or causative) one. The intransitive forms, which are sometimes called intensive but are better described as atelic (see Kulikov 2008), have zero grade of the root or full grade in the roots of the type *CaC*, while the causatives have the original *o*-grade; for a detailed description see Jamison 1983, Lubotsky 1989. Note that in non-ablauting roots these two types are indiscernible (Kulikov 2013: 81f.).

In other Indo-European languages, *\*-éye-* formations may also be intransitive as well as transitive. Kölligan (2007) studied Latin verbs of the types *sorbēre* ‘to slurp’ and *monēre* ‘to remind, admonish’ that go back to PIE *o*-grade stems with the suffix *\*-éye-*. His conclusion is that, based on high or low agentivity<sup>213</sup> of the original verb, the derived verbs will turn out either iterative-intensive or causative. In another study, he applied this approach to Greek reduplicated aorists and to Gothic *jan*-verbs<sup>214</sup> (Kölligan 2004) and pointed out that there is crosslinguistic data for intensive and causative polysemy of certain morphemes, e.g., intensive usages of causatives in Swahili (see Comrie 1985: 330).

Summing up, the case for polysemy of the infix and the suffix *-nu-* in Hittite is supported by crosslinguistic data; causative and intensive meanings coexist particularly often.

**7.4.1** What was the function of the infix in PIE? There is a long tradition of assuming a terminative meaning for the infix, see, e.g., Kuiper 1937: 202ff., cf. Oettinger 1979: 167 and note 80.

**7.4.2** More recently, some scholars have suggested a causative/factitive function, see, e.g., Rasmussen 1997: 251. For instance, in Vedic, two different present stems can

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<sup>213</sup> “Agentive actions may be defined as situations in which the subject has the following features (in a prototypical case): (1) it carries out the action. (2) The subject is the source of the action and it is not caused by something and somebody else. (3) The action comes about by the energy input of the subject which is not an experiencer” (Kölligan 2007: 58).

<sup>214</sup> On intensive/iterative *jan*-verbs in Gothic see also García García 2005: 40ff.

be built to one root, one of them being usually transitive and the other intransitive, cf., e.g., *éti* ‘goes’ and *inóti* ‘sends’ or *kṣīyate* ‘perishes’ and *kṣiṇāti* ‘destroys’; this situation has caused scholars to use terms like ‘factitive’ (Joachim 1978: 24f.) or ‘causative’ (Kulikov 2000: 194f.). The problem with this approach is that it is based mainly on Anatolian and Indo-Iranian data. In most other Indo-European languages, infixed stems were fully integrated into respective verbal paradigms, so there is no semantic difference between infixed and infixless stems, e.g., Lat. *vincō* ‘I win’ vs. *vīcī* ‘I won’.

**7.4.3** Moreover, nasal verbs in Germanic, Baltic and Slavic languages are generally intransitive and inchoative. Even in Vedic, we find intransitive usages of infixed verbs, although this semantic function could have been related to thematization, see Kulikov 2000: 195f. The intransitive character of Germanic and Balto-Slavic nasal verbs is usually explained as secondary.

There are several intransitive infixed verbs in Lithuanian that correspond to Sanskrit or Latin transitive verbs, e.g., Skt. *limpāti* ‘to attach’ and Lith. *limpù* ‘to stick to’. Stang (1970: 78f.) believes that these Lithuanian verbs acquired the intransitive meaning from the perfect and the thematic aorist stems during the restructuring of the Lithuanian verbal system. For the overview of the theories for the development of the nasal presents in Baltic languages, see Schmalstieg 2000: 154ff., cf. also Rasmussen 1997: 251 and 6.3.5 above.

In Slavic languages, there are traces of transitive infixed stems, for instance, in Old Russian *krǫnju* ‘to buy’, see Vaillant 1966: 304ff., LIV: 395f. By contrast, intransitive verbs with the suffix *\*-nq-* became productive relatively late (see Stang 1966: 338, Vaillant 1966: 281), while intransitive infixed verbs *bqđq* ‘will be’ and *lēqo* ‘will lie’, have no infixed counterparts elsewhere and therefore must be late as well.

As to Gothic and Old Icelandic inchoative verbs in *-na-*, Lehmann (2004: 120) points out that Western Germanic languages do not have parallel formations, therefore the Gothic and Old Icelandic verbs in question are likely to be innovations. Jasanoff (1973: 865f.) argues that Gothic nasal presents of the 4<sup>th</sup> class go back to middle

forms. For an overview of Germanic nasal stems, see the recent work by Scheungraber (2014).

Thus, it is possible to view all intransitive nasal formations in Baltic, Slavic and Germanic as a relatively recent development, with anticausatives built to causative nasal stems<sup>215</sup>, the causative meaning of which was lost at a later stage. However, it cannot be excluded that already in PIE nasal stems could be intransitive as well as transitive, and in the Balto-Slavic and Germanic it was the intransitive usage that became dominant.

**7.5.** According to Hopper and Thompson (1980), transitivity is to be interpreted as a scale rather than a binary opposition, and verbs can occupy various positions in the transitivity hierarchy. Hopper and Thompson proposed 10 criteria of transitivity degree (ibid. 252):

	High transitivity	Low transitivity
A. Participants	two part. or more	1 participant
B. Kinesis	action	non-action
C. Aspect	telic	atelic
D. Punctuality	punctual	non-punctual
E. Volitionality	volitional	non-volitional
F. Affirmation	affirmative	negative
G. Mode	realis	irrealis
H. Agency	A in high potency	A in low potency
I. Affectedness of O	totally affected	O not affected
J. Individuation of O	highly individuated	O not individuated

This approach has been applied to nasal stems in Indo-European. Meiser (1993) argues that the function of the infix in PIE was raising transitivity rather than causativization, i.e. the infixed stems had a higher position in the transitivity hierarchy than their infixless counterparts. He argues that the root *\*ueid-* ‘to see’ has the

<sup>215</sup> On this phenomenon, see Haspelmath 1993.

meaning ‘to find’ exactly in those languages where a nasal present to this root is attested (Skt. *vindāti*, Av. *vīnasti*, OIr. *ro-finnadar*, Arm. *gtanem*). The branches where the infixed stem is not attested (e.g., Lat. *videō*, Goth. *witan*, OCS. *videti*, Lith. *veizdėti*) retained the meaning ‘to see, observe’. ‘To find’ is higher in the hierarchy than ‘to see’ according to several criteria, such as volitionality or affectedness of object.

**7.6** A similar approach, in my opinion, can be applied in determining the function of the nasal stems in Hittite. A causative/factitive function is the most obvious, but the suffix *-nu-* and the infix *-nin-* (in *hunink-* ‘to scar, crack’) may also have telic as well as intensive function (see 4.14-15). If one wants to find an explanation for the polysemy of the suffix *-nu-* and the infix, raising transitivity is perhaps the most likely underlying function of these morphemes<sup>216</sup>.

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<sup>216</sup> Crosslinguistically, Akkadian D-stems provide another example for such a polysemy. The D-stem is often described as factitive (bringing into a condition or state), but there are also resultative and even intransitive durative meanings (von Soden 1995: 143f.). Kouwenberg examined the relations between the basic stems, or G-stems, and derived D-stems and showed that D-stems to intransitive G-stems are transitive and therefore ‘factitive’, but the D-stems to already transitive G-stems preserve the valency of the G-stem (Kouwenberg 1997: 920). The meaning of individual D-stems made to transitive G-stems is largely unpredictable, and often there is no clear difference, but D-stems are generally used in sentences with high degree of transitivity (agentive subject, strongly affected object, reference to a salient action) and with a plural element (ibid. 196f.). The factitive meaning of D-stems resulted from their association with high transitivity, and seems to be one of possible semantic extensions of the high transitivity, others being duration and intensity (ibid. 436).



## Conclusions

**8.1** This monograph discussed the Hittite reflexes of two PIE verbal classes, the verbs with the nasal infix and the verbs with the suffix *\*-néu/nu-*. In PIE, these were two different, but related, types. The Hittite imperfective suffix *-anna/i-*, which may also be related, is treated in a separate chapter.

In Hittite, infixed verbs belong to various types of the *mi-* and *hi-* conjugation. Infixes are found only in the roots that end in a velar or a laryngeal (certainly *\*h<sub>1</sub>* and *\*h<sub>3</sub>*, perhaps *\*h<sub>2</sub>* as well). This distribution markedly differs from the situation in other IE languages where we find many infixed present stems made from the roots with a dental or labial stop in the auslaut. The shape of the infix varies: most verbs generalized the weak stem *-n-*; some verbs made from roots ending in a velar stop developed a new infix *-nin-* based ultimately on the full grade of the PIE infix *\*-né-*; two other verbs, namely *hink-* ‘to grant’ and *tamink-* ‘to attach’, in my opinion, have partially preserved the original ablaut in the infix.

The PIE suffix *\*-néu/nu-* is continued in Hittite and Luwian as *-nu-*. In the singular, one would expect *-nū-* < *\*-néu-*; there are, however, only two possible instances of preservation of *-nū-*, see 4.4. It appears that the ablaut was mostly levelled in favor of the zero-grade. Both in Hittite and Luwian, *nu-*verbs form a numerous and very productive type of *mi-*verbs.

An important difference is that in non-Anatolian Indo-European languages the infix and the suffix *\*-néu/nu-* normally appear only in the present stem; they are a part of verbal inflection. In Hittite, the formations with the infix or the suffix *-nu-* are distinct verbs that are derived from other verbal or nominal stems.

**8.2** The shape of the infix in Hittite is compatible with that of Indo-Iranian and PIE; there are traces of ablaut in both infixed and *nu-*verbs. However, only a few Hittite nasal verbs have parallel nasal formations in other languages, even though there are about 20 infixed verbs and more than 100 *nu-*verbs in Hittite. Moreover, only a few

Hittite *nu*-verbs and one infixated verb (*sunna-* ‘to fill’) have parallel formations in other Anatolian languages. Together with the limited distribution of infixated stems, this fact speaks in favor of productivity of these types in Proto-Anatolian and Proto-Hittite and of a late date of formation for most of them.

In this respect, the nasal stems are similar to other stem types in Hittite: many verbal suffixes (e.g., *-ye/a-*, *-ske/a-*, *-ahh-*) have counterparts in other Indo-European languages, as do many Hittite verbs; however, suffixed or reduplicated verbal stems can only rarely be immediately compared to suffixed or reduplicated verbal stems in other Indo-European languages, which points to a post-PIE date of formation for most Hittite morphologically extended stems.

**8.3** The function of the suffix *-nu-* and the infix can be described as causative or factitive in most verbs; however, this is not the only function, and in *hunink-* ‘to scar, crack’ and some *nu*-verbs these morphemes rather have an intensive or terminative/telic function. Crosslinguistically, causative markers often have other functions, most often intensive. Therefore, the polysemy of the Hittite nasal formations is not peculiar from a typological point of view. The original function of the nasal types in PIE, if there was any, was likely to increase the transitivity of a verbal stem.

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## Samenvatting

Het Hittitische werkwoordsysteem is beduidend eenvoudiger dan het Proto-Indo-Europese werkwoordsysteem zoals dat vooral op de basis van het Grieks en Vedisch Sanskrit gereconstrueerd wordt. Tot op heden is er geen consensus over de vraag of dat komt doordat het Hittitische werkwoordsysteem het resultaat is van een versimpeling, of dat het een eerder stadium representeert waarin bepaalde werkwoordscategorieën, zoals het perfectum, nog niet ontwikkeld waren. In dit proefschrift behandel ik de Hittitische werkwoorden en werkwoordsformaties die (mogelijk) een nasaal-infix bevatten alsmede de zogenoemde *nu*-werkwoorden. Van deze groepen behandel ik hun ontwikkeling van het Proto-Indo-Europees tot aan het Hittitisch, en probeer ik vast te stellen in hoeverre deze Hittitische ‘nasaal-werkwoorden’ verwant zijn aan vergelijkbare formaties in de andere Indo-Europese talen. Omdat in het Hittitisch nasaal-werkwoorden relatief talrijk zijn, zou men *a priori* verwachten dat een significant aantal van hen één-op-één corresponderen met nasaal-geïnfigeerde en *nu*-stam-werkwoorden in de andere oude Indo-Europese talen. Dit is echter niet het geval: het aantal van zulke correspondenties is in feite beperkt. Dit suggereert een langdurige periode van onafhankelijke ontwikkeling van het Hittitische werkwoordsysteem. Een belangrijk verschil tussen, aan de ene kant, de Hittitische nasaal-geïnfigeerde en *nu*-werkwoorden en, aan de andere kant, de corresponderende morfemen in het Vedisch Sanskrit en andere Indo-Europese talen, is dat in het Hittitisch deze affixen tot het domein van de woordformatie gerekend moeten worden, en niet tot het domein van de inflectie, zoals dat in het Vedisch het geval is.

Naast de behandeling van de formele en etymologische aspecten van deze werkwoorden, worden in dit proefschrift ook de semantische eigenschappen van de nasale affixen bestudeerd. In de Hittitologische literatuur wordt vaak gesteld dat zij een causatieve of factitieve betekenis hebben, maar deze functies zijn niet voor alle werkwoorden met zulke affixen van toepassing. Er zijn nasaal-geïnfigeerde en *nu*-

werkwoorden die duidelijk niet causatief zijn, en er bestaan zelfs verscheidene intransitieve *nu*-werkwoorden. In dit proefschrift wordt daarom beargumenteerd dat de polysemie van nasale affixen het best te verklaren is door aan te nemen dat hun onderliggende functie het verhogen van transitiviteit (“*raising in transitivity*”) is.

## Summary

It has been long debated whether the Hittite verbal system is a simplification of the Proto-Indo-European verbal system as it is reconstructed mainly on the basis of Greek and Vedic Sanskrit, or whether it reflects an earlier stage in which certain categories, e.g. the perfect, had not yet developed. In this thesis I discuss Hittite verbs and formations that contain or may contain a nasal infix as well as *nu*-verbs, in order to outline the development of these types from PIE to Hittite and establish the extent to which the Hittite nasal verbs are related to comparable formations in the other Indo-European languages. Since in Hittite the nasal infixed verbs are relatively numerous and *nu*-verbs are very numerous, one would *a priori* expect to find a significant number of direct correspondences with infixed and *nu*-stem verbs in other ancient Indo-European languages. This is, however, not the case: the amount of such correspondences is in fact limited. This suggests a protracted period of independent development of the Hittite verbal system. A significant difference between the Hittite nasal infix and the suffix *-nu-*, on the one hand, and their corresponding morphemes in Vedic and other IE languages, on the other, is that in Hittite these affixes belong to the domain of word formation rather than inflection, as is the case in Vedic.

Apart from treating the formal and etymological aspects of these verbs, this study also focuses on the semantics of the nasal affixes. In Hittitological literature they are often assumed to have a causative or a factitive meaning, but these functions do not cover the semantics of all the verbs with these affixes: there are infixed and *nu*-verbs that are clearly not causative, in fact there are even several intransitive *nu*-verbs. In this thesis it is therefore argued that the best solution to embrace the polysemy of nasal affixes is to assume that the underlying function of these morphemes is raising in transitivity.

## Curriculum Vitae

Andrey Shatskov was born on 31 October, 1979, in Leningrad, USSR (now St. Petersburg, Russia). At school he studied classical languages and became interested in linguistics, so entering the General Linguistics Department of the St. Petersburg State University was a logical choice. While a student, he developed an interest in Comparative Indo-European Linguistics and especially in Hittite historical grammar. He did several courses on Akkadian at the Uppsala University (2001) and on Hittite and other Anatolian languages, as well as Sumerian, at the University of Chicago (2003), and finally graduated from St. Petersburg State University in 2004. The same year he was awarded a Huygens scholarship and completed a one year master's program in Comparative Indo-European Linguistics at the Leiden University. In the same year he became a PHD student at the Institute for Linguistic Studies in St. Petersburg. The promotion took place in November 2007. At present he is a research fellow at the Institute for Linguistic Studies and a part-time lecturer at the St. Petersburg State University.