Acta Linguistica Petropolitana. 2022. Vol. 18.1. P. 246–266
DOI 10.30842/alp23065737181246266

Hittite reflexes of the PIE root **welH-*

H. Craig Melchert
University of California, Los Angeles (Los Angeles, USA);
melchert@humnet.ucla.edu

Abstract. PIE root structure is problematized by the status of so-called "root extensions" or "enlargements" root finally. The nature of the evidence for laryngeals root initially and root finally creates further difficulties both in establishing their existence and in their precise identification. The present inquiry (re)evaluates the merits of one proposed redefinition of a PIE standardly reconstructed as **CeCH*(*dʰ*)- rather as **HCeCH*(*dʰ*)-. The textual evidence upholds the formally attractive derivation by Kloekhorst [2008: 360] of the Hittite verb *ḫulli*/*a*- from the PIE root **welH*- 'to be powerful, rule' redefined as **h₂welh₁*-. The verb's genuine sense 'to defeat; to do violence to' is compatible with such an historical account. A parallel semantic development is provided by German *Gewalt* 'power, violence' and its derivatives. Thus, the denominal verb *gewältigen* is attested historically with meanings both 'to have power (over)' and 'to overcome' and 'to do violence to'. However, the existence of an extended variant **h₂welh₁-dʰ*- in Anatolian remains entirely unproven. The evidence for reconstructing a verbal base **ḫult(a)*- is sparse, and the only context leaves open many possibilities for its interpretation. Likewise, the meanings of its likely derivatives, $^{(LÚ)}$*ḫuldāla*- and *ḫuldalā(i)*- as well as its possible Luwian cognates, ^{LÚ}*ḫūwandāla*- and :*ḫūwantalā(i)*-, are uncertain, although they may refer to protection or guarding. Overall, there is nothing to motivate their connection with a presumed extended root **h₂welh₁-dh*- 'to be powerful'.

Keywords: Hittite *ḫulli*/*a*-, *ḫuldāla*-, *ḫuldalāi*-, Luvian *ḫūwandāla*-, **ḫūwantalā*(*i*)-, PIE **wal-*/*wald*(*ʰ*)-, **welH*(*dʰ*)-, **h₂welh₁*(*dʰ*)-, root extensions.

© H. Craig Melchert, 2022

Хеттские рефлексы праиндоевропейского корня **welH-*

К. Мелчерт
Калифорнийский университет в Лос-Анжелесе (Лос-Анжелес, США);
melchert@humnet.ucla.edu

Аннотация. Анализ сструктуры праиндоевропейского корня осложняется статусом так называемых «расширителей корня». Реконструкция ларингальных в начале и конце корня затруднена тем, что основывается в значительной степени на косвенных данных. В данной статье дается критическая оценка пересмотру реконструкции индоевропейского корня **CeCH*(*dʰ*)-, который теперь предложено восстанавливать как **HCeCH*(*dʰ*)-. Анализ контекстов поддерживает формально привлекательную этимологию А. Клукхорста [Kloekhorst 2008: 360], возводящего хеттский глагол *ḫulli*/*a*- к праиндоевропейскому корню **h₂welh₁*- ‘быть могущественным, править’ (ранее реконструируемому как **welH*-). Исходное значение корня ‘побеждать, применять насилие’ сопоставимо с подобной этимологией. При этом на текущий момент недостаточно данных для подтверждения существования расширенного варианта этого корня **h₂welh₁-dʰ* в анатолийских языках.

Ключевые слова: хеттский, *ḫulli*/*a*-, *ḫuldāla*-, *ḫuldalāi*-, лувийский, *ḫūwandāla*-, **ḫūwantalā*(*i*)-, праиндоевропейский **wal*-/*wald*(*ʰ*)-, **welH*(*dʰ*)-, **h₂welh₁*(*dʰ*)-, расширители корня.

1. Introduction

Our honorand’s extensive range of interests includes the problem of the structure of the PIE root: I cite here merely [Kazansky 2016] and the ongoing project *The Proto-Indo-European Root and Stem-Formation Constituents*. This very modest contribution in his honor cannot hope to treat this issue more than tangentially, but may serve as a further example of the complexities and indeterminacies that confront us.

We find in the standard handbooks a PIE root ‘to be strong, to hold power, rule’, represented by verbal reflexes in Lat. *ualēre* ‘to be strong’, OIr. *follnadar* (and variants) ‘rules’, and ON *olla* ‘ruled’ and by nominal forms such as OIr. *flaith* ‘rule, ruler’ and TochAB *wäl*/*walo* ‘king’. There are also derivatives of an “enlarged” or “extended” root in Goth. *waldan* ‘to rule’ (and Germanic cognates), Lith. *veldė̃ti* ‘to govern; possess’, etc. See for further material [Pokorny 1959: 1111–1112] and [LIV^2: 676–677].

For an analysis of at least some root “extensions” in *-*d*^{h}- as reflecting “light verb” constructions with *d^h*eh*$_1$- ‘to put’ I refer readers to [Kölligan 2018], building on [Hackstein 2002: 8]. For such a derivation of the extended *-*d*^{h}- reflexes of *(*h*$_2$*)welh*$_{(1)}$- compare also [Kroonen 2013: 569]. Here I note only that per Kölligan [2018: 231–233] Hitt. *mald-* ‘to solemnly recite, vow’ attests that Anatolian has at least one example of the phenomenon, even if it was of limited productivity there. We may thus entertain the possibility of further examples.

LIV^2 gives the root as **welH-*, but none of the subfamilies in which it is attested preclude an initial laryngeal. Kloekhorst [2008: 360] suggests that Hitt. *ḫulli*/*a-* ‘to smash, defeat’ (sic!) may belong to this root, redefined as *h_2welh_1-, while Puhvel [1991: 370] with due reserve argues that if the verb **ḫultā(i)-* (attested only in the hapax *ḫulteškezzi*) really means ‘to be in charge, officiate’, then it may well reflect the “extended” variant. Neither of these proposals has to my knowledge received much attention — unsurprisingly, since further possible related Hittite material for the latter is sparse, and the prevailing view is that the primary sense of *ḫulle*/*a-* is that of ‘to strike’, from which ‘to defeat’ is secondary.[1] By this reasoning its derivation from a root ‘to be strong, rule’ is not straightforward. I contend in what follows that a thorough review of the attestations makes Kloekhorst’s derivation of *ḫulle*/*a-* entirely viable, but any connection of **ḫultāi-* with *h_2welh_1-d^h- is unprovable at best.

[1] As the author kindly reminds me (p. c.), Shatskov [2017: 74–75] attractively compared TochA *wäl*^{ā}- ‘to shatter’, derived following Hackstein from a root *h_2welh_1-. The status of TochA *wäl-* ‘to die’ remains debated. Compare [Malzahn 2010: 893–894].

2. Hittite *ḫulli/a-*

Before turning to the semantic issue, I must first address the formal aspects of *ḫulli/a-*. Already Neu [1974: 73–78] established that the Old Hittite inflection is that of a *mi*-verb with allomorphy *-e/i~-a-*. The *mi*-verb *ḫulliye/a-* and the *ḫi*-inflected present third singular *ḫullai* and preterite third singular *ḫullaš* are later innovations with ample parallels.[2] It is important to insist that the implication by Puhvel [1991: 363–368] that the only stems are *ḫulla-* and the secondary *ḫulliye/a-* is patently false. There is now a consensus that the correct prehistoric morphological analysis of *ḫulli/a-* is that of Kloekhorst [2008: 359]: it represents a nasal-infix present to a root in a final first laryngeal: a virtual **h₂wl̥-né-h₁-ti, *h₂wl̥-n-h₁-énti*. See among others [Melchert 1994: 82; Oettinger 2002: xx; Yates 2015: 148] against [Oettinger 1979: 264; Melchert 1984: 16]. This verb is entirely parallel to *d(u)warni/a-* 'to break' and *zinni/a-* 'to finish, bring to an end' [Oettinger 1979: 303–313] and [Kloekhorst 2008: 906, 1037].[3]

I was correct [Melchert 1984: 114–115] to insist on the *i*-vocalism of the allomorphs *ḫulli-*, *duwarni-*, and *zinni-*, but about nothing else. As stated there, a reading as /i/ is unavoidable for the last two, consistently spelled through the history of Hittite with the unambiguous sign <ni>, despite the availability of <ne> for /ne:/, expected from **-né-h₁-*. The variant *ḫulliš* also only makes sense if the regular preterite third singular was *ḫullit* (cp. the opposite use of *(i)yannit* for regular *(i)yanniš*). There is, however, a phonological account for the unexpected short(!) /i/: the Anatolian "accent retraction" rule as explicated by Yates [2015].

I have rehearsed the preceding facts, because the existence of the allomorph *ḫulli-* and its manifest parallelism with *duwarni-* and *zinni-* are fatal to attempts to derive *ḫulli/a-* from the same root as Hitt. *walḫ-* 'to strike,

[2] See [Hoffner, Melchert 2008: 201] with notes. Against both Neu and Hoffner, Melchert we find *ḫūllai* already in Middle Hittite (*HKM* 47 Ro 5), while one must add the New Hittite preterite third singular *ḫullaš* in *Bo* 86/299 i 98.

[3] But for the root etymology of *zinni/a-* < **kʷi-né-h₁-ti, *kʷi-n-h₁-énti* see [Rieken 2019: 312–315].

beat'. Even if one concedes an ad hoc dissimilation of *h_2welh_2- to *walḫ*- [Melchert 1984: 16], following [Oettinger 1979: 264] or grants the existence of three extra laryngeals, allowing a preform *$H_1w\underset{\circ}{l}$-né-$A^w{}_1$-*ti* [Puhvel 1991: 368], it is not credible that the putative root-final *h_2 or variant of *h_3 would have failed to color the suffixal -*e*-.[4] In formal terms Kloekhorst's account of *ḫulli*/*a*- is impeccable and without credible competition.[5] The remaining issue is: is it viable semantically?

A reexamination of all evidence for *ḫulli*/*a*- shows that the basis for a sense 'to strike, smash' is not nearly as solid as the standard translations in Hittite lexica and text editions imply. The overwhelming majority of examples (more than fifty) is found in military contexts, always with persons as objects, and in all clear instances the meaning is 'to defeat'. The facts are ably presented in [HW^2, 3: 686–688], and full citations are unnecessary. Unsurprisingly, a generic 'enemy' is the most frequent object, but one also finds 'troops', 'horses' and 'chariots' (as correctly per HW^2, loc. cit., the latter stand for 'chariot fighters'), kings, and specific enemies (e.g., Hurrians or named individuals, such as Aparru in the Annals of Muršili II, *KBo* 16.17+2.5 iii 39–40).

What one must insist upon is that in all unambiguous cases the meaning is 'defeat', *not* merely 'strike, attack' (for which the well-established term

[4] Derivation from a nasal-infix verb also explains directly (without analogy) the shape of the original preterite first-person plural *ḫullumen* and the verbal noun *ḫullumar* ([Melchert 1994: 82], but anaptyxis following [Eichner 1988: 136–137] is likelier than a "Sievers" treatment as per [Melchert 1994: 57]).

[5] [LIV^2: 676] leaves the identification of the root-final laryngeal open but cites McCone's suggestion [McCone 1991: 16] that the earliest inflection of OIr. *follnadar* favors *h_2. However, lack of assimilation of the *-*ln*- precludes direct derivation from a nasal-infix present and suggests influence from the adjective *follán* 'sound, hale': see [Joseph 1982: 48] and [Schumacher 2004: 655–656]. The attested inflection of *follna*- thus provides no probative evidence for the identity of the root-final laryngeal. As Lionel Joseph reminds me (p. c.), OIr. *denaid* 'sucks' and cognates < PIE *$d^heh_1(i)$- also point to a Celtic preform *di-na- (cp. [Schumacher 2004: 274]). One must conclude with Joseph [1982: 42], Schumacher, loc. cit., and Zair [2012: 166] that Celtic evidence cannot identify the root-final laryngeal of *welH-. I am grateful to Lionel Joseph and Stefan Schumacher for their counsel on this issue.

is *walḫ*-) or 'fight (against)', which is expressed consistently by *zaḫḫiya*- (or a syntagm with the noun *zaḫḫāi*-). The ritual in *KUB* 17.28 iv 45–56 clearly is for a *defeated* army, not one that is merely "struck" (attacked). The verbal noun *ḫullumar* in the Deeds of Šuppiluliuma (*KBo* 14.4 i 28) also undeniably refers to a defeat, not merely a battle or attack (thus with [Güterbock 1956: 80]). The meaning 'to defeat' is confirmed by the Akkadian equivalents.[6] In the *res gestae* of Hattušili I, Hittite *ḫulliyanun* in *KBo* 10.2 i 35 and ii 16 matches Akkadian *aduk* in *KBo* 10.1 Ro 16 and 33, rendered correctly by de Martino [2003: 41, 53] as "I routed" (*sbaragliai*) and by Devecchi [2005: 41, 45] as "I defeated" (*sconfissi*/*provocai sconfissa*).[7] Similarly, we find in the same text *ḫulli*/*a*- equated to Akkadian *abāku*, once with "chariots" (i.e. chariot fighters) and once with "troops" as object (*KUB* 40.6+23.33:9 = *KBo* 10.1 Ro 26 and *KBo* 10.2 iii 33 = *KBo* 10.1 Vo 21 respectively).[8]

As correctly asserted by Puhvel [1991: 366–367], the meaning 'defeat' likewise imposes itself for some instances of the derived noun *ḫullanza(i)*- and is compatible with the rest, as well as for *ḫullanzatar* and *ḫullanzeššar*. Otten [1973: 38] concedes that 'fight' cannot be correct for *ḫullanza(i)*-, since in *KBo* 4.14 iii 29 it refers to something negative. However, he then

---

[6] As per Neu [1974: 76], the supposed restoration and equation of Hitt. [*ḫ*]*ullatteni* in *KUB* 26.35 Vo 5 with Akk. *tašallaṭa* in *KBo* 1.1 ii 23 (Treaty of Šuppiluliuma I with Šattiwaza) is quite doubtful. More likely is [*š*]*ullatteni* 'you shall [not] act overweeningly' matching Akk. 'you shall not act high-handedly.' Cp. [Beckman 1996: 42, §11] and [CAD, 17: 239a]. The Akkadian verb does *not* mean 'to split' (*pace* [Puhvel 1991: 364]).

[7] For Akkadian *dâku* as 'defeat', especially in texts of Boğazköy, see [CAD, 3: 41b] and Beckman's translation [1996: 38] of *KBo* 1.1 Ro 14 and of other passages. Just what nuance the accusative *damta=šu*/ *danta=šunu* adds to the force of the verb is not clear: see [Devecchi 2005: 40[96]] with references. Compare perhaps [CAD, 3: 74a] sub *damtu* A.

[8] The example with "chariots" as object might suggest "overturned" (see [CAD, 1: 8–10] under *abāku* B), as it is taken by Saporetti [1965: 81], but this does not fit the second. More likely we are dealing with *abāku* A in its sense 'to drive away' (see CAD, 1: 5b). Devecchi [2005: 43 and 57] renders accordingly as *ha sbaragliato*/*mise in fuga*. De Martino [2003: 49 and 75] likewise has *sbaragliai* for the first Hittite passage, but wrongly substitutes *ha combattuto* for the second. The sense is "defeated, routed/put to flight," in both instances.

without justification declares that the word must refer to an *internal* problem and argues for 'rebellion, revolt'. He is then forced to suppose that *ḫullanzan ḫullanun* in the Anitta Text (*KBo* 3.22 Ro 11) means 'I put down the rebellion,' despite the fact that such an interpretation is quite impossible for a *figura etymologica*, in which the noun must express a result of the verb. Nevertheless, he has been widely followed: see among others Neu [1974: 77–78] and (with due hesitation!) [HW^2, 3: 696].

Otten's premise that the noun refers to an internal problem is refuted by *KUB* 23.16: 8–15, where the *Ḫurlaš ḫūllanzain* (line 15) has clearly been inflicted (*ḫūlliyawen* line 9) by the Hittite king Tutḫaliya and Kantuzzili (see line 7). Only "we defeated" and "the defeat of the Hurrian(s)" makes coherent sense. Likewise, then, one must understand *ḫullanzan ḫullanun* with Puhvel [1991: 364] as a genuine *figura etymologica* "I inflicted a defeat," in which the action of the verb brings the result expressed in the noun. As correctly seen by Beckman [2019: 130], *ḫullanzaiš* in *KBo* 4.14 iii 29 refers also to a potential defeat. The appearance of *ḫullanzai-*, *ḫullanzatar*, and *ḫullanzeššar* in lists of evils (sometimes specified as "evil, bad") is entirely compatible with the sense 'defeat'.[9] I add in conclusion that we know the real Hittite word for 'to rebel, revolt' and matching nouns: the verb *waggariya-* and derivatives: see correctly Tischler [2016: 219–222], including reference to the Akkadian equivalent.

The second well-established use of *ḫulli/a-* (with perhaps a dozen attestations) is seen in the following:

(1) *AWAT tabarna* ^{m}*Ḫattušili* LUGAL.GAL *U* ^{f}*Puduhepa* MUNUS.LUGAL.GAL ^{URU}KÙ.BABBAR-*ti ŠA LĀ NĀDIYAM ŠA LĀ ŠE*[*BE*]*RIM kuiš=ma=an ḫullai*
'The word of the *tabarna*, Hattušili, the Great King, and of Puduhepa, the Great Queen, of Hatti is not to be rejected/repudiated (and) is not to be broken. Whoever rejects/repudiates it…' *KBo* 6.28+*KUB* 26.48 Vo 28–29 (Decree of Hattušili III; New Hittite).

[9] The instance of *ḫullātar* in *KBo* 21.8 iii 15 has the same status. In *KUB* 29.1 ii 36–37 it is used rather as 'ability to perform the act of *h.*', which is as compatible with 'to defeat, subdue' as it is with 'to strike' (cp. [Puhvel 1991: 366] and [HW^2, 3: 698]).

"Word" here and in similar passages refers to a verbal expression of will and thus a decree, injunction, or decision. Some contexts are compatible with a sense 'to contest, challenge' for *ḫulli/a-*, and one finds this rendering (or equivalents like *anfechten*, *bestreiten*) in both lexica and text editions.

There is evidence, however, that this is not a valid interpretation. First, one must reject the claim of [HW², 3: 685], following [Hoffner 1997: 3], that in the land-grant texts the Akkadian equivalent of *ḫulli/a-* is *ragāmu*. It is clear that in these formulaic texts the Akkadian match for *ḫulli/a-* is *nadû* in the sense 'to reject, repudiate', just as in the example cited: see [Rüster, Wilhelm 2012: 36–37]. Second, there are instances where 'to contest, challenge' makes no sense, because the subjects of *ḫulli/a-* are annulling their own previous verbal declaration:

(2) *uet=ma maḫḫan ABU=YA memian IŠME nu memiyan ABU=YA=pat ḫullaš*
'But when it happened that my father heard (of) the text, my father himself repudiated the decree.' [10] *Bo* 86/299 i 97–98 (Treaty of Tutḫaliya IV with Kurunta; New Hittite).

The full context shows that the two instances of *memiyan* 'word' have different referents, and the second refers to subject's own previous decree.

Against [Hoffner 1997: 39] and [HW², 3: 688], it also makes no sense to say that the parents of a daughter whom they have betrothed "contest" a commitment they have made. They clearly annul it (at the cost of returning twice the paid bride-price):

(3) *takku* DUMU.MUNUS-*aš* LÚ-*ni ḫamenkanza nu=šši kūšata piddaizzi appezzin=at attaš annaš ḫullanzi*
'If a daughter has been betrothed to a man, and he pays a bride-price for her, but afterwards the father (and) mother reject/repudiate it…' *KBo* 6.3 ii 11–12 (Hittite Laws; New Hittite copy of Old Hittite text).

[10] Likewise, but more freely Otten [1988: 15]: "Wie es aber geschah, (daß) mein Vater den Wortlaut erfuhr, da stieß mein Vater selbst (seine) Entscheidung um." So also Beckman [1996: 111]: "But when it happened that my father heard the text, then my father himself reversed the decision."

One should also likely understand *arḫa ḫūllai* in *HKM* 47 Ro 5 with a bird of augury as subject as "rejects" (with [HW^2, 3: 689]), used for the standard technical term *arḫa peššiya-* 'to reject' (see [Sakuma 2009, 1: 64–65]. [11] Unsurprisingly, verbal requests/demands (expressed by the Hittite verb *wēk-*) may also be subject to rejection (e.g., in *KUB* 34.53 Vo 9 and *KBo* 20.82 ii 27).

Given the preceding evidence and the extraordinarily severe punishment prescribed, it is also hardly credible to interpret *DIN* LUGAL and *DIN* ^{LÚ}DUGUD…*ḫullizzi*/*ḫūllazzi*/*ḫūlliyazzi* of §173a of the Hittite Laws as merely "contests" (*anfechten* in [HW^2, 3: 688]). One must with Hoffner [1997: 138] understand the offense as one of rejecting the legal judgment of the king or high dignitary. The example in *KBo* 6.29 iii 41–43 (a decree of Hattušili III) involving a claim to the priesthood of Šauška of Šamuha is as compatible with "rejects" as it is with "contests."

Of the four putative examples of 'to smash, shatter' cited by [HW^2, 3: 688], one may be set aside at once. The duplicate *KBo* 8.41: 4–5 assures us that [(*kī mān ḫ*)*ul*]*attati* ^{m}*Ḫapruziašš=a* [*QATA*(*M*)*M(A ḫ*)]*uladaru* in *KBo* 3.29: 14–15 is a simile: "As this was/has been *h*-ed, may also Hapruzziya be likewise *h*-ed." But there is no way to determine what the comparandum "this" refers to: the tentative suggestion *Becher* "cup" in HW^2, loc. cit., is pure speculation and carries no weight. Nothing refutes "was defeated" and "shall be defeated" [Puhvel 1991: 365–366].

The preceding context also makes less than probative the interpretation by Neu [1974: 13] of *ḫullizzi* said of a tablet in the Anitta Text:

(4) *kē udd*[*ā*]$^{?}$*r* [(*tuppiya*)]*z INA* KÁ.GAL=*YA* x[…] *URRAM ŠER*[*AM*] *k*[*ī tuppi* [*l*]*ē kuiški ḫul*[(*liēzzi*)] *kuiš=at ḫulli*[*zzi*] [12]
'These words on a tablet at my gate […]. Henceforth let no one *h.* th[is tablet]! Whoever *h*'s it…' *KBo* 3.22 Ro 33–35 (Anitta Text; Old Hittite text and tablet).

[11] Less likely is "defeats," as per [Hoffner 2009: 180].

[12] Restorations after the New Hittite copy *KUB* 36.98a: 4–5. The Old Hittite surely had *tuppit* and *ḫullizzi*.

Neu proposes *zerschlägt* "smashes, shatters," but the chances are at least equal that "tablet" is merely metonymic for "the words of the tablet," and that the sense is "rejects" (with [Carruba 2003: 320–321]; cp. also [Puhvel 1991: 364] "quashes").

There are, however, two incontrovertible examples referring to physical destruction:

(5) *nu šumenzan ŠA* DINGIR.MEŠ ALAM.ḪI.A *arḫa ḫuller*
'And they have smashed your statues.' *KUB* 31.24 ii 12 = *KUB* 17.21 ii 26–27 (Prayer of Arnuwanda and Ašmunikal; Middle Hittite text and tablet).

(6) *nu ŠA* ^{d}IŠKUR *linkiyaš* ^{NA4}KIŠIB *arḫa ḫullanzi*
'They will smash/break the seal of the oath of/by the Storm-god.' *KUB* 17.21 iv 19 (same text).

I follow Puhvel [1991: 364] and [HW^2, 3: 688] in assuming also in (6) a physical sense. The hesitant attempt by [CHD, L-N: 66a] ("will nullify(?)") to assign this to 'to reject, repudiate' seems quite strained. A seal does not refer to the content of a document.

There is one other example whose relevance for the sense of *ḫulli/a-* seems not to have been appreciated (it is missing in [HW^2, 3: 686–687] and merely listed by Puhvel [1991: 365]):

(7) *kāša* DUMU-*an* [DUMU.LÚ].U$_{19}$.LU *ḫullit anzaš«š»=a=war=an* [*aniy*]*auwanzi piēr*
'One has *h*-ed the child, the mortal; to us they have given him to treat ritually.' *KUB* 12.26 ii 22–24 (Myth and Ritual; pre-New Hittite text, New Hittite copy).

Lines ii 1–17 were edited by Watkins [2010: 358–360]. The entire extant text is edited by Melzer [2015]. As often in such texts, especially those available only in copies, it is hard to extract a coherent narrative for some portions. I will not try to do so here. I am confident in restoring "to treat ritually" in ii 24, based on lines ii 10–11. Despite one apparently successful treatment of the human child by the Sun-god and Kamrušepa (see ii 17), someone *h*-es the child, requiring further ritual treatment. We

may leave open the identity of the perpetrator and of those to whom the child was given for the second treatment. What does seem clear (with Melzer, who takes *ḫullit* as *schlug* "struck") is that someone has done physical violence to the child that requires healing. This example thus belongs with those preceding, not with 'to defeat' or 'to reject, repudiate'.

Our survey of the attested meanings of *ḫulli/a-* is complete. Rare as they are, the examples referring to physical violence done to persons and things cannot be dismissed. We should also not be unduly influenced by the Akkadian equivalents in defining Hittite *ḫulli/a-*. All examples in military context may be analyzed as 'to defeat', while 'to rout, put to flight' (cp. Akk. *abāku*) is not strictly provable for Hittite. Likewise, Akk. *nadû* 'to abandon, reject' does not preclude that the Hittite use with verbal expressions of will (decrees, legal judgments, etc.) also stems directly from 'to do violence to, violate' (cp. the English rendering 'to quash' by Puhvel [1991: 363–366] for this usage). [13]

Deriving a sense 'to defeat' from one of 'to strike' or 'to beat' is trivial (cp. German *schlagen* and English 'to beat' in that sense), and 'to quash' in both the physical and extended sense is also easily explained from the same source. However, the association of violence with power is also quasi-universal in human societies since recorded history, both sanctioned (in military context) and unsanctioned. There are comparanda within Indo-European suggesting that through this association roots originally referring to 'power, strength' can lead to derivatives with senses equivalent to those of Hittite *ḫulli/a-*. Latin *uīs* '(physical) strength, power' acquires the sense of 'violence': cp. *aliquī uim adferre* 'to do violence to someone', and the denominal verb *uiolō* attests not only the moral sense 'to violate' with objects such as *foedus* 'treaty' and *iūs* 'law' as well as persons, but also 'to do violence to' persons in a military context (see s. v. sections 2.b and 4 in [OLD^2: 228]). One must concede, however, that the latter use is rare, and the verb does not mean 'to overcome, defeat'.

[13] There is a possible parallel in Lycian, where *xtta-* 'to do violence to, harm' is used in N320, 34–5 and likely also in TL 45B, 4–5 with *mara* 'regulations, laws, stipulations': see [Melchert 2021], citing for the second [Schürr 2005: 151].

A better parallel for the full range of Hittite *ḫulli/a-* is provided by derivatives of German *Gewalt*, whose source is the extended form of our putative root **h₂welh₁-*. Like Latin *uīs*, the German noun acquires in its history the sense of 'violence', *in addition to* the original meaning 'power': see [DWb, 6: 4915 sub γ, 4944–4945, 4976–4977] for OHG, MHG, and NHG respectively. In standard current New High German derived verbs with the meanings 'to do violence to, violate' and 'to overcome, defeat' require prefixes (*vergewaltigen* and *überwältigen* respectively). But the simple denominal *gewältigen* is well attested historically not only as the expected 'to have power (over)' (from OHG), but also as 'to overcome' and 'to do violence to', both physically and morally (see [DWb, 6: 5177–5178]). I therefore see no obstacle to supposing that Hittite *ḫulli/a-*, with a nasal infix well-known for transitivizing effects (cp. Hitt. *ḫarnink-* 'to destroy' < *ḫark-* 'to perish'), likewise reflects the same root.

For reasons that should be obvious, I do not assert that the derivation of the meanings of *ḫulli/a-* 'to do violence to; defeat' from **h₂welh₁-* 'to be strong' imposes itself. I do contend that it is well within the normal parameters of semantic change, and in view of the manifest superiority of Kloekhorst's account of its shape and inflection, the latter should be given priority in the absence of any credible etymology from a root meaning 'to strike'.

3. Hittite **ḫultā(i)-*, ^{LÚ}*ḫuldāla-*, *ḫuldalā(i)-*

While Hittite *ḫulli/a-* is widely attested, the evidence for the set of words pointing to a base **ḫult(a)-* is sparse, and the contexts are of limited help in determining their meaning. The putative verbal stem **ḫultā(i)-* is at best attested just once: [14]

[14] The iterative stem *ḫulteške/a-* in a New Hittite copy is compatible with several stem classes in the base verb, including **ḫult-*, **ḫulte/a-* and **ḫultiye/a-* (see on this problem [Melchert 1984: 147–148]). This indeterminacy is irrelevant for the issue of the meaning.

(8) [ ]x LUGAL-*uš* ḪUR.SAG-*i paizzi* GAL-*in* ^{d}UTU-*un karapzi* [*nu ḫū*]*kkiškezzi ḫulteškezzi* [LUGAL-*i*=*wa*$^{?}$=*k*]*an kāš kāš ištarningain* EGIR-*pa dāš*…
'The king goes to the mountain (and) "lifts/raises" the great Sun-god.[15] He recites incantations and *h*-s (saying): 'This (or) that one has taken back the sickness [from the king]'…' *KUB* 29.1 ii 30–32 (Building Ritual; New Hittite copy of Old Hittite text).

I follow [Kellerman 1980: 14] and others in restoring dative singular of 'king' in the first line of the quoted speech, based on the "to him" in the following lines ii 36–38 and the partially parallel ii 17–22.

The context leaves open many possibilities for the meaning of *ḫulteškezzi*, and there are many competing suggestions. Kellerman [1980: 28, 52] and Marazzi [1982: 155] prudently leave the meaning open. Likewise Tischler [1983: 282], though he entertains the possibility that ^{LÚ}*ḫuldāla-* and further derivatives are related. Kloekhorst [2008] makes no mention of the word. Goetze [1969: 358] suggests "performs various incantations" (similarly [Mouton 2016: 103 with note 2], et al.). Puhvel [1991: 369–370] tentatively suggests "officiates," but explicitly characterizes this as "unproven." One must honestly conclude that no proposed interpretation remotely imposes itself.

Purely in formal terms, it is reasonable to suppose that the likewise hapax noun ^{LÚ}*ḫuldāla-* is either derived directly from the base of *ḫulteške*/*a-* [Puhvel 1991: 370] or from a substantive that is the base of both. Unfortunately, the context of ^{LÚ}*ḫuldāla-* is hardly more informative than that of *ḫulteške*/*a-*:

(9) [^{L}]^{Ú}*ḫuldālaš=a* ^{É}*ḫa*[(*lentiwaz kurš*)]*an dāi* [*t=ašta pa*]*rā pēda*[(*i*)]
(The king goes outside,) 'while the *h.*-man takes a/the hunting bag from the *h*-building and carries it out.' *ABoT* 1.9+*KBo* 17.74 i 33–34[!] with duplicates (Thunderstorm Ritual; Middle Hittite copy of Old Hittite text).

[15] The force of *karp-* 'to lift, raise' in this expression is less than obvious, but there is no doubt that the king invokes the Sun-god.

One must reject the equation of this word with LÚ UR.GI$_7$ 'hound master' (likely 'hunter') by Neu [1970: 39–40], merely on the basis of LÚ U[R.TU]R *kuršan udanzi t=an āppa kankanzi* in ii 27 of the same text. The second passage occurs minimally more than fifty lines after the first, many of which are very fragmentary. There is thus no assurance that the reference is to the same hunting bag. If it is, given the plural form of the verbs (a problem Neu recognizes, but brushes aside), one should rather understand: "They bring the hunting bag of the hound master and hang it up again." The context of ^{LÚ}*ḫuldāla-* tells us only that it refers to some functionary who *may* have some particular connection with the *kurša-*, but even the latter is inferential.

Despite attempts to deny it (see below), it is also clear that the verb *ḫuldalā(i)-* is denominal from $^{(LÚ)}$*ḫuldāla-*, and the context of its occurrence is more informative as to its meaning, though not necessarily as determining as has been assumed:

(10) *nu INA* ^{URU}*Kappēri tuzziyanun nu=ššan INA* ^{URU}*Kappēri kuit* É. DINGIR-*LIM ŠA* ^{d}*Hatipunā* EGIR-*an n=at ḫuldalānun n=at ŪL šaruwāir*

'And I pitched camp in K. And the temple of Hatipunā that was behind K. I *h*-ed, and/so they did not plunder it.' (And also the servants of the deity who were behind K. I left alone, and/so they continued to abide there.) *KUB* 19. 37 iii 35–38 (Annals of Muršili II; New Hittite).

A second example in the next paragraph iii 41–45 is entirely parallel, except that the action of *ḫuldalā(i)-* follows destruction of the city of Hurna and the temple is that of the Storm-god of Hurna.

Since the *editio princeps* by Götze [1933: 177], *ḫuldalā(i)-* has been understood as 'to spare' (*schonen*), and objectively that is undeniably the effect of the action expressed by the verb. One should note, however, that the king's action is preemptive, especially in the first case, where there is no indication that any harm had been done to the city. Several actions by the king could thus result in the lack of plundering. For example, 'to secure', either in the sense of 'to take control of' or 'to protect, safeguard' — or both.

Before proceeding further, we must deal with the possible relationship of our set of words with the Luvian loanword ^{LÚ}*ḫūwandāla-* and its derived verb :*ḫūwantalā(i)-*, especially since the analyses offered on this point have been contradictory and in part incoherent. The Luvian form of the base noun is attested in provisions of the Hittite king for local cults:

(11) 1 É 10 NAM.RA $^{LÚ.MEŠ}$*ḫūwandālanzi* :*warmamienzi* ^{d}UTU=*ŠI p*[*āi*]
'His Majesty gives one household (comprising) ten transportees, *w*. *h*-men.' *KBo* 12.53 Vo 8 + *KUB* 48.105 (Cult Inventories; New Hittite).

See Cammarosano [2018: 284–285], who plausibly argues [ibid. 273] that *ḫūwandālanzi warmamienzi* is an apposition to NAM.RA "transportees," describing their assigned duties/function.

The word appears in Hittitized form in *Bo* 86/299 i 93 as nominative plural $^{LÚ.MEŠ}$*ḫuwantaluš*, listed among workers and functionaries whom Tutḫaliya IV explicitly cedes to Kurunta along with the cities in where they reside. So far as they can be identified, the other categories belong to a wide spectrum, military and non-military (see [Otten 1988: 14–15] and [Beckman 1996: 110–111], with in part divergent translations), leaving quite open the role of the $^{LÚ.MEŠ}$*ḫuwantaluš*.

Finally, there is the verb :*ḫūwantalā(i)-*, attested twice in mutually restoring occurrences in a suggestive, but frustratingly incomplete context:

(12) […Ḫ]UL-*lu ŪL takkēšta* […ḪI].A ^{GIŠ}KIRI$_6$.ḪI.A :*ḫūwantal*[*āit*…]
x *katta arḫa ḫarganut*
'[…]did no evil to […] *h*-ed [ ]s and gardens […] destroyed [ ]' *KUB* 21.8 ii 3–5 (Restoration of Nerik; New Hittite).

ANA LÚ.MEŠ ^{URU}*Nerik* ḪUL-*lu* [*ŪL tak*]*kēšta* A.ŠÀ.A.GÀR. ḪI.A=*ma*<*a*=*š*>*maš* ^{GIŠ}GEŠTIN.[Ḫ]I.A […:*ḫūw*]*antalāit* KUR. KUR. ḪI.A=*ma*=*šmaš* […*arḫ*]*a* [*ḫarg*]*anut*
'…did no evil to the people of Nerik, but […] *h*-ed their fields, meadows, [and] vines, but […] destroyed their lands.' (ibid. 8–11).

The passage has, not unreasonably, been restored and understood as contrasting 'to do evil to' and 'to destroy' with :*ḫūwantalāi-* 'to spare',

thus taking the latter as effectively equivalent to *ḫuldalā(i)-* (e.g. [Neumann 1971: 301; Puhvel 1991: 429]).

The semantic comparison cannot be regarded as certain, but it is plausible. Attempts to equate the two verbs and their base nouns formally are not persuasive. Puhvel [1991: 370] derives both Hittite *ḫultāla-* and Luvian *ḫuwantāla-* from a preform **ḫuwaltāla-* by syncope and dissimilation respectively. However, he denies any connection of :*ḫūwantalāi-* and *ḫuldalā(i)-* with the respective nouns, deriving the latter verb by *assimilation* from the former [Puhvel 1991: 429]. His motivation is the inherently recherché account of :*ḫūwantalāi-* as a univerbation *ḫūwanta lāi-* 'to set loose to the wind', originally used of setting birds free.

This fanciful account must be firmly rejected on multiple counts.[16] First, as noted by Kloekhorst [2008: 368], the photo shows against the autograph that there is no space between the signs <ta> and <la> in [*ḫūw*]*antalāit* of *KUB* 21.8 ii 10, removing any independent support for a univerbation (likewise there is no space in line ii 4, *pace* [Cornil, Lebrun 1972: 17]). More importantly, there is no evidence that Luvian had a word †*ḫūwant-* 'wind' or a verb †*lā(i)-* 'to let go' (Luv. *lā-* means 'to take' and is cognate with Hitt. *dā-* 'idem'). One patently cannot analyze a Luvian word in terms of Hittite lexemes. Furthermore, that a Hittite stem *ḫult-*º attested in Old Hittite is either the source of or the reflex of a Luvian base **ḫūwant-* defies credibility.

Whatever the base nouns mean, Hittite(!) *ḫuldalā(i)-* and Luvian(!) *ḫūwantalāi-* are manifestly denominal to the respective base nouns ^{LÚ}*ḫuldāla-* and ^{LÚ}*ḫūwandāla-*, as per [Kronasser 1966: 480; Neu 1970: 39; Tischler 1983: 282]. Lack of a determinative in the derived verbs is not problematic: cp. Hitt. *šullā-* 'to treat as a hostage' to ^{LÚ}*šulla/i-* 'hostage'. Hittite scribes rarely use determinatives on verbs. That the two languages developed putative near synonyms by quite different means is entirely in order. To force a direct formal connection based on no more

[16] Likewise the similar univerbation accounts of Cornil and Lebrun [1972: 20] and Eichner [1979: 205], based on supposing that the alleged *ḫūwanta* belongs to the verb 'to run' (in different senses). The Luvian stem for 'to run' (*recte* 'to move') shows consistently *ḫui(ya)-*, and again there is no Luvian verb †*lā(i)-* 'to let go'.

than a shared initial sequence *ḫu-* and requiring ad hoc reshapings is wholly unjustified.

The contexts of both Hitt. *ḫuldalā(i)-* and Luv. *ḫūwantalāi-* suggest a meaning ‘to offer protection to’; more precisely given their derivation, ‘to provide a guard for’. Despite the summary dismissal by Puhvel [1991: 429], a similar sense is reasonable for Hitt. ^{LÚ}*ḫuldāla-* [Tischler 1983: 282], following [Neu 1970: 39]. He may be the keeper, caretaker, or similar of the hunting bag. The most that one can say is that a similar sense is compatible with the contexts of Luvian $^{LÚ.MEŠ}$*ḫūwandālanzi* (see (11) cited above) and that of the Hittitized $^{LÚ.MEŠ}$*ḫuwantaluš* (see [Otten 1988: 41] and more cautiously [Beckman 1996: 110]).

As properly underscored by Neu [1970: 40], the question remains open whether this tentative interpretation can be reconciled with the use of *ḫulteškezzi* to the putative base **ḫultā(i)-* cited in (8) above. I must furthermore emphasize the fragility of the very premise that Hitt. ^{LÚ}*ḫuldāla-* and *ḫuldalā(i)-* (and by implication the supposed Luvian synonyms ^{LÚ}*ḫūwandāla-* and *ḫūwantalāi-*) refer to protection or guarding/caretaking. Finally, even if all of this were proven to be more or less accurate (which is far from the case!), I see nothing to motivate any connection with a presumed extended root **h₂welh₁-dʰ-* ‘to be powerful’. Any etymologizing of the entire set of Hittite words must await further, more illuminating textual evidence.

Abbreviations

Akk. — Akkadian; Goth. — Gothic; Hitt. — Hittite; Lat. — Latin; Lith. — Lithuanian; MHG — Middle High German; NHG — New High German; OHG — Old High German; OIr. — Old Irish; ON — Old Norse; PIE — Proto-Indo-European; TochA — Tocharian A; TochAB — Tocharian A and B.

References

Beckman 1996 — G. Beckman. *Hittite Diplomatic Texts*. Atlanta: Scholars Press, 1996.

Beckman 2019 — G. Beckman. The Trials of Tudhaliya IV // A. Süel (ed.) *IX. Uluslararası Hititoloji Kongresi Bildirileri Çorum 08–14 Eylül 2014: Acts of the IXth*

International Congress of Hittitology Çorum, September 08–14, 2014. Çorum: Basım Tarihi, 2019. P. 125–133.

CAD — R. Biggs, J. Brinkman, M. Civil, W. Farber, I. Gelb, Th. Jacobsen, B. Landsberger, A. L. Oppenheim, E. Reiner, M. Roth, M. Stolper (eds.). *The Assyrian Dictionary of the Oriental Institute of the University of Chicago.* Chicago: The Oriental Institute, 1956–2011.

Cammarosano 2008 — M. Cammarosano. *Hittite Local Cults*. Atlanta: Society of Biblical Literature, 2008.

Carruba 2003 — O. Carruba. *Anittae res gestae*. Pavia: Italian University Press, 2003.

CHD — H. G. Güterbock, H. A. Hoffner, Jr., T.P.J. van den Hout, P. Goedegebuure (eds.). *The Hittite Dictionary of the Oriental Institute of the University of Chicago.* Chicago: The Oriental Institute, 1980–.

Cornil, Lebrun 1972 — P. Cornil, R. Lebrun. La restauration de Nérik. *Hethitica* 1972. Vol. 1. P. 15–30.

Devecchi 2005 — E. Devecchi. *Gli annali di Ḫattušili I nella versione accadica*. Pavia: Italian University Press, 2005.

DWb — J. Grimm, W. Grimm (eds.). *Deutsches Wörterbuch*. 1854– [1984]. Reprint. Band 6 = 4. Bd. 1e Abt. 3. Teil. Munich: Deutscher Taschenbuch Verlag, 1984.

Eichner 1979 — H. Eichner. Indogermanische Chronik 25 b — II. Anatolisch. *Die Sprache.* 1979. Vol. 25. P. 196–207.

Eichner 1988. — H. Eichner. Anatolisch und Trilaryngalismus. A. Bammesberger (ed.). *Die Laryngaltheorie*. Heidelberg: Winter, 1988. P. 123–151.

Götze 1933 — A. Götze. *Die Annalen des Muršiliš*. Leipzig: Hinrichs, 1933.

Goetze 1969 — A. Goetze. Hittite Rituals, Incantations, and Description of Festivals. J. B. Pritchard (ed.). *Ancient Near Eastern Texts relating to the Old Testament*. Third Edition with Supplement. Princeton: Princeton University Press, 1969. P. 346–361.

Güterbock 1956 — H. G. Güterbock. The Deeds of Suppiluliuma as Told by His Son, Mursili II (Continued). *Journal of Cuneiform Studies.* 1956. Vol. 10. P. 75–98.

Hackstein 2002 — O. Hackstein. Uridg. *CH.CC > *C.CC. *Historische Sprachforschung*. 2002. Vol. 115. P. 1–22.

Hoffner 1997 — H. A. Hoffner, Jr. *The Laws of the Hittites. A Critical Edition*. Leiden: Brill, 1997.

Hoffner 2009. — H. A. Hoffner, Jr. *Letters from the Hittite Kingdom*. Atlanta: Society of Biblical Literature, 2009.

Hoffner, Melchert 2008 — H. A. Hoffner, Jr., H. C. Melchert. *A Grammar of the Hittite Language.* Part I. Reference Grammar. Winona Lake: Eisenbrauns, 2008.

HW^2 — J. Friedrich, A. Kammenhuber, P. Cotticelli-Kurras, A. Hagenbuchner-Dresel, F. Giusfredi, J. Hazenboos, I. Hoffmann, W. Sallaberger (eds.). *Hethitisches*

Wörterbuch. Zweite, völlig neubearbeitete Auflage auf der Grundlage der edierten hethitischen Texte. Heidelberg: Winter, 1975–.

Joseph 1982 — L. Joseph. The treatment of **CRH* and the origin of **CaRa* in Celtic. *Ériu* 1982. Vol. 32. P. 31–57.

Kazansky 2016 — N. N. Kazansky. Rasshiritel kornja kak lingvisticheskaja problema [= Root extension as a linguistic problem]. *Indo-European Linguistics and Classical Philology.* 2016. Vol. 20. P. 393–400.

Kellerman 1980 — G. Kellerman. *Recherche sur les rituels de fondation hittites*. PhD Dissertation. Université de Paris-1, 1980.

Kloekhorst 2008. — A. Kloekhorst. *Etymological Dictionary of the Hittite Inherited Lexicon*. Leiden: Brill, 2008.

Kölligan 2018 — D. Kölligan. Funktionsverbgefüge und Sekundärwurzeln. E. Rieken (ed.). *100 Jahre Entzifferung des Hethitischen: Morphosyntaktische Kategorien in Sprachgeschichte und Forschung Akten der Arbeitstagung der Indogermanischen Gesellschaft vom 21. bis 23. September 2015 in Marburg*. Wiesbaden: Reichert, 2018. P. 219–237.

Kronasser 1966 — H. Kronasser. *Etymologie der hethitischen Sprache*. Band I. Wiesbaden: Harrassowitz, 1966.

Kroonen 2013 — G. Kroonen. *Etymological Dictionary of Proto-Germanic*. Leiden: Brill., 2013.

LIV^2 — *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstammbildungen*. 2., erw. und verb. Aufl., bearbeitet von Martin Kümmel und Helmut Rix. Wiesbaden: Reichert, 2001.

Malzahn 2010 — M. Malzahn. *The Tocharian Verbal System*. Leiden: Brill, 2010.

Marazzi 1982 — M. Marazzi. “Costruiamo la reggia, ‘fondiamo’ la regalità”: note intorno ad un rituale antico-ittita (CTH 414). *Vicino Oriente*. 1982. Vol. 5. P. 117–169.

de Martino 2003 — S. de Martino. *Annali e Res Gestae antico ittiti*. Pavia: Italian University Press, 2003.

Melchert 1984 — H. C. Melchert. *Studies in Hittite Historical Phonology*. Göttingen: Vandenhoeck & Ruprecht, 1984.

Melchert 1994 — H. C. Melchert. *Anatolian Historical Phonology*. Amsterdam: Rodopi, 1994.

Melchert 2021 — H. C. Melchert. Bilingual Texts in First-Millennium Anatolia. A. Payne, Š. Velhartická, J. Wintjes (eds.). *Beyond All Boundaries: Anatolia in the First Millennium BC.* Leuven; Paris; Bristol, CT: Peeters, 2021. P. 349–378.

Melzer 2015 — S. Melzer. *Ritual zur Versöhnung eines Kindes mit der Mutter*(?) (*CTH 441.1*). hethiter.net/: CTH 441.1 (INTR 2015-12-15) (consulted 5.9.2020).

McCone 1991 — K. McCone. *The Indo-European Origins of the Old Irish Nasal Presents, Subjunctives and Futures*. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 1991.

Mouton 2016 — A. Mouton. *Rites, mythes et prières hittites.* Paris: Éditions du Cerf, 2016.

Neu 1970 — E. Neu. *Ein althethitisches Gewitterritual*. Wiesbaden: Harrassowitz, 1970.

Neu 1974 — E. Neu. *Der Anitta-Text*. Wiesbaden: Harrassowitz, 1974.

Neumann 1971 — G. Neumann. Review of V. Haas, *Der Kult von Nerik: Ein Beitrag zur hethitischen Religionsgeschichte* (Rome: Päpstliches Bibelinstitut 1970). *Zeitschrift für Vergleichende Sprachforschung* 1971. Vol. 85. P. 299–301.

Oettinger 1979 — N. Oettinger. *Die Stammbildung des hethitischen Verbums.* Nürnberg: Carl, 1979.

Oettinger 2002 — N. Oettinger. *Die Stammbildung des hethitischen Verbums. Nachdruck mit einer kurzen Revision der hethitischen Verbalklassen*. Dresden: Verlag der technischen Universität Dresden, 2002.

OLD^2 — *Oxford Latin Dictionary*. Second edition. P. G. W. Glare (ed.) Oxford: Oxford University Press, 2012.

Otten 1973 — H. Otten. *Eine althethitische Erzählung um die Stadt Zalpa*. Wiesbaden: Harrassowitz, 1973.

Otten 1988 — H. Otten. *Die Bronzetafel aus Boğazköy. Ein Staatsvertrag Tuṯḫaliyas IV.* Wiesbaden: Harrassowitz, 1988.

Pokorny 1959 — J. Pokorny. *Indogermanisches Etymologisches Wörterbuch*. Berne: Francke, 1959.

Puhvel 1991 — J. Puhvel. *Hittite Etymological Dictionary. Vol. 3 Words beginning with H*. Berlin: Mouton de Gruyter, 1991.

Rieken 2019 — E. Rieken. Zurück in die Zukunft: Eine neue luwische Etymologie. A. A. Catt, R. I. Kim, B. Vine (eds.). *QAZZU warrai: Anatolian and Indo-European Studies in Honor of Kazuhiko Yoshida.* Ann Arbor: Beech Stave, 2019. P. 309–318.

Rüster, Wilhelm 2012 — C. Rüster, G. Wilhelm. *Landschenkungsurkunden hethitischer Könige*. Wiesbaden: Harrassowitz, 2012.

Sakuma 2009 — Y. Sakuma. *Hethitische Vogelorakeltexte*. PhD Dissertation. Julius-Maximilians-Universität zu Würzburg, 2009.

Saporetti 1965 — C. Saporetti. L'autobiografia di Ḫattuši I. *Studi Classici ed Orientali.* 1965. Vol. 14. P. 40–85.

Schumacher 2004 — S. Schumacher. *Die keltischen Primärverben: ein vergleichendes, etymologisches und morphologisches Lexikon*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck, 2004.

Schürr 2005 — D. Schürr. Das Pixre-Poem in Antiphellos. *Kadmos.* 2005. Vol. 44. P. 95–164.

Shatskov 2017 —A. Shatskov. *Hittite Nasal Presents*. PhD Dissertation. Universiteit Leiden, 2017.

Tischler 1983 — J. Tischler. *Hethitisches Etymologisches Glossar*. *Teil I. A — K.* Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 1983.

Tischler 2016 — J. Tischler. *Hethitisches Etymologisches Glossar*. *Teil IV. Lieferung 16. W–Z.* Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck, 2016.

Watkins 2010 — C. Watkins. Towards a Hittite Stylistics: Remarks on Some Phonetic and Grammatical Figures. R. Kim, N. Oettinger, E. Rieken, M. Weiss (eds.). *Ex Anatolia Lux: Anatolian and Indo-European studies in honor of H. Craig Melchert on the occasion of his sixty-fifth birthday*. Ann Arbor: Beech Stave, 2010. P. 356–362.

Yates 2015. — A. D. Yates. Anatolian Default Accentuation and Its Diachronic Consequences. *Indo-European Linguistics.* 2015. Vol. 3. P. 145–187.

Zair 2012 — N. Zair. *The Reflexes of the Proto-Indo-European Laryngeals in Celtic*. Leiden: Brill, 2012.