Finite verb formation in Lycian

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Abstract

In this thesis, the finite verb in Lycian is described. All verbal endings and stems are analysed and given both a synchronic description and, to the maximum possible extent, a diachronic explanation. First, all verbal endings are gathered and described both generally and individually. Subsequently, the verbal stems are categorised into types according to *stem formant* (last segment(s) before the ending) and *ending allomorphy* (e.g. *lenited* vs. *unlenited*). The last sections are devoted to a detailed individual treatment of all attested Lycian verbal stems. A schema is presented in which the established Lycian stem types are mapped to their original Proto-Indo-European types (section 4.6), e.g. Lyc. *s*-stems < PIE *sḱé/ó*-presents. Thereby, a comprehensive model is provided by which the Lycian finite verb may be understood in both its Anatolian and Indo-European context.

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Abbreviations

Languages

Alb.	Albanian	OCS	Old Church Slavonic
Av.	Avestan	OE	Old English
CLuw.	Cuneiform Luwian	OHG	Old High German
Cz.	Czech	OIcl.	Old Icelandic
DorGk.	Doric Greek	OIr.	Old Irish
Gk.	Greek	ON	Old Norse
Got.	Gothic	OP	Old Persian
Hitt.	Hittite	OPr.	Old Prussian
HLuw.	Hieroglyphic Luwian	PA	Proto-Anatolian
IonGk.	Ionic Greek	Pal.	Palaic
Lat.	Latin	PG	Proto-Germanic
Lith.	Lithuanian	PIE	Proto-Indo-European
Luw.	Luwian	PL	Proto-Luwic
Lyc.	Lycian	Russ.	Russian
Lyd.	Lydian	Sid.	Sidetic
MHG	Middle High German	Skt.	Sanskrit
Mil.	Milyan	TochA.	Tocharian A
MLG	Middle Low German	TochB.	Tocharian B
ModSwe.	Modern Swedish	Ved.	Vedic Sanskrit

Literature

ACLT	Yakubovich, I. *Annotated Corpus of Luwian Texts*. URL: Mhttp://web-corpora.net/LuwianCorpus/
AHP	Melchert, H. C. (1994). *Anatolian Historical Phonology*.
CHD	Hoffner, H., et. al. *Chicago Hittite Dictionary*.
CHLI	Hawkins, J. D. (2000). *Corpus of Hieroglyphic Luwian Inscriptions: Inscriptions of the Iron Age*.
CLL	Melchert, H. C. (1993). *Cuneiform Luvian Lexicon*.
DLL	Melchert, H. C. (2004). *A Dictionary of the Lycian Language*.
EDG	Beekes, R. (2010). *Etymological Dictionary of Greek*.
EDHIL	Kloekhorst, A. (2008). *Etymological Dictionary of the Hittite Inherited Lexicon*.
GdL	Neumann, G. & Tischler, J. (2007). *Glossar des Lykischen*.
HED	Puhvel, J. *Hittite Etymological Dictionary*.
HEG	Neumann, G. & Tischler, J. *Hethitisches Etymologisches Glossar*.
HW	Friedrich, J., et al. *Hethitisches Wörterbuch*.
LIV	Rix, H., et al. (2001). *Lexikon der Indogermanischen Verben*.
LW	Gusmani, R. (1964). *Lydisches Wörterbuch*.
N	Neumann, G. (1979). *Neufunde lykischer Inschriften seit 1901*.
TL	Kalinka, E. (1901). *Tituli Lyciae. Lingua Lycia Conscripti*.

Glossing

A	Active voice	GEN	Genitive case
ACC	Accusative case	IND	Indicative mood
AOR	Aorist	INF	Infinitive
C	Common gender	INSTR/ABL	Instrumental/ablative case
CONJ	Conjunction		
DAT/LOC	Dative/locative case	IPV	Imperative mood
GENADJ	Genitival adjective	M	Mediopassive voice

N	Neuter gender	PRET	Preterite tense
NOM	Nominative case	PREV	Preverb
PERF	Perfect tense	PTC	Participle
PL	Plural number	PTCL	Particle
POSSPRON	Possessive pronoun	RELPRON	Relative pronoun
PRES	Present tense	SG	Singular number

Symbols

< >	Develops into
« »	Analogically develops into
⟨x⟩	Directly transliterated
*	Reconstructed form
**	Incorrectly reconstructed form
=	Clisis
-	Morpheme boundary
[x]	Broken off text
≈	Cognacy

1 Introduction

The Lycian language (Lyc. *Trm̃mili*) is a Luwic language belonging to the Anatolian branch of the Indo-European language family. It is attested roughly from the late 5th to the early 3rd century in the coastal region of Lycia in southern modern day Turkey. The bulk of attested Lycian is recorded on stone, mostly in the form of sepulchral inscriptions spread throughout the region, of which there are around 150. Consequently, the majority of textual material consists of various epitaphs. However, there are notable exceptions, e.g. the poorly understood Xanthos Stele (TL44), recording the history of a local dynasty, and the Létôon Trilingual (N320), concerning the establishment of a cult.[1]

Some Lycian text has been found in the form of grafitti and inscriptions on ceramics and metalware.[2] There is also a sizeable amount of Lycian abbreviated names found on legends of coins minted in the region.

As stated above, Lycian is an Anatolian language of the Luwic subbranch. As such, it originates from the same ancestor language (Proto-Anatolian, PA) as the much more richly attested Hittite. The classification of Lycian as Anatolian is completely consensual since Pedersen's treatment in 1945, and an even closer affinity to the Luwian languages[3] is established since Tritsch's treatment of 1950. Given the significant and non-trivial shared innovations and features of Luwian and Lycian,[4] it is certainly appropriate to speak of a Luwic subbranch as separate from e.g. Hittite. This in turn implies the prehistoric existence of a further common ancestor language, termed Proto-Luwic (PL).[5] However, the closest relative of Lycian remains the much more scantily attested Milyan (or Lycian B), which together with Lycian forms another node below Proto-Luwic.[6] The shared ancestor of Lycian and Milyan may be termed Proto-Lycian.

The relationship of Lydian to Luwic is still subject to debate, but it is generally as-

[1] The content of the latter is much better understood than that of the former on account of the Lycian text being more or less corresponded by adjacent Aramaic and Greek inscriptions.

[2] Notably a dedication on a ceramic bowl (N323), which contains one of the rather few instances of the 1SG.PRES.A ending *-u*: *ddawu* 'I dedicate' (see section 5.3.1).

[3] The Luwian languages consist of the two Luwian dialects Cuneiform and Hieroglyphic Luwian as separated linguistically (Melchert, 2003b, pp. 171f). The differences are however not too great to also speak of a singular 'Luwian language'

[4] Notable examples include: "Čop's law" (i.e. PA *-*éC*$^{[lenis]}$*V*- > PL *-*éC*$^{[fortis]}$*V*-), the *i*-mutation nominal inflection, the widespread use of genitival adjectives, the *i/Vi*-ablauting verbal class (see section 4.1.1). Cf. Oettinger 1979a, p. 75; Melchert 2003a, p. 269.

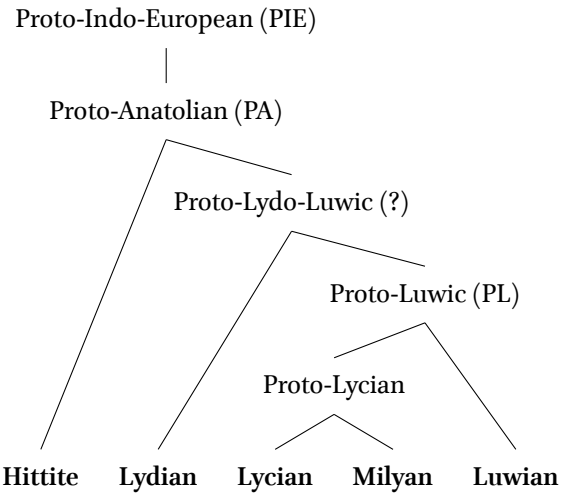
[5] As justly recommended by Melchert (2003b, p. 177), the term "Luwic" is used here instead of the common practice (at least in older literature) to call the whole subbranch "Luwian".

[6] Milyan is only recorded in two inscriptions, TL44 and TL55, and is badly understood. Some key phonological developments distinguish it from Lycian, e.g. the retention of the PL */S/ as /s/ (cf. Mil. *masa* vs. Lyc. *maha*(*n*)- 'god'.

signed as closer to Luwic than to Hittite.[7]

See figure 1 for a minimalist tree-model of the Anatolian language family.[8]

Figure 1: The Anatolian language family



In this thesis, the Lycian finite verb will be subject to investigation. Note that Lycian in this case only denotes Lycian A, and not Milyan (sometimes termed Lycian B). In the following section the research goals will be outlined, along with other preliminaries. In section 3, the Lycian finite verb endings are treated in their entirety. A classification of the various Lycian verbal stems is found in section 4. This classification is the result of an analysis of all attested verbal material, which is found arranged verb-by-verb in sections 5 through 9. Section 10 hosts some brief concluding remarks.

2 Preliminaries

2.1 Purpose and goals

The primary purpose of the present thesis is to formally describe Lycian finite verb formation. Any finite verb in Lycian can be segmented into two main morphological de-

[7] Potential arguments for a "Proto-Lydo-Luwic" group include "Luwic raising" (PA *-*i̯e*- > *-*i̯i*-) and *i*-mutation. However, definitely *non liquet*. See Melchert 2003a, p. 266 and Skydsbjerg Friis 2016 for references and discussion.

[8] The minor Anatolian languages Carian, Pisidian, Palaic, and Sidetic are not included, partly because they are difficult to trace thanks to their relatively poor attestation, partly because they will be less relevant in the present thesis.

scriptive components: *stem* and *ending*. These two aspects therefore constitute the main objects of study and the basis of classification. It is intended for the following analysis to be comprehensive, i.e. all available Lycian material will be taken into consideration. As such, every verb form of the language is included in the individual verb entries, given in sections 5 through 9 with corresponding places of attestation.

Secondly, the present work is etymological. Accordingly, each described unit of the language will be coupled with a diachronic account wherever possible. This goes for both the individual verbal lexemes and the more general stem *types* (section 4). Endings are likewise not exempt (sections 3.3.1 through 3.3.17).

According to the purpose stated above, the following research goals are set:

1. Provide a comprehensive formal description of the finite verb in Lycian.

2. Provide an etymological explanation for the described phenomena to the maximum possible extent.

With these research goals, it is hoped that the understanding of the position of Lycian within an Anatolian—and by extension an Indo-European—context will be improved. Note that the present work does not extend beyond the boundaries of *finite* verb formation, which is why for instance the infinitive and participle are left without thorough treatment.

2.2 Notational practices

Since there is no apparent current consensus for how to notate all Proto-Luwic phonemes, the following system has been devised. The reflex of the Luwic merger of PA */e/ and */o/ is notated as **ə* (e.g. PL **əbə́s* 'that' < PA **ʔobós*). For the PL reflex of the PA assibilation of the sequence **-t̂i-*, reflected as /z/ (or /t^s/) in both Luwian and Lycian, **z* is used (e.g. PL **zəHa-* 'to fight' < (virtual) PIE **tioh$_2$-éh$_2$-*).[9] This phoneme is kept distinct from PL **c*, which denotes the reflex of PIE */ḱ/, reflected as /z/ in Luwian[10] and /s/ in Lycian.

For PL and PA, the fortis/lenis distinction is kept with upper and lower case letters respectively for fricatives and resonants. I.e. */H/ is fortis, */h/ is lenis.

Since the notion of *stem type* is of considerable importance in the present thesis, an adapted system of notation styles is employed. The mechanisms governing stem type notation are given below.

[9] The symbol *z* is chosen because it is the one commonly used in transliteration of both Luwian and Lycian. No consideration is taken to the likely phonetic rendering of the phoneme, by which *t^s* would perhaps be preferable.

[10] Implying a Luwian merger of PL */z/ and */c/.

For PA and PIE stem types, a template system is used. As such, *C* is employed as a cover symbol for radical consonant(s). Hyphens are used to separate the root from potential suffixes. When there is ablaut alternation between full grade and zero grade, parentheses enclose the ablauting vowel. E.g. a *mi*-conjugating root formation: **C*(*é*)*C*-. Conversely, if the ablaut is thematic (apophony between an *e*-grade and an *o*-grade), a slash between the two vowels is used. E.g. *ié/ó*-stems.

For Lycian stem types, a different system is used. For every Lycian verb lemma, the regular 3SG.PRES.A ending of the corresponding verb type is given in superscript, provided that the verb is classifiable with regards to ending allomorphy (see section 4). The stem formant is implicit in the final segment(s) of the lemma. If a segment is not present in all forms of the verb, or not directly determinable, that segment is enclosed in parentheses.

When glossing, the text is first given as it is directly legible from the inscription. In the morphological segmentation, initial particle chains are broken up into their constituent parts. E.g. ⟨sede⟩ is presented as *se=ede* (instead of *s=ede*), CONJ=NOM/ACC.SG/PL.N.

3 The finite verbal endings

In this section, the attested Lycian finite verbal endings are listed and discussed. A synchronic and diachronic discussion is attached to each ending (sections 3.3.1 through to 3.3.17). Other miscellaneous phenomena are discussed in separate sections before the endings (sections 3.1 and 3.2).

All known Lycian finite verbal endings are listed in table 1.

Table 1: The Lycian finite verbal endings

	PRES.A	**PRET.A**	**IPV.A**	**PRES.M**	**PRET.M**	**IPV.M**
1SG	*-u*	*-(x)xa, -ga* *-xã*		*-xani*	*-xagã*	
2SG						
3SG	*-(t)ti, -di, -e, -i*	*-(t)te, -de* *-tẽ, -dẽ*	*-(t)tu, -du, -u*	*-ẽni*	(*-tte*)	(*-tẽnu*)
1PL						
2PL	(*-tẽni*)		(*-tẽnu*)			
3PL	*-˜ti, -ñti* *-(i)ti*	*-˜te, -ñte* *-˜tẽ, -ñtẽ* *-(i)te, -(i)tẽ*	*-˜tu*	*-˜tẽni*		(*-˜tẽnu*)

The endings that stand between parentheses are judged as uncertain with regards to their existence. Note that many slots are empty, meaning that we have no forms attested with these endings. For example, there are no secured 2SG or 1PL endings attested whatsoever.[11] This is indubitably due to the small size of the Lycian corpus.

Note that the imperative seemingly alternates with the present and the preterite in the glossing of the top row of the x-axis. This is not strictly speaking correct notation, since the imperative belongs to the category of *mood* (contrasting with the *indicative*), whereas the present and preterite are mutually exclusive in the category of *tense*. However, since there is no tense distinction in the imperative, notating indicative mood for the present and the preterite (e.g. 3SG.PRES.IND.A) and tense for the imperative mood is superfluous.

3.1 Lenited vs. unlenited endings

As is immediately apparent from table 1, some endings display allomorphy with regards to their initial consonant. E.g. *-ti* vs. *-di* and *-xa* vs. *-ga* respectively. This opposition is one between *lenited* (*-di*, *-ga*) and *unlenited* (*-ti*, *-xa*) endings.

The phenomenon of verbal ending lenition allomorphy was first properly treated in a seminal article by Morpurgo-Davies (1982/83). She noticed systematic similarities in the spelling of endings between Cuneiform Luwian, Hieroglyphic Luwian, and Lycian, where CLuw. *-tti* corresponds to Lyc. *-ti* while CLuw. *-ti* and HLuw. *-ri* (occasionally *-ti*) correspond to Lyc. *-di* respectively. Given the striking equivalence, this allomorphy was determined as "Common Luwian" (i.e. Proto-Luwic).

This phenomenon must be understood within a larger system of Luwic consonant gradation. The phonological processes which yielded the lenited vs. unlenited endings are summarised in Kloekhorst 2006c, p. 133. In the case of the verbal endings, we are dealing only with processes of lenition, the original forms being fortis (corresponding to the PIE tenues, e.g. PA **-ti* < PIE **-ti*). Accordingly, the two main processes which yield lenited consonants from unlenited ones are the following:

- V́TV > V́DV[12] (e.g. Lyc. *tadi* 'he puts' < PL **tā́di*[13] < PA **dǽdi*[14] < PIE **dʰéh₁ti*)

[11] Carruba (1968, p. 21) postulated *-ẽ/ãni* as a 1PL.PRES ending, but this analysis is no longer current. The forms in question are now analysed either as infinitives (e.g. *zasãni*) or as 3SG.PRES.M (e.g. *sijẽni*).

[12] In Kloekhorst 2006c, p. 133 fortis cover symbol T is given as CC and lenis D as C respectively. This because the model presupposes that the original phonological distinction between fortis and lenis was one of length.

[13] Initial lenis consonants are regularly reflected as fortis in Luwic.

[14] The Proto-Anatolian phoneme */æ/ is the outcome of PIE tautosyllabic **-eh₁-*, and must be postulated due to the reflex in Hittite as /ē/ vs. in Luwic as */ā/ (Melchert, 1994, p. 56). Depending on whether one, as Melchert does, agrees with the sound law PIE */ē/ > PL */ī/ (Oettinger, 1979b, p. 535f), /æ/ may be seen as equivalent with PA */ē/. In case one rejects this law and instead postulates PIE */ē/ > PL */ā/, there is no

- VTV > VDV (e.g. INSTR/ABL ending Lyc. *-edi* < PL **-ədi* < PA **′-oti*)

It should be noted that the particular lention rules given above are not exlusive to Luwic, but are to be viewed as Proto-Anatolian processes. As such, Hittite shares outcomes of both developments. The laws governing the lenition of inherited fortis stops were first described by Eichner (1973, pp. 79f & p. 100), and are therefore commonly referred to as Eichner's first (after long accented vowel) and second (between unaccented vowels) lenition rules. However, note that Hittite does not share the widespread allomorphy between lenited and unlenited endings (e.g. the 3SG.PRES.A of the *mi*-conjugation is always *-zi* and never ***-ti* < PA **-di*). The 3PL endings display no lenition-related allomorphy since they begin with a nasal, the sequence **-RC-* never being subject to the processes described above. The 3SG.PRES.M ending *-ẽni* has no allomorphy of this kind since there is no consonant to lenite.

Not all endings beginning in a plosive have lenited variants attested for them (e.g. *-xani* but never **-gani* for the 1SG.PRES.M). This is almost certainly to be attributed to their scarce attestation. There is little reason to reject the notion of a 1SG.PRES.M ending allomorph *-gani* in the Lycian language as a whole. Yet, it should be noted that some of the attestations of unlenited endings for conjugations which have only one attested allomorph contradict what we would expect. For example, 1SG.PRET.M *axagã* to the verb *a*(*i*)-^{di} 'to make' which is otherwise leniting (see section 6.1.1) and 1SG.PRES.M *sixani* to the verb *si-* 'to lie', which must go back to a form like virtual PIE **ḱéi-h_2e-ni*, by which lenition of the ending is expected on account of the preceding accented diphthong (see section 5.3.7). However, these forms are not conclusively probative to postulating the hypothetical existence of Lycian endings in **-gaga* and **-gani* because of the synchronic productivity of the unlenited endings demonstrated below.

It can be observed in Lycian that the unlenited endings have begun to become the productive allomorph. In some verbs, it seems that the unlenited endings are in the process of ousting the original lenited ones. For example, we find *agã* (TL149,13) as well as *axã* (TL44c,18) as 1SG.PRET.A forms of *a*(*i*)-^{di} 'to make'. Furthermore, there are clues that the unlenited forms are younger and thus intrusive. For the verb (*t*)*ta*-^{di}, which is overwhelmingly leniting (as expected etymologically, see section 4.2.2), we find both 3SG.PRET.A forms *tadẽ* (common) and *tetẽ* (TL38,7).[15] Note that the unlenited form dis-

need for a phonemic opposition between PA **/ē/* and **/æ/*. For an in depth (and convincing) critique of PIE **/ē/* > PL **/ī/*, see Hajnal 1995, pp. 61-65. In either case, this thesis will use the notation **/æ/* for the PA phoneme, since this is most transparent and probably closer to the real phonetic realisation (open front vowel).

[15] In e.g. DLL, p. 60, *tetẽ* is analysed as a plural form. There are to my mind no indications in the text which would favour such an analysis over the one given here. Conversely, the implicit subject of *tetẽ* is *Ijetruxle Hurttuweteh wasaza* 'Ijetruxle, son of Hurttuwete, the *wasaza*', a clearly singular noun phrase.

plays *e*-umlaut, a process which is ongoing in Lycian.[16] As such, the form could be dated as later, and with it the spread of the unlenited endings. In fact, there is compelling independent evidence that TL38 is a late text. Firstly, the text contains the *a*-stem ACC.SG.C ending *-u* instead of *-ã*, which Jenninges & Swigges (2000, p. 113) have shown is symptomatic of late inscriptions. Furthermore, the symbol used for ⟨ẽ⟩ in TL38 has been repeatedly shown to be a newer variant (cf. Laroche 1979, p. 55; Bryce 1986, pp. 59f): the letter ⟨ 𐊇 ⟩ only appears in inscriptions from around 350BCE onwards.[17]

The fact that the unlenited endings are observably productive has important consequences for our interpretation of the data and description of the language. Firstly, verbs which display at least one case of a lenited ending are to be viewed as confirmed to be originally leniting, since no spread of lenited endings is observable elsewhere. Moreover, scarcely attested verbs with exclusively unlenited endings are less probative with regards to whether or not they were originally leniting or unleniting, since we have to reckon with the possibility that forms with lenited endings could have existed at some point.[18] This holds true for demonstrably late texts in particular. The productivity of unlenited endings is also the reason why the scarcely attested middle forms with unattested lenited allomorphs given above (e.g. *sixani*) do not possess the probative power to deny the existence of lenited allomorphs for these endings (i.e. 1SG.PRES.M and 1SG.PRET.M).

3.2 Nasalised preterites

Lycian preterite endings as given in table 1 have variants with an extra element of nasalisation in the auslaut. These are commonly referred to as *nasalised preterites* and are a defining feature of the language.

A comprehensive history of the research on and proposed solutions to the distribution of the nasalised preterites may be found in Garrett 1991, pp. 15-17. In the same article, an account superseding all those given prior is proposed. Garrett recalls the work of Imbert (1896), who postulated the maxim given in (1).

(1) **Imbert's law:**
If a finite preterite verb precedes the subject, the verb appears with a nasalized final vowel.

[16] Cf. Melchert 1992b; Rasmussen 1992.

[17] Note that, given the limited material, it is impossible to *rule out* that we are dealing with sociolectal, dialectal, or some other form of ideolectal variation. However, judging from the information presented, it should be evident that chronology is the most likely deciding factor.

[18] Cf. e.g. the case of (*p*)*puwe-*^{ti} 'to write', for which lack of lenition is proposed to be secondary in section 7.3.4.

Imbert's law is strikingly valid numerically for the Lycian corpus. This follows naturally from the fact that the law was based on one of the most common Lycian formulae: a left dislocated direct object followed by a clause beginning in the clause initial particle, exemplified in (2).[19]

(2) **TL67,1**
⟨ẹbẽñnẽ : prñnawã : mẽtiprñnawatẽ : xluwãnimi [...]⟩

ebẽñn-ẽ *prñnaw-ã* *me=ẽ=ti* *prñnawa-tẽ*
of.this-ACC.SG.C building-ACC.SG.C PTCL=3SG.ACC.C=PTCL build-3SG.PRET.A
xluwãnim-i
PN-NOM.SG.C

'The building belonging to this, Xluwãnimi built it'

However, there are several cases where Imbert's law is contradicted. Furthermore, the relative position of the verb and the subject cannot be the underlying motivation for nasalisation, since there are cases of nasalised preterites in clauses with no overt subject. For this reason, Garrett devised a new mechanism governing nasalisation which is compatible with the cases that motivated the postulation of Imbert's law:

(3) **Garrett's law**
A finite preterite verb is nasalised if its direct object is non-lexical.

A non-lexical object is in the case of (3) defined as one which is either null or clitic. As such, Garrett's law is compatible with cases such as (2), since the object of *prñnawatẽ* is a clitic (*=ẽ*), *ebẽñnẽ prñnawã* 'the building belonging to this' being dislocated outside of the main clause. Garrett's scenario for the origin of nasalised preterites postulates an origin of the nasal element as an original 3SG.ACC.C enclitic pronoun (Melchert *apud* Garrett 1991, p. 17). This pronoun is to be reconstructed as PA **-om* (cf. Hitt. *-an*), and the nasalised preterites are consequently to be analysed as a univerbation of pre-Lycian VERB-*e* + *-ẽ*. Note that this must indeed be a case of univerbation, since nasalised preterites occur in conjunction with neuter clitics (Adiego, 2015, p. 12), which clashes with the original function of the nasalised element as a common gender pronoun.

Although Garrett's solution explains many cases of nasalised preterites, there exist a sizable chunk of examples which do not concord, which he attempts to explain away with mixed results.[20] For this reason, Goldstein (2014) suggested that the deciding fac-

[19] Analysis of *ebẽñnẽ* with Kloekhorst (2009, pp. 132ff).

[20] For example, Garrett finds no solution for the occurance of the clearly nasalised preterite *pijetẽ* 'he gave' with the clearly overt direct object *hrzzi ñtatã* 'upper burial chamber' in TL36,5-6. The inscription reads *se pijetẽ hrzzi ñtatã ladi ehbi* 'and they gave the upper burial chamber to his wife'.

tor is not one related to syntax, but to certain semantic properties of the direct object. Specifically, the property of the NP that Goldstein postulates as governing nasalisation is *uniqueness*. Uniqueness is per Goldstein defined in the literature as a property a NP has when there is only one entity that satisfies its description. To illustrate, this property has been argued to be essential to the semantics of the English definite determiner *the* (ibid., p. 104). Goldstein bases his conclusion on the observation that nasalised preterites seem to cooccur with direct object NPs which are usually considered as prototypical for uniqueness (e.g. proper nouns, definite NPs, etc.) and conversely not with non-unique NPs (indefinite NPs, demonstrative descriptions). He calls this phenomenon Lycian *object agreement*, which may be formulated as in (4).

(4) **Goldstein's law**
A finite preterite verb is nasalised if its direct object NP has the semantic property *uniqueness*.

However, there are issues also with Goldstein's law. One major problem is the interpretation of Lyc. *ebẽñnẽ*. This is according to Goldstein a demonstrative pronoun (following older consensus), and as such he assigns it to contexts which do not trigger object agreement (i.e. nasalisation, ibid., p. 111).[21] However, as demonstrated by Kloekhorst (2009, pp. 132-137), Lyc. *ebẽñnẽ* is not a pronoun, but originates in a form ending in the appurtenance suffix *-ñne/i-* (cf. CLuw. *-wann(i)-*).[22] Under this analysis, the proper translation of Lyc. *ebẽñnẽ* is not 'this', but rather 'pertaining/belonging to this (vel sim.)'. As such, cases of nouns determined by *ebẽñnẽ* are in fact not cases of demonstrative descriptions, but of *definite descriptions* (as described in Goldstein 2014, p. 106), which are by Goldstein identified as triggering nasalisation.[23]

Beyond the criticism above, Goldstein's rather convoluted solution is descriptively weak, since it invokes semantic conditioning in a language for which we are often unsure of the precise meanings of words and structure of clauses. In addition to this, it remains unclear how the synchronic distribution predicted by (4) is to be explained diachronically. However, Goldstein is likely to be right in claiming that verb-initial syntax appears to have played a significant role in the genesis of Lycian nasalised preterites (ibid., p. 121).

[21] Demonstrative descriptions are inferred on the basis of extralinguistic information, and are as such not expressions of uniqueness (Goldstein, 2014, p. 111).

[22] The *e*-stem inflection is analogical from pronominal forms (Kloekhorst, 2009, pp. 136f) There are also attestations of *ebẽñni* (e.g. on N314a).

[23] Direct objects such as *ebẽñnẽ prñnawã* 'the house pertaining to this' have the same semantic properties with regards to uniqueness as *hrzzi ñtatã* 'upper burial chamber', given by Goldstein as a definite NP (2014, p. 106). Both are completely unambiguous with regards to which entity they refer, their interpretation is based on linguistic information (as opposed to demonstrative descriptions, cf. footnote 21), and the description can only be satisfied by one unique entity.

Contra Garrett and Goldstein, Adiego (2015) dislodges the conditioning of nasalisation in Lycian preterites from the direct object. Rather, Adiego's solution concerns the position of the verb in the clause. There are two sentential positions that Adiego observes as conditioning for the appearance of nasalisation:

(5) **Adiego's law I**
A finite preterite verb is nasalised if it immediately follows *se* or *me*, regardless of whether or not these are followed by enclitics and/or preverbs.

(6) **Adiego's law II**
A finite preterite verb is nasalised if it occurs in absolute initial position of a sentence.

Both laws build on the previous suggestions outlined in this section. Imbert's observation with regards to a fronted verb being nasalised and Garrett's proposed origin in enclisis are followed. Likewise, Goldstein's suggestion of verb initial syntax as important in the rise of nasalised preterites plays a significant role. Strikingly, Adiego's two predictions (5) and (6) bear out almost without exception in the Lycian corpus. As opposed to Goldstein's semantics-based distribution in (4), Adiego's distribution is based on directly observable syntactic patterns. For these reasons, it is superior to all previous accounts and should be considered correct. However, while Adiego's account is faultless as a *description* of the distribution of nasalised preterites, it can be further refined from an *explanatory* perspective.

Adiego's diachronic account of the rise of nasalised preterites is split into three phases. In phase one, enclitic pronouns (critically including *-ẽ*) are attached to the verb in verb fronting constructions (as expected from Wackernagel's law known from the syntax of many other ancient Indo-European languages). The addition of *-ẽ* to the verb would be licensed by a lack of overt direct object. In phase two, DO-marking becomes obligatory (giving rise to the phenomenon of *clitic doubling* described in Garrett 1991, pp. 17f; 1992, pp. 200f) and the enclitic pronoun *-ẽ* is generalised in verb-fronting constructions (licensing usage in clauses with neuter direct object NPs, despite originally being an exclusively common gender pronoun). The third phase postulates a retention of DO-marking on the verb after sentence-initial particles (i.e. *se, me*) even if these are followed by further DO-marking.

While phase one and two are plausible and necessary to explain the observable facts, the third phase raises some concerns. It is unclear which mechanism governs the retention of DO-marking. By this point the salience of the nasalised preterite ending as consisting of two elements (ending + pronoun) must have been lost, since we would otherwise have redundant *triple* (!) marking of the direct object. But if this is the case there is no clear linguistic factor which would motivate the retention of nasalisation

when it is not present elsewhere.

It will be arguead here that the motivating factor for the retention of nasalisation in Adiego's third phase is the accentuation of the verb. Given that the finite verb in verb-fronting constructions is topicalised (verb initial word order not being the standard in Lycian), we may with some security assume that it was also accentuated (as opposed to e.g. finite verbs in clause final position in Vedic). Thus, if the nasalisation is not salient as a pronominal element when nasalised pretererites spread, the nasalisation is instead easily analysable synchronically by the speakers of Lycian as occuring only when the verb is the *first stressed constituent of the clause*. When sentence-initial particles are added in front of the verb, the correlation for the speakers between verbs in this context and verbs in absolute initial position is that the verb is still the first stressed constituent. This matching of form to a syntactic position would thus constitute the *explanation* for the observable distribution of nasalised preterites as requested above. Naturally, this account presupposes that both sentence-initial article chains and preverbs (cf. (5)) are *unstressed*. In fact, there seem to exist good reasons to assume so.

Firstly, texts that employ *word dividers* ⟨:⟩ very often do not delimit sentence-initial particle chains from the following word. There are exceptions to this rule, but it is undeniable that the norm is to not separate the chain by means of a word divider.[24] For the conjunction *se*, the norm is even more transparent: less than 20 cases of *se* being delimited with word dividers as opposed to over 550 cases of *se* being included with another word between word dividers. Granted, the exact function(s) of Lycian word dividers is not entirely clear. However, it is evident that the Lycian scribes more often than not did not view sentence-initial particle chains and *se* as independent constituents, but rather as parts of larger speech units. Lack of accent (and consequent clisis) would be a plausible way to explain the tendency.

Secondly, we can observe considerable phonetic reduction occuring in sentence-initial particle chains and in preverbs. For example in the case of the chains, the NOM/ACC.SG/PL.N enclitic pronoun =*ede* loses its vowels in contact with other vowels. For preverbs, it is illustrative that the preverb *epñ* 'after' (cf. Hitt. *āppan*) very often occurs with an elided vowel in the form *-pñ* (Melchert, 2004, p. 15). These phenomena are symptomatic of a lack of accent.

[24] As a small pilot, I have been able to locate the following cases of a sentence-initial chain being separated from the following verb with a word divider: TL,9,1; TL14,1*; TL17,1; TL31; TL57,3; TL61,1; TL66,1; TL68,1; TL72; TL73; TL78,1; TL84,1.2.3.5 (there is considerable inconsistency in this inscription); TL94,1*; TL101,1; TL103,1; TL105,1; TL110,1; TL112,1.4*; TL118,14; TL119,1; TL120,1; TL 122; TL123,1 (also word dividers for *se*); TL128,2; N310,1*; N316,1; N317,1*; N322,1; 327,1; N335,1. In all inscriptions marked with * the chain is connected to the previous word and thus not a proper counterexample. About half of the cases are from Limyra, which may be relevant. This relatively small number of exceptions to particle chains not being delimited by word dividers must be compared to well over 100 cases of them being so.

Parallels in Anatolian may also serve to reinforce our hypothesis. It has been convincingly argued by Kloekhorst (2011, pp. 160f & p. 165) that Hittite sentence-initial particle chains (except with =*ma*) are unaccentuated.[25]

In the case of preverbs, there is comparative precedent for their lack of stress. Durnford (1971) has shown that preverbs count as unaccentuated in Hittite metric texts. Likewise, Lydian metre as scanned by Eichner (1986) shows that preverbs are consistently unaccentuated.[26] Outside of Anatolian, Vedic preverbs (for instance) are always unstressed unless they stand in absolute clause initial position.

Concludingly, there are several facts which point to Lycian sentence-initial particle chains, the conjunction *se*, and preverbs being unaccentuated.[27] As such, we may formulate a unified synchronic law governing the distribution Lycian nasalised preterites as in (7).

(7) **Adiego's law revised**
A finite preterite verb is nasalised if it stands as the first accented constituent of a clause.

The formulation in (7) is preferable to (5) and (6) in that is unified and reduces *two* descriptions into one single explanation. Furthermore, it postulates an overtly linguistic feature as the underlying motivation for nasalisation, beyond the syntactic *description* given by Adiego.

Note that the rule given (7) gives us a tool to verify whether or not an uncertain reading of a given form as a verb is correct or not. See specifically the case of *hijãna-*^{ti} in section 6.3.3.

As noted by Garrett (1991, p. 15), we must in all likelyhood assume that nasalisation was not originally restricted to the preterites, but occurred in forms ending in high vowels (i.e. present tense forms) as well. Given that Lycian does not write nasalised high vowels, their absence is expected (cf. discussion in the end of section 3.3.5). As such, Pre-Lycian should have contained for example 3SG.PRES.A forms ending in **-tĩ*. It should be noted, however, that the expected outcome of PA **-i-om* is Lyc. *-ijẽ* (e.g. NOM/ACC.PL.N of adjectives in *-ije*, cf. *kumezijẽ* 'sacred' on N320,7). Thus, the absence of this shape must be attributed to some irregular process. One possibility is the generalisation of nasalisation at the point when it loses its salience as a pronominal element in the preterite

[25] Conversely, Sideltsev (2018) argues that Hittite sentence connectives *nu*, *su*, and *ta* are unstressed when not followed by any enclitics. Provided that Sideltsev is correct, the stress with encliticised sentence-initial particles in Hittite must represent either an archaism or an innovation of Hittite with respects to Lycian.

[26] E.g. *fẽtwintat* (LW12,4), to be segmented *f=ẽt=wintat* (Lyd. *ẽt* ≈ Hitt. *anda* 'in(to)'), and accentuated as *fẽtwintát* (Eichner, 1986, pp. 19f).

[27] It should be noted that *absolute* decisiveness is not possible in this matter for the moment, and that bolder claims will have to wait for either more research or more material.

forms. Otherwise, we may hazard to postulate irregular vowel reduction by merit of being an enclitic element or reconsider our reconstruction of the nasalising element.

3.3 Individual treatment of the endings

In this section all the endings in table 1 are discussed.

3.3.1 1SG.PRES.A *-u*

The 1SG.PRES.A ending *-u* is quite scarcely attested in the Lycian corpus. We have only two or three verbs for which we have confirmed 1SG.PRES.A forms.[28] It is nevertheless highly substantiated as a de facto 1SG.PRES.A ending in TL128,2, where the preceding clause has the subject *amu* 'I' (GdL, p. 234).

The phonological shape of the ending immediately invites analysis to Luw. *-wi* and Lyd. *-u* of identical grammatical function.[29] The question then becomes what ending we are to reconstruct for Proto(-Lydo)-Luwic. Reconstructing PL **-wi* works in Luwian and Lydian, where Luwian retains the ending as it is and Lydian loses the **-i* by apocope as expected by sound law (Melchert, 1994, p. 379). However, no such apocope is known for Lycian as to enable PL **-wi* > Lyc. *-u*. Furthermore, there are no independent grounds on which to postulate one. Strikingly, all other present verbal endings retain their final *-i*.[30]

The other option would be to reconstruct PL **-u*, taking the Lycian form as archaic. As such we would have to explain the Luwian and Pre-Lydian form, effectively finding a source for the auslauting *-i* in both languages. Analogy on the basis of *all* the other PRES.A endings is the obvious solution to this end. It must be noted, however, that this analogy must have occurred independently in Lydian and Luwian unless one wants to propose a closer affinity between these to languages as separated from Lycian.[31] It would seem that the paradigmatic levelling of auslauting *-i* in the PRES.A endings is a trivial

[28] The number of verbs conjugated in the 1SG.PRES depends on the reading of ⟨na[?]au⟩ in TL128,2 and TL135,2. See sections 6.3.6 and 6.6.3 for detailed discussion.

[29] A genetic connection between the Luwian and Lydian form of the ending was suggested already by Oettinger (1979a, p. 84). Interestingly, the Lycian 1SG.PRES.A ending was not known by the time of Tritsch's famous comparison of the verbal endings (1950, p. 506), and is therefore not included there.

[30] Even if one were to postulate a specific sound law by which PL **-ui#* > Lyc. *-u*, one runs into issues with some DAT/LOC forms, e.g. Lyc. *xruwi* 'offering stand(?)', which would then have to be explained by analogy or appeals to accent (vel sim.).

[31] The Lydian levelling must also be assumed to occur prior to general apocope. Otherwise Pre-Lydian **-u* would have disappeared without a trace, disallowing the formation of a necessary preform with the shape *-wV*. Alternatively, Kloekhorst (pers comm.) suggests that original length (i.e. **-ū#*) may have enabled the ending to be exempt from Lydian apocope.

enough development to justify such a solution.[32] Crucially, the opposing possibility (reconstructing PL *-*wi*) is riddled with far more troubling issues. For these reasons, *-*u* is the best reconstruction of the Proto(-Lydo)-Luwic 1SG.PRES.A ending in a strictly bottom-up approach.

Kronasser (1956, p. 169) suggests that the Luwian form -*wi* and Lydian -*u* are new forms based on the */u/ of the 1PL ending (Hitt. -*weni*, CLuw. -*unni*). The mechanisms of such a process are obscure, however; by what type of analogy is the */u/ inserted? Moreover, we would rather expect the 1SG to influence the 1PL and not vice versa.

Kammenhuber (1969, p. 318) postulates a dissimilatory process by which the original ending *-*mi* became */u/ in contact with */m/ in verbs with this segment in the end of the verbal stem. This proposal is highly expensive in terms of analogy (irregular sound change and subsequent generalisation of the resulting allomorph) and does not account for Lyc. -*u*. It should thus only be taken as a serious possibility when all other options have been exhausted.

Having rejected the proposals of Kronasser and Kammenhuber, the question arises what we are then to do etymologically with PL *-*u*. One candidate is PIE *-*ō* (< **oH*), i.e. the thematic variant of the 1SG.PRES.IND.A ending known abundantly from Indo-European languages other than Anatolian (e.g. Gk. -ω, Lat. -*ō*). In this case, we must postulate a sound law by which PIE *-*ō*# is reflected as *-*u* in PL. Such a sound law is to my knowledge not contradicted by any evidence, but can likewise not be independently ascertained. Note however the parallel development in Tocharian B, where PIE *-*ō*# is reflected as -*u*, notably also in the 1SG ending -*u* (Ringe, 1996, pp. 89f).[33]

Irrespective of whether or not the Indo-European etymology given above is correct, it is certain that PL *-*u* offers no possible equivalent in Hittite. Conversely, the Hittite 1SG.PRES.A endings -*mi* and -*hi* find no comparanda in either Luwian, Lydian, or Lycian. As such, generalisation of -*u*[34] at the expense of *-*mi* and *-*hi* forms a clear isogloss between these languages and Hittite.[35]

3.3.2 3SG.PRES.A -(*t*)*ti*, -*di*, -*i*

The 3SG.PRES.A is an abundantly attested and transparent form of the verb in Lycian. Thus, the validity of -*ti*/-*di* as a de facto 3SG.PRES.A ending need not be discussed further.

[32] The addition of -*i* in the present is arguably a Luwian tendency. Cf. the etymology of the 3SG.PRES.A ending of the *hi*-conjugation, section 3.3.3.

[33] Conversely, see Jasanoff 2018, pp. 73f for a critique of this development.

[34] No other 1SG.PRES.A ending than one originating in PL *-*u* ending is known in the Luwic languages.

[35] Cf. Melchert 2003a, p. 269, who admits the isogloss but rejects a Luwic subgroup.

Occasionally, the 3SG.PRES.A endings is written with a geminate consonant (i.e. *-tti*). Note that this never occurs with the lenited allomorph[36] and is only attested when the ending directly follows a consonant. Note that since gemination of consonants is regular when immediately preceded by another consonant (van den Hout, 1995a, p. 128), the geminated ending *-tti* is expected for consonant stems. Cf. e.g. *qastti* from *qas-^{tti}* 'to destroy' (cf. section 9.2.2) and *martti* from *mar-^{tti}* 'to command' (cf. section 9.1.2), but never ***qasti* or ***marti*.[37]

On the basis of Lyc. *esi* '(s)he is' < PA **ʔésti* (with the sound law PL **VstV* > Lyc. *VsV*), we are be at liberty to determine a marginal allomorph to the 3SG.PRES.A in *-i*. See also the discussion in section 3.3.9.

The ending *-ti* seems productive in competition with its isofunctional counterpart *-e* (see section 3.3.3). For example, the verb *pije-^{ti}* 'to give' has the 3SG.PRES.A form *pijeti* (cf. section 7.2.6). The verb corresponds to the Hittite *hi*-conjugating verb *pai-^{hi}/pi-* belonging to the *dai/tiyanzi*-class, by which we would rather expect the Lycian form ***pije* (cf. Hitt. *arāi* '(s)he raises' ≈ Lyc. *erije*). Consequently, the ending *-ti* seems to have been secondarily attached to this form (see sections 4.1.5 and 4.3.2 for elaboration on this topic). Note that this is not a case of analogical *replacement*, but a formation of a new present stem on the basis of an already conjugated form.[38] This would seem to be an indication that *-e* was losing salience to speakers as a 3SG.PRES.A ending, and needed clarification by the addition of an extra element. The spread of *-ti* to Pre-Lyc **pije* may be subsumed under the general productivity of the unlenited ending *-ti* in competition with the lenited allomorph *-di* discussed in section 3.1.

The form of the ending is shared by CLuw. *-(t)ti* and is typical of ancient Indo-European languages, indubitably to be derived from PIE **-ti*. Hitt. *-zi* has an identical origin.[39]

3.3.3 3SG.PRES.A *-e*

As stated in the preceding section, the 3SG.PRES.A has an additional ending allomorph in *-e*. Contrary to the early dismissal of a Lycian *hi*-conjugation by Morpurgo-Davies (1979, p. 578), this reflects the inherited *hi*-conjugation ending. As such, the ending *-e*

[36] Except perhaps in the puzzling attestation *ap*[.]*di* (TL94,3) to *app-* 'to seize', cf. section 9.1.1.

[37] Note however the probably erroneous spelling *xalte* (TL29,12) to *xal-^{tti}* 'to control; defend (vel sim.)', cf. section 9.1.4.

[38] Addition of an ending on top of an ending has precedent in Anatolian, cf. the innovation of the Hittite 3SG.PRET.A ending *-sta* built on the archaic ending *-s*.

[39] Note that the Hittite ending is partly analogical. The expected outcome of PA **-ti* is Hitt. *-z*, as confirmed for example by the reflexive particle Hitt. *-z(a)*, corresponding to Lyc. *-ti* and Luw. *-ti*. Therefore, the *-i* in the Hittite ending must have been inserted in analogy to the other PRES.A endings which preserved it (cf. Kimball 1999, p. 191). This is confirmed by the OH form ⟨ę-eš-za⟩ on KBo 6.2 iv 54, which lacks the final *-i*.

is cognate to Hitt. *-i/e* and Luw. *-ai*.[40] The validity of such an analysis is supported by comparanda such as Lyc. *erije* ≈ Hitt. *arāi* '(s)he raises'[41], Lyc. *ube* ≈ HLuw. *upai* ⟨(PES)u-pa-i⟩[42].

Given its infrequent attestation[43] and ongoing subjection to renewal processes as described in the previous section (e.g. *pijeti* « **pije*), the ending *-e* must be viewed as an archaism synchronically and was in all likelyhood severely moribund.

In search of an etymology for *-e*, we should first attempt to reconstruct the Proto-Luwic ending. Given the comparanda Luw. *-ai* ≈ Lyc. *-e*, the optimal reconstruction is PL *-*ə*. The rationale is the same as for the reconstruction of the 1SG.PRES.A ending PL *-*u* in section 3.3.1; there is no known development by which Lycian could have lost a final *-*i*, while there is plenty in terms of model for a Luwian analogical addition.[44]

The original Hittite 3SG.PRES.A ending of the *hi*-conjugation is *-e*[45], originating in PA *-*e-i*. We thus seem to be at liberty to reconstruct the monophthongisation of *-*ei*- as a Proto-Anatolian process, yielding a PA mid vowel */ẹ/ (using the notation in Melchert 1994, p. 53). This vowel would subsequently yield Hitt. /e/, while in Luwic it would be further split into */i/ (Luw. *idi* '(s)he goes' < PIE **h₁éi-ti*) and */ə/. The split may have been conditioned either by the position in the word (i.e. default PA */ẹ/ > PL */i/, but *-ẹ# > *-*ə*), or by accentuation (i.e. PA */ḗ/ > PL */ī/, but */ẹ/ > PL */ə/). The latter option seems more attractive given that it allows for dative/locative endings in hysterodynamic stems to be primary (PIE *-*éi* > PL *-*i*).[46] There is to my knowledge no available counterevidence.

Assuming */ẹ/ as the PA ending has the further benefit of avoiding the raising of */e/ otherwise expected in e.g. PIE **h₃r-ói-ei*, which gives *erije* and not ***eri* (vel sim.), cf. section 4.1.5.

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[40] The Luwian ending is also often given as *-i*. However, note that an analysis as *-ai* is justified, cf. notably Lyc. *ube* '(s)he offers' ≈ HLuw. ⟨(PES)u-pa-i⟩ '(s)he brings' (section 9.4.2), where the stem is surely a PL sequence *(*ʔ*)*ub*-.

[41] Notably not a *hi*-conjugating verb in Luwian, where it is reflected as an innovated unleniting *i*-stem. Cf. section 4.1.4. The equation between the two forms is not perfectly in accordance to regular phonological developments, but still beyond doubt. See individual entry in section 5.5.2.

[42] The verbs were connected already by Laroche (1967, p. 56) but without the crucial analysis as *hi*-conjugated.

[43] Only 5 verbs in Lycian can be claimed to be *hi*-conjugating: *dderi-*^{e}, *eri*(*jei*)-^{e}, *i*(*je*)-^{e}, *ñn-*^{e}, *ub*(*e*)-^{e}.

[44] The tendency to clarify present endings with an additional *-i* can now also be established as a general Luwian tendency.

[45] This is based on two forms in Old Hittite, which are spelled with an ending *-e*, as opposed to later *-i* (Oettinger 1979b, p. 544; Kloekhorst 2008, p. 378). The *-i* is easily accounted for as the normal marker of present tense. The forms in question are ⟨ma-az-zé⟩ '(s)he resists' and ⟨u̯a-ar-aš-še⟩ '(s)he wipes'.

[46] Under the current analysis, these are decidedly analogically replaced by simple *-i* in Hittite. Cf. Kloekhorst 2008, p. 376.

3.3.4 2PL.PRES.A *-tẽni*

The 2PL.PRES.A ending is given in parentheses in table 1 because of its uncertain existence. The postulation of 2PL.PRES.A in Lycian was first made by Carruba (1968, p. 21). There is only one example[47] which would not expressly prohibit an analysis as 2PL.PRES.A, i.e. *maxitẽni* (TL26,5).[48] Presumably, this finite verb would belong to a stem *maxi-* of unknown meaning attested nowhere else (cf. section 5.7.3). First of all, it must be noted that TL26 is broken off almost in half on its top part (cf. TL, p. 25). Unfortunately, only roughly 2/3 of line 5 is legible. Furthermore, the legible text provides little contextual information, as evident in (8).

(8) **TL26,5**
⟨epñ : maxitẽni : seine : ti[...]⟩

epñ *maxitẽni* *se=i* *ne* *ti-*
PREV m. CONJ=3SG.DAT/LOC NEG REL-PRON(?)

'After m. and not (on?) it/him/her who(?)'

There is no obvious reading implied by inner-textual material.[49] The analysis as 2PL.PRES.A is thus purely based on comparative induction. Cf. HLuw. *-tani* (Morpurgo-Davies, 1980, pp. 90f), and possibly but not surely CLuw. *-tani*[50], and beyond Luwic Hitt. *-tteni*. The Proto-Anatolian form is thus reconstructable as **-teni*, for which Lyc. *-tẽni* is the expected outcome. However, all things being equal, there are actually three possible grammatical analyses of *maxitẽni*:

- 2PL.PRES.A: Lyc. *-tẽni* < PA **-teni*
- 3SG.PRES.M: *maxit-ẽni* (cf. section 3.3.13)
- 3PL.PRES.M: Lyc. *maxitẽni* < Pre-Lyc. **maxĩtẽni* (cf. section 3.3.14)

Since there is no clear way of deciding between all three analyses, it will have to remain unsaid whether or not the 2PL.PRES.A is attested in Lycian or not.

[47] Lyc. *sitẽni* is surely a 3PL.PRES.M form. Cf. sections 3.3.14 and 5.3.7.

[48] Carruba (1968, p. 21) also cites further forms, all on the Xanthos stele (TL 44). However, these are exclusively on the northern and western side of the monument and in Milyan. Since this thesis does not primarily concern Milyan, these forms will not be commented on here.

[49] Indeed, contra Carruba, Melchert (DLL, p. 37) asserts that there is "no contextual support" for a reading as 2PL.PRES.A.

[50] Cf. CLL, p. 142. Only one potential form with this ending exists, and it has no secure analysis. The form in question is ⟨ma-ar-wa-ta-ni⟩ (KUB XXXVI.89 ii 26).

3.3.5 3PL.PRES.A -*˜ti, -ñti, -(i)ti*

The situation for the 3PL.PRES.A ending is similar to that of the 3SG.PRES.A (cf. section 3.3.2). It is well attested and offers no noteworthy complications in its interpretation.

Synchronically, the general rule seems to be that the variant -*˜ti* (with a preceding nasalised vowel) is used for vowel final verbal stems whereas -*ñti* occurs when the stem ends in a consonant. Furthermore, the nasalised vowel seems to sometimes have lost its nasalisation, possibly due to the following /t/ (Kloekhorst, 2013b, p. 147), cf. *hhati* (N320,41) to (*h*)*ha*-^{di} (section 6.2.3). Etymologically, the ending is clearly cognate to Luw. -*anti* and Hitt. -*anzi*, derived from the well-established PIE 3PL.PRES.A ending *-(*e/o*)*nti*.

As was demonstrated by Heubeck (1982, p. 118), there exist two large classes of Lycian verbs, -(*e*)*i*-^{di} and -*a*(*i*)-^{di}-verbs, for which there is no nasal indicated in the 3PL.PRES.A. The ending for these verbs is thus seemingly -*ti*. Cf. e.g. *tubeiti* 'they strike' from *tub*(*e*)*i*-^{di} (section 5.1.7) and *xttaiti* 'they harm' from *xtta*(*i*)-^{di} (section 6.1.7). This is due to the plural stem ending in -*i*-. Given that Pre-Lycian nasalised high vowels (**ĩ* < tautosyllabic PL **in/m* and **ũ* < PL **un/m*) are not explicitly indicated as nasalised in Lycian writing, the preform is reconstructible as PL *-*inti* > Pre-Lyc *-*ĩti* > Lyc. -*iti*.[51] As such, it could feasibly be argued that the Lycian 3PL.PRES.A ending has a further allomorph in -(*i*)*ti*.[52] However, it has been suggested that synchronic Lycian actually possessed the phonemes /ĩ/ and /ũ/, in which case the endings would not exist as separate from -*ñti*.[53]

3.3.6 1SG.PRET.A -(*x*)*xa, -ga*

The 1SG.PRET.A ending is well attested enough in the language to be considered secured. The final -*a* of the ending consistently causes *a*-umlaut in verbs with stem final -*e*-, causing variable stems ending in -*a*-. E.g. *pijaxa* (1SG.PRET.A) beside *pijeti* (3SG.PRES.A) from

[51] In fact, this reconstruction is confirmed by word equations such as Lyc. *tubeiti* ≈ CLuw. *dupainti* 'they strike' (see section 4.1.1).

[52] Given the existence of this allomorph, it is debatable whether or not the first /i/ is to be regarded as part of the stem or of the ending. There may be indications that it was in fact salient as part of the ending, however (cf. section 4.2.1).

[53] For example, Melchert (AHP, p. 291) has expressed an openness to the possibility that /ĩ/ and /ũ/ were real phonemes in Lycian not indicated in the writing. Conversely, Kloekhorst (2009, p. 121) has argued that this cannot be the case, since he analyses the 3PL.PRES.A verb *puñtẽ* as /pũtẽ/, which he claims shows that Lycian writing could indicate nasalised high vowels, but by different means. Consequently, the ending -*iti* is to be regarded phonologically as /iti/. However, the argument does not close the case, since there is to my mind nothing in particular barring an analysis of ⟨puñtẽ⟩ as /puntẽ/. The best argument is much simpler: since the writing does not possess separate symbols for nasalised high vowels and nothing otherwise indicates their existence, we are not at liberty to postulate them.

pije-^{ti} 'to give'. A geminated allomorph is attested for C-stems, e.g. *xalxxa* 'I defended (vel sim).' from *xal-^{tti}* (cf. section 3.3.2).

On the basis of cognate forms in Luwian with *-(*h*)*ha*, we can without reservations reconstruct a PL ending in *-Ha*. As in the case of 1SG.PRES.A (see section 3.3.1), Hittite and Luwic appear to have made separate choices with regards to generalisation.[54] While Luwic only has one 1SG.PRET.A ending, Hittite has one for the *mi*-conjugation (*-un*) and one for the *hi*-conjugation (*-hhun*). Given these endings, Hittite appears to have innovated a new ending *-hhun* on the basis of *-un* (EDHIL, pp. 362f). While Hitt. *-un* can be derived from PIE *-*m̥* (the known 1SG.A secondary ending of PIE), PL *-*Ha* and the base of Hitt. *-hhun* (*-hh-*) seem to find their source in PIE *-*h₂e*, the non-Anatolian Indo-European 1SG.PERF.IND.A ending (cf. Gk. -α, Skt. *-a* with Brugmann's law blocked by the laryngeal). On the basis of this, we must reconstruct two separate 1SG.PRET.A endings for PA: *-*n* and *-*Ha*. Out of these, Hittite made the first productive whereas Luwic generalised the latter.

3.3.7 3SG.PRET.A -(*t*)*te, -de*

The 3SG.PRET.A is one of the most well attested verbal endings of Lycian. This is not least due to its inclusion in the most frequent formula of the Lycian corpus: the opening line of the common Lycian epitaph (see example (2) in section 3.2). Consequently, there is no need to justify the validity of *-te/-de* as the 3SG.PRET.A ending in Lycian.

In comparison with the Luwian 3SG.PRET.A ending *-ta* (CLuw. *-tta*, HLuw. *-ta*), we may reconstruct an ending *-*tə* for Proto-Luwic. This ending may in turn be compared to the Hittite 3SG.PRES.A ending for stems ending in a consonant *-ta*, licensing the reconstruction of a PA ending *-*to*. Note that this is shape identical to that of the mediopassive (i.e. Hitt. *kitta* '(s)he lies'[55] < PA **ḱḗdo* < PIE **ḱéi-to*). Per Kloekhorst (EDHIL, pp. 800f), this ending was analogically inserted due to the opacity caused by the loss of *-*t* in post-consonantal position (e.g. Hitt. *ēsta* < PA **ʔésto* « Pre-PA **ʔés* < PIE **h₁és-t*). The same origin may be postulated for the Luwic 3SG.PRET.A ending *-*tə*.[56]

Parallel to the 1SG.PRES.A and the 1SG.PRET.A endings (sections 3.3.1 and 3.3.6 respectively), the Luwic languages differ from Hittite in having generalised PA *-*to* while completely abandoning all other endings (i.e. allomorphs found in Hittite: *-*t* < PIE *-*t* and

[54] The 1SG.PRET.A ending is included in Tritsch's 1950, p. 506 famous comparison between Lycian and Luwian, and as such serves as one of the first true arguments for a Luwic subgrouping.

[55] Note that Hittite does away with lenited endings. Thence the ending *-tta* and not **-ta*.

[56] So also per Watkins (1969, p. 174), Jasanoff (1988, p. 73), and Yoshida (1991, pp. 370[31]).

*-*s* < PIE *-*s*).[57]

As can also be observed for the 3SG.PRES.A ending (section 3.3.2), the unlenited allomorph of the 3SG.PRET.A ending is occasionally geminated. However, unlike as for *-tti*, the geminated 3SG.PRET.A ending *-tte* occurs not only after consonants. There are cases of *-tte* occuring after a vowel, specifically /a/, e.g. *epatte* (TL40d,2) from *epa-*^{tti} 'to appropriate' (vel sim., cf. section 6.4.1).[58] As already stated in section 3.3.2, gemination after consonants is regular. Conversely, there is no general rule postulating geminated *-tt-* after a vowel, and likewise not after /a/ specifically. Therefore, another solution is necessary to explain these cases, discussed in section 4.2.4.

3.3.8 3PL.PRET.A -*˜te, -ñte, -(i)te*

As with the 3SG.PRET.A ending, the 3PL.PRET.A is among the more common finite verb forms, and thus requires no functional discussion.

See section 3.3.5 for an explanation of the distribution of *-˜te* and *-ñte*. The mechanisms are identical for 3PL.PRET.A. Likewise, the discussion in section 3.3.5 concerning a potential allomorph *-(i)ti* in ablauting verbs is relevant also for the 3PL.PRET.A ending (giving *-(i)te* respectively).

It should be noted that Hittite took a different generalisational path than Luwic with respect to the 3PL.PRET.A ending. Hittite completely did away with the inherited PIE secondary ending *-*nt* (which yielded uncharacterised *-*an*) and generalised the *hi*-conjugation ending *-er*. Conversely, Luwic generalised the ending *-(*o/e*)*nto* to all verbs (cf. Luw. *-anta*). According to Yoshida (1991, pp. 369f), Luwic took over the ending *-(*e/o*)*nto* from the 3PL.PRET.M.

3.3.9 3SG.IPV.A -*(t)tu, -du, -u*

The function of the ending *-tu/-du* as 3SG.IPV.A may be ascertained with a fairly high degree of certainty, occuring in prohibitive clauses and in apodoses of curses.

While the form *esu*, formed to the verb *es-*^{i} 'to be' (cf. section 9.3.1), looks like a 1SG.PRES.A form, it is in fact 3SG.IPV.A. This is supported by e.g. the context of apodosis and NOM.SG

[57] Note that this implies that Eichner's second lenition rule (see section 3.1) continued to be active in Luwic times, considering that the spread of *-*to* to vowel final stems must be post-PA (Old Hittite has *-t* for vowel final *mi*-conjugating stems). The alternative would be to assume analogy to the 3SG.PRES in all leniting stems (i.e. the *-*d-* in *-*do* from corresponding PRES *-*di* as formally matched to unleniting stems taking PRES *-*ti* and *-*to*). However, regular sound developments are to be preferred over analogy whenever possible, and there is to my mind no reason to not assume regular developments here.

[58] We must probably reckon with unattested 3SG.PRES.A endings with geminated consonants for the same verbs. See section 4.2.4 and the individual entries for the relevant verbs (sections 6.4.1 and 6.4.2).

subject *httẽmi* 'wrath' in example (9) from TL91.[59]

(9) **TL91,3**
⟨mewejesuhttẽmi⟩

me=we=i *es-u* *httẽm-i*
PTCL=PTCL=3SG.DAT/LOC be-3SG.IPV.A wrath-NOM.SG.C

'May wrath be upon him'[60]

This confirms the sound change PL **VstV* > Lyc. *VsV* (cf. Luw. *astu*[61]).[62] An illustrative comparison is also available in the 3SG.PRES.A of the same verb: Lyc. *esi* < PA **ʔesti*. Furthermore, we may postulate a marginal allomorph of the 3SG.IPV.A in *-u* (cf. section 3.3.2).

Etymologically, the Lycian ending *-(t)t/-du/-u* is readily comparable to CLuw. *-(t)tu*, HLuw. *-tu/-ru*, and Hitt. *-ttu*, securing a Proto-Anatolian reconstruction in **-tu*. The ending is furthermore regularly traceable to the classic PIE reconstruction of the 3SG.IPV.A ending as **-tu* given in handbooks (cf. e.g. Clackson 2007, p. 129; Fortson 2010, p. 105).

3.3.10 2PL.IPV.A *-tẽnu*

Similarly to the 2PL.PRES.A ending (cf. section 3.3.4), the 2PL.IPV.A is given in parenthesis in table 1 due to its uncertain existence. The ending was postulated as 2PL.IPV.A first by Pedersen (1904, pp. 194f), an analysis which was resounded by Neumann (1983, p. 145).

There is only one possible example of a form conjugated as 2PL.IPV: the form *lawitẽnu* attested on TL107a,2, see example (10).

(10) **TL107a,2**
⟨ebeije : lawitẽnu : munikleimẽ : se [...]⟩

ebeij=e *lawi-tẽnu* *munikleim-ẽ* *se*
here=3SG/PL.NOM.C ?-? ?-NOM/ACC.SG.N CONJ

[59] Meaning of *httẽmi* with Schürr (1997, pp. 62ff). See also GdL, pp. 104f for other readings. A common alternative is 'responsible', which would be equally supporting for the reading of *esu* as a 3SG.IPV.A. The translation in (9) would thus be something like 'may (he) be responsible for it'. However, Schürr's translation is to my mind preferable, being supported by HLuw. parallels (ibid., p. 64). Note also that ⟨-j-⟩ could potentially be read as a hiatus breaker, without much change in meaning (Kloekhorst, pers. comm.).

[60] Alternatively: 'May he be angry at him', if we interpret *httẽmi* as an adjective.

[61] CLuw. ⟨a-aš-du⟩, HLuw. ⟨⟨á/a-⟩sa-tu⟩.

[62] Note that the consonant stems ending in /s/ are exempted from this sound law due to there originally being a vowel between the /s/ and the ending, see section 4.5.2.

Given that there is no established meaning for either the verb *lawi-* or the noun *munikleimẽ*, it is difficult to reach any decisive conclusion. Furthermore, the pronoun *=e* is ambiguous. If *-tẽnu* is a 2PL.IPV.A ending we must analyse it as 3PL and postulate a sort of *áyam asmi* construction as known from Vedic Sanskrit, where a third person pronoun agrees with a verb conjugated in another person.

Both Melchert (DLL, p. 35) and Hajnal (1995, p. 161) refute an analysis of *-tẽnu* as 2PL.IPV.A, and rather take it as a 3SG.IPV.M, which would also be the only example of its kind in Lycian (also given in parentheses in table 1). As such, the enclitic element *=e* can easily be analysed as a 3SG.NOM.C pronoun. In this case, the *-nu* would have to be an analogically inserted element marking middle voice, for which parallels exist in the present indicative middle forms (cf. sections 3.3.12, 3.3.13, and 3.3.14).

If *=e* is analysed as 3PL, *lawitẽnu* may likewise be a 3PL.IPV.M. The nasal element would be regularly dropped after the high stem vowel *-i-*.

An interpretation as 2PL.IPV.A has good comparative parallels. An exact match may be found in the lenited Hieroglyphic Luwian ending *-ranu* (Morpurgo-Davies, 1980, pp. 91f). On the other hand, Hittite has the ending *-ten* and Cuneiform Luwian *-tan*. Since there is a good model for an analogical insertion of *-u* to a base *-ten* (i.e. 3SG.IPV.A *-tu*), while a loss of *-u* is completely unmotivated, the Proto-Anatolian and Proto-Luwic ending should be reconstructed as **-ten*. The analogy seems trivial enough to postulate as possible for both Hieroglyphic Luwian and Lycian independently in order to avoid having to group these two languages closer together as separate from Cuneiform Luwian. Conversely, the pronoun *=e* is arguably more compatible with a 3rd person reconstruction.

3.3.11 3PL.IPV.A *-˜tu*

The 3PL.IPV.A ending is only attested for one verb stem: *(t)ta-*^{di} 'to put, place' (section 6.2.4). However, it is abundantly attested in prohibitive sentences for which a 3PL form is contextually expected (as inferred from the cases with 3SG.IPV.A, cf. section 3.3.9). Furthermore, the shape of the ending is formally completely expected on the basis of comparative evidence (cf. Hitt. *-antu*, Luw. *-antu* < PA **-(o/e)ntu*). As in the case of the 3SG.IPV.A, it may be connected to the generally accepted PIE reconstruction **-(e/o)ntu*.

Note that the ending, unlike the other active 3PL endings, has no allomorph in ***-ñtu*. This is surely an accident of attestation, given that the 3PL.IPV.A is never attested for a consonant final stem.

3.3.12 1SG.PRES.M *-xani*

The identification of the middle voice in Lycian is to be attributed to Melchert (1992a). In the same article (p. 194), he convincingly analysed Lyc. *sixani* as a 1SG.PRES.M form of the verb *si-*^{ti} 'to lie' (section 5.3.7). There is only one other possible case of the 1SG.PRES.M in Lycian: *maxani* on TL45b,10 formed to the verb *ma-*^{ti}, yet this form occurs in a very obscure context and cannot be regarded as secured (cf. section 6.3.7).

Etymologically, the only possible Anatolian link is found in the Hittite 1SG.PRES.IND.M ending *-hha(ri)*. It would be fitting to at this point comment on the general correspondence between Hitt. *-r-* and Lyc. *-n-* in the middle forms. Cf. 3SG.PRES.M Lyc. *-ẽni* vs. Hitt. *-ari*, 3PL.PRES.M Lyc. *-˜tẽni* vs. Hitt. *-antari*, and possibly 3SG.IPV.M Lyc. *-tẽnu* vs. Hitt. *-(t)taru* (see discussion in section 3.3.10). The two elements are not derivable from eachother by any known sound law, and the Luwian ending *-(tt)ari* means that we cannot favour the nasal element over the rhotic element for our reconstruction of the Proto-Luwic ending. As such, the Lycian nasal is without obvious origin.[63] Melchert (1992a, p. 193) tried to explain it as the nasal element of the nasalised preterites with an added analogical vowel *-i* from the other present forms. However, he was only at liberty to do this due to the then still obscure mechanism governing the appearance of nasalisation. The explanation of nasalised preterites advanced in this thesis (see section 3.2) does not seem to be particularly compatible with Melchert's suggestion. In either case, we can reconstruct a Proto-Anatolian base for the ending as **-Ha*. The element */H/ likely finds its source in the PIE secondary middle 1SG ending **-h_2(V)*. The exact reconstruction of the ending (whether it contains a vowel or not, and the quality of this vowel) is debated, but the element **-h_2-* can be securely reconstructed. For a discussion on this topic, see Kortlandt 1981. Kortlandt himself favours an ending PIE **-h_2* (cf. Skt. *-i*), in which case the vowel */a/ found in Anatolian would have to be secondary (probably from the 1SG.PRES.A ending *-x/ga*).

3.3.13 3SG.PRES.M *-ẽni*

The existence of the of the 3SG.PRES.M ending *-ẽni* was proven by Melchert (1992a, p. 194) in the form *sijẽni* 'lies'.[64] This is the only verb with which the ending is known to occur, not counting the insecure analysis of *maxitẽni* discussed in section 3.3.4.

Within Anatolian, *sijẽni* may be directly compared to CLuw. *zīyar(i)*. Furthermore, a functionally identical form but with a different ending is attested in Hitt. *kitta(ri)* (to the

[63] As opposed to the rhotic element in Luwian and Hittite, which finds clear parallels in Italic, Celtic, and Tocharian (Yoshida, 1991, p. 361). Alwin Kloekhorst (pers comm.) has suggested that the 3PL may play a part, where a rhotic ending (i.e. Hitt. *-er*) may be found.

[64] The form was in fact translated as 'lies' already by Pedersen (1945, p. 18).

cognate verb *ki-*$^{tta(ri)}$). The Lycian and Cuneiform Luwian forms may be directly compared to Ved. *śáye*, all reflecting a base PIE **ḱéi-o*. The PIE ending **-o* has been famously argued by Oettinger (1976) to represent an archaic *stative* inflection (to which the verb 'to lie' is well fitted). On the other hand, Kortlandt (1981, p. 126) sees the dichotomy between **-o* and **-to* as one between the ending used for deponent roots (**-o*) and the ending for transitive middle verbs (**-to*), which would also work for the famously deponent Indo-European verb 'to lie'. The element *-ni* is regular for Lycian present middles (see discussion in section 3.3.12).

It remains unknown whether Lycian possessed a 3SG.PRES.M ending in **-tẽni* as expected in comparison to Luw. *-(t)tar(i)* and Hitt. *-(t)ta(ri)*. See the critique of Melchert's proposal to analyse Lyc. *sitẽni* as 3SG.PRES.M in the following section.

3.3.14 3PL.PRES.M -*˜tẽni*

There are only two cases of a possible 3PL.PRES.M ending in *-˜tẽni*: *sitẽni* (TL44b,61 and N320,25) and *maxitẽni* (TL26,5). As seen in section 3.3.4, the latter case provides little contextual basis for any secure analysis. It was argued by Melchert (1992a, pp. 194f) that *sitẽni* is to be analysed as 3SG.PRES.M, which would then correspond to Hitt. *kitta(ri)*, Pal. *kītar*, and by extension Skt. *śéte*, Gk. κεῖται (< PIE **ḱéi-to-*). However, Kloekhorst (2009, pp. 129f) has convincingly argued that *sitẽni* is rather to be analysed as 3PL.PRES.M. Among the best arguments are the fact that a preform PIE **ḱéi-to* ought to yield Lyc. **side* and that the verb shows agreement with a plural pronoun in TL44b,61 (*ebeija* 'those').[65] As such, Lyc. *sitẽni* is the regular outcome of Pre-Lyc **sĩtẽni* < PIE **ḱéi-nto* (> Hom. Gk. κέατο).

It is unfortunate that there are no attestations of stems ending in a non-high vowel taking the 3PL.PRES.M ending, which would allow absolute confirmation of *-˜tẽni* as its form.

3.3.15 1SG.PRET.M -*xagã*

The analysis of the form Lyc. *axagã* as the 1SG.PRET.M form of the verb *a(i)-*^{di} 'to do, make' was what allowed Melchert (1992a) to postulate the middle voice in Lycian in the first place. It occurs only once and is the only case of the 1SG.PRET.M ending. See (11) for the context.

[65] Furthermore, there is no obvious reason why two isofunctional forms would have been retained until Lycian times.

(11) **TL44c,3-4**
⟨meñ[n]emu : axagã : maraza⟩

me=ñne=emu *a-xagã* *maraz-a*
PTCL=3PL.DAT/LOC=1SG.NOM make-1SG.PRET.M judge-NOM.SG.C

'I was made (became) judge for them'

The reading is appropriate in the context and corroborated by the use of the Luwian middle with the cognate verb *a*(*ya*)- meaning 'to become'. The nasalisation on the last vowel may not be of the same nature as other nasalised preterites (see section 3.2), but rather be part of the ending. Cf. HLuw. *-han* (Melchert 1992a, pp. 195f; Carruba 1984, pp. 58f).

Etymologically, the Lycian ending *-xagã* corresponds to Hitt. *-hhahati*, reflecting inherited PA **-Haha*.[66]

3.3.16 3SG.PRET.M *-tte*

Postulated by Serangeli (2018b, pp. 145-148) to explain the verb forms *epatte* and *epenẽtijatte*. See section 4.2.4 for an elaborate critique of the alleged 3SG.PRET.M ending *-tte*.

3.3.17 3SG/PL.IPV.M -(˜)*tẽnu*

Given in parentheses because of difficulty in analysis. See section 3.3.10 for discussion. If extant, then it would be the only attested middle imperative ending attested in Lycian.

4 Verbal stem classes

In this section the Lycian verbal stem classes are established and discussed. Each class is treated with regard to its defining properties and its etymological origin. The input types of the Lycian classes are determined in each section, with the conclusions of all sections visually summarised in section 4.6.

As in previous classifications,[67] the two parameters by which Lycian verbal stem classes are established are *stem formant* and *ending allomorphy*. These two are consistent in every verb[68] and have etymological relevance, forming suitable typological

[66] With this reconstruction, the existence of a lenited ending Lyc. **-gaga* can be hypthesised, cf. section 3.1.

[67] Specifically DLL, p. xii and Kloekhorst 2013b, p. 148.

[68] However, note that unlenited endings become productive throughout the period of Lycian transmission. Recall from section 3.1 that verbs which have at least one form with a lenited ending are to be considered as basically leniting, irrespective of how many other forms with unlenited endings said verb takes.

criteria. The stem formant is the last sequence before the ending, consisting of one or more phonematic segments.[69] Ending allomorphy refers to the form of (chiefly) the 3SG endings (see e.g. section 3.1).

In the classificatory system employed in this thesis, macro-classes have been established which are further subdivided into subclasses. The macro-classes are unified in having a similar stem formant (e.g. *i-stems* which all have *-i-* as stem formant in at least one form). Subclasses are determined on the basis of other factors, mainly ablaut and choice of ending allomorph. As will become apparent in the following sections, verbs assigned to a certain subclass may in fact belong to another, a fact which is hidden from us due to scarce attestation. This is an artifact of subclasses being determined purely on descriptive observations. Crucially, however, it is in principle impossible that a verb may be mistakenly placed in the wrong macro-class, e.g. an *i*-stem verb actually being an *a*-stem verb.

4.1 *i*-stems

The following subclasses are unified by all taking a stem formant *-i-* in at least one form.

4.1.1 The *i/ei*-ablauting class (-(*e*)*i*-^{di})

Verbs that belong to the *i/ei*-ablauting class are characterised by taking a stem formant *-i-* in the singular with lenited endings, while having 3PL and non-finite forms with the differing stem formant *-ei-*.[70] E.g. 3SG.PRES.A *tubidi* : 3PL.PRES.A *tubeiti* to the verb *tub*(*e*)*i*-^{di}. Since these verbs have a variable stem formant where an *-e-* is present in some forms and not in others, they are notated with -(*e*)*i*-^{di}. Note that since no instance exists of a stem formant alternation with *-ei-* and any other vowel than *-i-* exists, a verb only attested in the plural or in a non-finite form with a stem formant *-ei-* is regarded as belonging to the *i/ei*-ablauting class.

The *i/ei*-class is well represented in Luwian, as made most clear by Morpurgo-Davies (1982/83, p. 266). The classic word equation and *Paradebeispiel* for this conjugation type is Lyc. *tubidi* : *tubeiti* ≈ CLuw. *dupiti* : *dupainti* ≈ HLuw. *tupiri* : *tupai*(*n*)*ta*[71], all meaning 'to strike'. Given this correspondence, we can without further reservations recon-

[69] Generally, comparative evidence and the structure of Indo-European languages allow for an analysis in which the stem formant is an independent bound morpheme, a suffix, attached to a verbal root (e.g. PIE **-ié/ó-* in unleniting *i*-stems, see section 4.1.3). As such, stem formant is a highly useful and relevant term in describing and explaining the shape of the Lycian verb.

[70] See section 3.3.5 for a discussion of the different plural ending these verbs take.

[71] Note that the HLuw plural form is in the preterite. No 3PL.PRES.A form is attested for the verb *tup*(*a*)*i-* in HLuw.

struct the type for Proto-Luwic with the shape 3SG *-*i-di*[72] : 3PL *-*əi-nti*, i.e. a prehistoric *i/əi*-ablauting stem type.

Regarding the etymology of the the **i/əi*-class, current consensus consensus seems to favour an origin in PIE causative/iterative *CoC-éie/o*-type presents and thematic denominatives in **e-ié/ó-*.[73] Per Melchert (1997, pp. 134f), the scenario runs as follows.

Initially, it is observable that many verbs belonging to this type are denominative: e.g. CLuw. *tarm*(*a*)*i-* 'to fasten down' vs. CLuw. *tarma/i-* 'nail'.[74] For this reason and the stem forming *-i-*, it is tempting to invoke a source in the denominative suffix PA *-*ié/ó-*. However, the source cannot be the sequence *-*C-ié/ó-*, because this input yields another class (unleniting *i*-stems, see section 4.1.3). Thus, we postulate an input *-*V-ié/ó-*. Yet, this input type cannot give lenition, cf. the rules in section 3.1. To solve this issue, Melchert suggests a merger with the well-known Indo-European causative/iterative type formed with *o*-grade in the root and a suffix *-*éie/o-* (the *CoC-éie/o*-type, cf. Ved. *dhāráyati* < PIE **d*^{h}*or-éie-ti*, LIV, p. 145). With this shape, lenition of the ending is expected for according to Eichner's second lenition rule (see section 3.1). The accentuation in the suffix of original iteratives in **CoC-éie/o-* would accordingly be spread to the thematic denominative stems in *-*e-ié/ó-* on account on the identical suffigal vocalism.[75] As examples of Luwic original *CoC-éie/o*-type verbs Melchert adduces the Lyc. *tubidi*-family (< *(*s*)*toub*^{h}*-éie-ti*[76]) and CLuw. *wis*(*a*)*i-* 'to oppress, crush' (< **uois-éie-ti*).[77] Consequently, we have a merger into one single paradigm in (early) Pre-PL of the shape 3SG *-*eie-dV* : 3PL *-*eio-ntV*. The singular form would first undergo raising from */e/ to */i/ after non-syllabic */i/, yielding *-*e͡ii-*, which subsequently contracts to *-*e͡i-* and ultimately becomes PL *-*ī́-*. The plural suffix does not undergo raising due to the suffix-final vowel being */o/. This vowel is rather syncopated before the last reconstructable tier of PL, after the monophthongization of *-*ei-* diphthongs in interconsonantal position that affected the singular suffix (Melchert, 1994, pp. 275f): Pre-PL *-*éio-nti* > PL **əi-nti*. As such, we arrive at the desired apophony in the Proto-Luwic input: 3SG *-*ī-dV* : 3PL *-*əi-ntV*.

[72] The stem formant *-i-* can in principle be with or without accent, long or short.

[73] Cf. e.g. Hajnal 1995, pp. 148f; Melchert 1997, pp. 134f; Serangeli 2018b, p. 64.

[74] Note that the Lycian *i/ei*-ablauting is likely a productive denominative strategy for non *a*-stem nouns until at least very recently in Lycian times. Cf. e.g. the cases of *mm̃*(*e*)*i-*^{di} (section 5.1.4) and *kumez*(*e*)*i-*^{di} (section 5.1.2).

[75] In a talk which I did not attend but only have the handout for, Melchert asserts that it is possible that the PIE **o-ie/o*-stem was presuffigally accented, which would remove the need for analogy (2018). However, this raises a number of formal problems which will not be discussed here for lack of space.

[76] Note that Melchert (1997, p. 135) assumes further accent retraction from *(*s*)*toub*^{h}*-éie-ti* to *(*s*)*tóub*^{h}*-eie-ti*. This also holds for his account of CLuw. *wis*(*a*)*i-*.

[77] In a talk which I did not attend but only have the handout for, Melchert seems to retract this view, and does apparently now hold for PL **tub*(*ə*)*i-*^{di} to be denominative (2018). This view is also held in the present thesis, see section 5.1.7. There is no comparative evidence for the given form, which rather looks like a transponate.

There are some issues with Melchert's scenario, to be outlined below.

Firstly, the existence of a thematic denominative *e-ié/ó*-type in Anatolian is highly dubious. According to Oettinger (1979b, pp. 357f), it had merged with the *o-ié/ó*-denominatives (the productive *hatrae*-class) in Pre-Hittite at the latest.[78] Naturally, this presupposes that the type existed at all in Proto-Anatolian, for which there is no good positive evidence. Indeed, Melchert (1997, p. 134) states that "the evidence remains very slim and controversial".[79] As such, it is a weak base for a stem type as pervasive as the Luwic *i/Vi*-stems, and necessitates the multiplication of entities (i.e. stem types) on the PA tier.

Secondly, the necessary Proto-Luwic syncope in the plural form, i.e. **-eiø-nti* > **-ei-nti* is dubious. Melchert (AHP, pp. 275f) asserts that post-tonic syncope after semivowels must be assumed for Proto-Luwic[80], and presents two central pieces of evidence. The first concerns CLuw. nouns such as *tammaur* 'handful' and *lammaur* '?', which in comparison to Hittite nouns in *-āwar* reflect Pre-PL **-ā́war* (< **-ā́wr̥*) with syncope of the last vowel. Postulating syncope for these forms is perilous in that the syncopated vowel is epenthetic from a syllabic resonant. It remains unclear what the phonemic status of this vowel was and if it arose already in Proto-Anatolian. It is likely that it was schwa-like, and thus not to be analysed as equal to e.g. the reflex of PIE */e/ (cf. Kimball 1986, pp. 99f). Furthermore, direct counterexamples like CLuw. *kursawar* 'island' further complicate the issue.[81]

The second piece of evidence is found in the CLuw. 1PL.PRES.A ending *-unni*. In comparison to isofunctional Hitt. *-weni*, a PA preform is reconstructed as **-uéni*. The geminate nasal is yielded regularily by Čop's law. Syncope occurs in forms with accent retraction, and the shape of the ending is subsequently generalised from these forms. I.e. PA **-uéni* > **-uénni* > **ˊ-uɛ́nni* > CLuw. *-unni*. Aside from involving a relatively convoluted development (postulating accent retraction and generalisation from these spe-

[78] The Hittite *hatrae*-type is likely reflected in Lycian leniting *e*-stems. See section 4.3.1.

[79] In Melchert 1984, pp. 35f, it is argued that the OH iterative ⟨uš-ne-eš-kat-ta⟩ 'is put up for sale' (KUB XXIX.29 vs. 12.15) reflects an iterative formation of a stem PIE **usne-ié/ó-*, i.e. a denominative **e-ié/ó-* type. The stem found in the rest of Hittite is *usniye/a-*, implying a *ié/ó*-type formation. Note here that *-eske/a-* is also the normal shape of iteratives formed to *hatrae*-type verbs. Therefore, if *usneskatta* is taken seriously, *usniye/a-* is an analogical stem formed to either a *hatrae*-type verb or an original stem in **-e-ié/ó-*. Although Melchert (ibid.) is right that analogical replacement of a *hatrae*-stem is unexpected, *usneskatta* is to my mind not evidence enough to postulate a PA stem type which there is no other good evidence for in Hittite, and which then supposedly becomes ubiquitous in Hittite. For this reason, *usneskatta* is not taken as sufficient evidence for a PA *e-ié/ó*-type here. For an alternative analysis of the likewise adduced stem *duwarn(i)-zi* 'to break', see EDHIL, pp. 905ff.

[80] In a handout, Melchert (2018) asserts that the syncope happened independently in Lycian and Luwian.

[81] Melchert attempts to explain this particular item by alluding to "its prehistoric status as a verbal noun of *kursā(i)-*" (AHP, p. 276). However, this is an unsatisfactory explanation, given that the meaning of the verb and the noun are far removed.

cific forms), the scenario presupposes that the Hittite form is archaic. Given the stark formal similarity within Hittite to the 2PL.PRES.A ending *-teni*, we are forced to reckon with the possibility of analogical developments in the prehistory of Hittite. This weakens the probative power of *-unni*, although it probably remains the best example (see below for an alternative explanation).

The last argument in AHP invokes the Luwic *i/Vi*-ablauting verbs, which is circular in the present context.

Hajnal follows Melchert in accepting Luwic post-tonic syncope to explain verbal *i/ei*-ablaut.[82] Moreover, Hajnal (1995, p. 149) attempts to be more explicit in its description. The input required to trigger syncope is given as the following: */-CV́i̯/u̯VRT/, */-CV́i̯/u̯VNN/, and */-CV́i̯/u̯VR#/, revealing the high level of specificity required in the input. At this point, it is important to recall that this would constitute the *only* instance of syncope occuring on a PL tier, increasing its unlikelyhood. Even if the evidence above (*-unni*, *lammaur*, etc.) is valid in terms of reflection, there are better ways to explain it. Note that all instances concern *-*V́uV-* and never *-*V́iV-*. Alternatively one may postulate some form of labialisation process affecting post-tonic vowels preceded by non-syllabic *-*u̯-*. This is preferrable, since it is closely paralleled by Luwic raising, with the difference that Luwic raising does not discriminate with regards to accent.

Finally, Luwic syncope is problematic for Norbruis' (forthc.) recent account of the rise of the Luwic *i*-mutating nominal stem. This scenario necessitates that the PA sequence *-*éioC-* is reflected as PL *-*əC-*: the oblique case forms of proterodynamic *i*-stems lose their yodh intervocalically, which renders them indistinguishable from oblique case forms of *o*- and C-stems, triggering an analogical merger in which the stem formation of the direct cases is generalised from the *i*-stems. E.g. GEN.SG desinential *-*éios* > PL *-*əs*, identical to PL *-*əs* < PIE *-*Cos*. Norbruis' otherwise economical solution is not compatible with Luwic syncope, by which e.g. PA *-*éios* ought to give PL **-*əis* and ultimately PL **-*is*, disallowing the merger.

In conclusion, Luwic post-tonic syncope is highly unlikely to have occured. This fact, coupled with the lack of evidence for PA denominatives in **e-ié/ó*, renders the etymology of the Luwic **i/əi*-ablauting verbal stem currently favoured by the field questionable. Accordingly, an alternative explanation which does not operate with syncope is presented below.

First, it must be established through comparative evidence which input types there is evidence for. In other words, the stem type of non-Luwic cognates of **i/əi*-ablauting verbs may provide top-down evidence of their origin. I follow previous scholars in con-

[82] "Grundsätzlich ist der angenommene Wandel von anatol. */-V́i̯onti/ mit Synkope zu */-V́i̯nti/ möglich" (Hajnal, 1995, p. 149).

necting the **i/əi*-type to PIE causative/iteratives in **CoC-éie/o-*, despite the scanty direct evidence for this type in Hittite.[83] This is based primarily on the key stem equation Lyc. *telixa* 'I turned (vel sim.)' (TL29,6, cf. section 5.3.8) ≈ CLuw. *kuwal(a)i-* 'to turn' (cf. CLL, p. 114) ≈ Skt. *cāráyati* 'he puts in motion' (cf. LIV, p. 386f), all regularly reflecting a PIE causative stem **k^{w}ol-éie/o-* 'to make turn' to the root **k^{w}el-* 'to turn (intr.)'.[85] There is also addtional, but less secure evidence to support this stem equation.[86]

The other main piece of comparative evidence comes in the form of the Hittite *hatrae*-type. Since Oettinger (1979b, pp. 357f), this type is reconstructed as *ié/ó*-denominatives formed to *o*-stem nouns, i.e. *o-ié/ó*-stems. Direct evidence for the connection is found in the equation Hitt. *tarmae-^{mi}*[87] ≈ CLuw. *tarm(a)i-*, both meaning 'to hammer (vel sim.)' and are denominative from a noun **tor-mo-* 'nail, peg' (> Hitt. *tarma-*, CLuw. *tarma/i-*). Reconstructing a PA stem **tor-mo-ié/ó-* is thus licensed. The equation is further supported by the pervasive denominative function of the PL **i/əi*-stem. At this point, the present theory diverges from that of Melchert (1997) et al., who rather assume that the *hatrae*-type only corresponds to Lycian leniting *e*-stems, and that the denominative type underlying the PL **i/əi*-stem is *e-ié/ó*-stems.

With these two input types established through comparative evidence, the next step is to investigate whether they are formally capable of yielding the attested Luwic forms.

The first obstacle is the lenited endings characterising the type in Luwic. According to the rules outlined in section 3.1, the *CoC-éie/o*-type and the *o-ié/ó*-type differ in this respect; the *CoC-éie/o*-type becomes leniting, the *o-ié/ó*-type unleniting. It would thus appear that the lenition is generalised from the *CoC-éie/o*-type.[88] In the previous model, this was the chief reason that the *e-ié/ó*-type was invoked: the identical suffigal vocalism to the *CoC-éie/o*-type would enable the spread of lenition to the denominative stem. Here, it is important to recall that the *i/əi*-type is strictly Luwic; the types do not merge in Hittite.[89] A characterising sound law of the Luwic languages is the merger of PA */e/

[83] A common example is *lāk^{i}-/lak-* 'to knock out (act.), to fall (med.)' from the PIE root **leg^{h}-*[84], yielded from a stem **log^{h}-éie-* (Eichner, 1973, p. 99) and subsequently analogically transferred to the *hi*-conjugation on basis of a formal matching in the *o*-grade of the root (Kloekhorst, 2018, p. 100). Comparative evidence for such a construction may be found in OCS *ložiti*, Got. *lagjan* 'to lay'.

[85] Note that LIV reconstructs **k^{w}elh$_{1}$-*, but this is not done everywhere, and is of limited relevance here.

[86] E.g. CLuw. *tars(a)i-* '?' ≈ Hitt. *tārs-^{hi}* 'to dry' (cf. Oettinger 1979b, p. 452) ≈ Lat. *torreō* 'to dry' < PIE **tors-éie/o-* (LIV, p. 637); Lyc. *t(a)rb(e)i-^{di}* ≈ Luw. *tarp(a)i-* 'to destroy (vel sim.) ≈ PG **darbjan* < PIE **d^{h}orb^{h}-éie/o-* (cf. section 5.1.5); Lyc. *ϑri-^{di}* 'to order, command' ≈ Skt. *dhāráyati* 'sustains' < PIE **d^{h}or-éie/o-*.

[87] Attested already in OH as a 1SG.PRES.A ⟨tar-ma-e-mi⟩, cf. EDHIL, p. 844.

[88] Or the accentuation, depending on how far along in the sequence of sound laws characterising Luwic that consonant gradation is active.

[89] In Hittite, the *CoC-éie/o*-type is reflected as a *hi*-conjugating verb, cf. footnote 83, and the *o-ié/ó-*

and */o/ to PL */ə/. This is important: after the merger, the original *CoC-éie/o-* and *o-ié/ó-*types are rendered suffigally identical, i.e. with the suffix 3SG *-ə̯ii-* : 3PL *-ə̯iə-*.[90] Thus, a generalisation of the lenited ending allomorphs is formally vindicated within the confines of Luwic historical phonology.

At this point, we are left to explain how the stem formants *-i-* and *-əi-* are yielded from our input type Pre-PL *-ə̯ii-/-ə̯iə-^{di}. First, the suffix *-i-* is treated.

The suffix *-i-* is rather unproblematic, assuming the same reflex of the PA sequence *-o-ié/ó-* (effectively *-ə̯ii/ə-^{di}) as in the previous model. First, the intervocalic *-i̯- is dropped, yielding *-əi-*. In the previous description given above, the term *contraction* was used. This betrays an antiquated view of Luwic historical phonology; in current scholarship, regular loss of intervocalic *-i-* is more or less consensual.[91] Subsequently, the resulting diphthong is monophthongised to *-i-* (or perhaps rather *-ī-*). Note that this diphthongisation occurs far down the line in Luwic (i.e. after many exclusively Luwic sound changes), and is thus in no way related to the monophthongisation processes active in PA (this distinction will become important below). Thus, the 3SG suffix *-i-* is explained.

Explaining the 3PL and non-finite stem formant *-əi-* is not as straightforward as *-i-*. The input form is as established Pre-PL*-ə̯iə-*. The syncope proposed in the previous scenario is rejected here for reasons given above. Consequently, the next sound law to affect the sequence is loss of intervocalic *-i̯-, as in the case above. This gives the sequence *-əə-*, which is probably soon contracted to *-ə- (probably long *-ə̄-*).

It is at this point that analogy is necessary to proceed. The resulting suffigal apophony **i/ə* finds to my knowledge no reflex in Luwic.[92] It is as such likely that the alternation was deemed unacceptable by Pre-PL speakers, and that levelling thus took place. If the singular suffix was generalised in a given verb, the result was a PL **i/əi*-stem (how will be made clear below), while a generalised plural suffix *-ə̄- gave a leniting *e*-stem in Lycian (more on this in section 4.3.1).

At this stage of Pre-PL, we have a the non-apoponic 3SG *-əi-dV* : 3PL *-əi-ntV*. Here, the reality of *secondary* monophthongisation mentioned above becomes relevant. That

denominatives as the *mi*-conjugating *hatrae*-type. The differing output of the types is telling; the fact that they end up in such distinct types is directly explainable through the lack of the merger between PIE */e/ and */o/ which occurred in Luwic.

[90] Luwic raising must have preceded the merger of PA */e/ and */o/, since it in only affecting */e/ differentiates between the two vowels.

[91] Cf. Kimball 1999, pp. 366; Rieken 2007, pp. 67f; Yakubovich 2008, p. 68; Norbruis forthc..

[92] One exception might be the tentative cognacy between Lyc. *hm̃mẽti* ≈ HLuw. ⟨sa-ma-ni-ha⟩, see section 7.4.1.

Luwic underwent independent monophthongisation processes is beyond doubt: cf. perhaps most illustratively CLuw. *ūttis* ⟨ú-ut-ti-iš⟩ 'you drink' (KUB XXXV.133 ii 25, cf. AHP, p. 241), cognate to Hitt. *eku-^{mi}/aku-* 'to drink' and thus reflecting a PIE root **h₁eg^{wh}-* (cf. CLL, p. 242; EDHIL, p. 236f). Since the change PA */g^{w}/ > PL */u̯/ must logically precede the monophthongisation to *u-* (< **(ʔ)əu̯-*), it is decidedly an independently Luwic process. I.e. PIE **h₁ég^{wh}-C-* > PA **ʔég^{w}C-* > Pre-PL **(ʔ)əu̯C-* > PL **(ʔ)ūC-*. We may consequently hypothesise about the conditioning of this sound change. By that token, it is hypothesised here that secondary monophthongisation occurs everywhere *except* before nasals. As such, the 3PL and participial forms are, unlike e.g. the 3SG forms, exempt from monophthongisation, since their characterising morphemes begin in a nasal (**-n-* and **-M-* respectively). Thus, we arrive at the desired PL input apophony **i/əi*.

In the following, the claim that secondary Luwic monophthongisation does not affect diphthongs preceding nasals will be substantiated.

The CLuw. word *aumma* ⟨a-um-ma⟩ (KUB XXXV.123 iv 5) is to my knowledge currently lacking analysis and is completely obscure (cf. CLL, p. 42. With exemption of secondary monophthongisation postulated above, CLuw. *aumma* could be analysed as the regular NOM/ACC.PL.N participle of *u-* 'to drink'.[93]

The CLuw. word for 'oil, fat' is *tāin-*. Per Starke (1990, pp. 241), the word is radically related to Gk. στέᾱτος (< στᾰ̯́ιαρ/στᾰ̯́ιατος) 'fat', reflecting a stem PIE **(s)toh₂-én-*. Conversely, Oettinger (2003, p. 340) connects the word to Hitt. *sakan/sakn-* 'oil, fat' and reconstructs a collective PIE **soǵ$^{(h)}$-én*.[94] Irrespective of which etymology is correct, the point stands that a PL secondary diphthong does not monophthongise before the *-n-*.

It is remarkable to note that the sequences with a diphthong preceding a nasal are common in Luwian, whereas diphthongs before other consonants are tremendously rare.[95]

Differential treatment in the monophthongisation of diphthongs is not without precedent in Anatolian. Consider for example the fate of PIE *oi/u*-diphthongs, which in

[93] Admittedly, the textual context does not speak either for or against, the word occuring on the broken side of a tablet. In either case, a word that previously lacked analysis now has one.

[94] In the view of Luwic historical phonology employed here, accent retraction to the root and consequent shortening of the *-ē-* would probably be necessary for this etymology; PIE */ē/ does not give Luw. /ī/. Cf. CLuw. *zārt-* 'heart' < PIE **ḱérd-* and Hajnal 1995, pp. 61-65.

[95] The only examples are to my knowledge CLuw. ⟨pa-ši-ḫa-it-ta⟩ '(s)he pulverised (?)' (KUB XIV.3 ii 24), ⟨da-it-ta⟩ '?' (KUB XXV.37 ii 34), and ⟨a-na-a-it-ta-ri⟩ '?' (KUB XXXV.107 iii 5.25). Note that *pasihaitta* occurs in a late Hittite text, and may thus be a conflation with *pasihae-^{zi}* (cf. EDHIL). CLuw. *daitta* is obscure has no consensual analysis, and could as such equally be seen as the imperative form *tāi* 'step' (cf. CLL, p. 200) followed by the local particle *=tta*. Thus *anāittari* remains the only proper counterexample, yet likewise remains obscure. The form must probably be understood in relation to the CLuw. noun *anāhit-* (cf. Starke 1990, pp. 158f). It is possibly relevant that none of the mentioned forms have an accepted etymology.

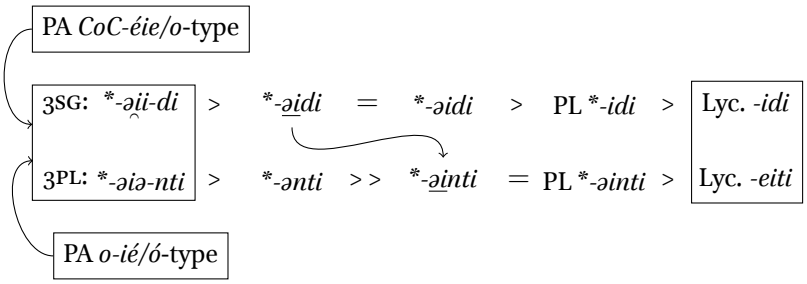
Hittite remain diphthongs before alveolar consonants but monophthongise elsewhere (EDHIL, pp. 100ff). In the case of Luwic secondary monophthongisation, a possible phonetic justification could concern the high sonority of nasals as opposed to plosives or nasalisation of the preceding vowel.

All things being equal, there is to my knowledge no counter-evidence to postulating an exemption from secondary Luwic monophthongisation for diphthongs preceding nasals.

The alternative scenario for the origin of the PL **i/əi*-stem now having been outlined in detail, a step-by-step summary is presented below. See also figure 2 for a schematisation.

1. Comparatively induced PA origin types: the causative/iterative *CoC-éie/o*-type and the denominative *o-ié/ó*-type (Hitt. *hatrae*-type).
2. Luwic raising, i.e. PA **i͡e* > PL **i͡i*.
3. Merger of PA */o/ and */e/ to PL */ə/; original *CoC-éie/o-* and the *o-ié/ó*-types receive identical vocalism in the suffix, i.e. **-əi͡i-/-əi͡ə-*.
4. Ending allomorphy generalised in favour of the original *CoC-éie/o*-type. Both origin types consequently merge, yielding a unified Pre-PL type **-əi͡i-/-əi͡ə-*^{di}.
5. Loss of intervocalic **-i͡-*: irregularises the paradigm and gives the suffigal apophony **-əi-/-ə̄-*.
6. Paradigmatic levelling of the suffix in favour of the singular (specifically in the case of **i/əi*-ablauting verbs, cf. conversely section 4.3.1)
7. Secondary monophthongisation. Diphthongs before nasals are exempt. Gives the PL input apophony **i/əi* required to explain the types attested in Luwian and Lycian.

Figure 2: The genesis of the Lycian *i/ei*-ablauting class



In the following list, the necessary assumptions which need to be true for the scenario to function are given.

1. Generalisation of lenition from the original *CoC-éie/o*-type.
2. Paradigmatic levelling in the suffix.
3. Retention of secondary PL diphthongs before nasals.

Number 1 is essentially already assumed in the previous scenario and is to be considered trivial. Regarding number 2, there is circumstantial evidence that PL was very analogically active in its verbal paradigms around this stage of development. For original *ié/ó*-stems, cf. e.g. CLuw. 3PL.PRET.A *tummantinta* instead of expected ***tummantiyanta* with the original 3PL suffix allomorph **-ió-*. Cf. also the generalisation of the stem formant *-i-* in original *hi*-conjugating athematic *i*-stems (see section 4.1.5) and the subsequent renewal with the 3SG.PRES.A form as base (see section 4.3.2). All things being equal, paradigmatic levelling of suffigal apophony should be seen as a fairly trivial development. The most bold assumption thus remains number 3. However, this must be viewed in light of the competing sound law, i.e. syncope occuring in a highly specific sequence in a language that does not otherwise exhibit syncope.[96]

Finally, the advantages of the scenario presented here in relation to the previously assumed etymology are listed below.

1. Avoids the unlikely Proto-Luwic syncopation rule.

[96] Anatolian syncopation is not completely unheard of, however. Namely, syncope has been proposed by Rieken (2008; 2009) in the sequence **-Vlo-* (i.e. **-élo-* > **-él-*) in order to explain the Hittite *l*-genitive, Hittite *ī*- and *ūl*-stems, and Luwian instrument nouns in *-al-*. Since syncope could yield PA **-einti* from **-éionti*, an expansion of the law from only being active in sequences including **-r-* and **-l-* to all resonants could be invoked to account for Luwic *i/Vi*-ablaut. However, this is problematic in several respects. Since the law has reflexes in both Hittite and Luwian, I take it as implicitly PA. Assuming syncope with the same specific input sequence independently in both branches is in either case highly uneconominal and should only be considered as a last resort. Consequently, we must assume retention of Pre-PL diphthongs before nasals *anyway*, since syncope would necessarily predate PL monophthongisation. In other words, we do not gain much in competition with the scenario advanced here in terms of explanatory power. What we lose, however, is a model for the analogy which yields lenition in *o-ié/ó*-denominatives; why would a stem that had the PA shape **-éie-/éi* (< *CoC-éie/o* with syncope) merge with one of the shape PA **-oié-/-oió-* (denominative)? Allowing more liberty in the assignment of PA suffigal vocalism and accent (e.g. reconstructing *é-ie/o*-denominatives, vel sim.) is unable to provide a solution with less necessary assumptions, and is not directly licensed by the data. A comprehensive discussion covering all conceivable inputs is too complex to be included here. Note also that this is without discussing the consequences for domains outside of verbal stem formation. In sum, Rieken's syncope rule cannot to my mind be extended to operate on sequences pre-PA **-Vio-* and subsequently be used to explain Luwic verbal *i/Vi*-ablaut.

2. Reduces the amount of necessary stem types in PA by eliminating the need for a PA stem in *-*e-ié/ó-*. Effectively removes the necessity to reconstruct an otherwise unattested type, which is desirable from a bottom-up perspective.

3. Gives the origin of the *hatrae*-type (i.e. the *o-ié/ó*-type) a prevalent spot in Luwic, which agrees with its ubiquity in Hittite.

4. Effectively explains the origin of two Lycian stem types, i.e. the *i/ei*-ablauting type and the leniting *e*-stem type (see section 4.3.1).

5. Is compatible with the otherwise satisfactory etymology of the *i*-mutating nominal class as devised by Norbruis (forthc.): the theory requires the sequence PA *-*éio-* to be reflected as PL *-*ə-*, and the syncope of the previous scenario would rather yield *-*əi-*.

The following verbs belong to the *i/ei*-ablauting class: *ep*(*e*)*i-*^{di}, *kumez*(*e*)*i-*^{di}, *mlm̃m*(*e*)*i-*^{di}, *m̃m*(*e*)*i-*^{di}, *t*(*a*)*rb*(*e*)*i-*^{di}, *ttl*(*e*)*i-*^{di}, *tub*(*e*)*i-*^{di}, *zrppud*(*e*)*i-*^{di}.

4.1.2 The leniting *i*-stem class (*-i-*^{di})

The leniting *i*-stems take a stem formant in *-i-* and display lenited verbal endings. E.g. 3SG.PRES.A *dderlidi* from the verb *dderli-*^{di}.

For the verbs assigned to this class, no plural forms are attested. As such, the leniting *i*-stem class may be a mirage of attestation, with all leniting *i*-stems actually being *i/ei*-ablauting stems. Indeed, in DLL e.g. *ϑri-*^{di} is lemmatised as *ϑr*(*e*)*i-*. The reasoning behind this not being explicitly done here is comparative: Luwian knows verbs with lenited endings, a stem formant *-i-* in the 3SG, but without the diphthong *-ai-* in the stem formant of the 3PL. Cf. CLuw. *i*(*ya*)- 'to go' with 3SG.PRES.A ⟨i-ti⟩ vs. 3PL.IPV.A ⟨i-ya-an-du⟩.[97] It cannot thereby be excluded that some of the verbs assigned here are not *i/ei*-ablauting. The provisory nature of the class cannot be understated, however.[98]

The following verbs belong to the leniting *i*-stem class: *asi-*^{di}, *dderli-*^{di}, (*ti*)*xzzi-*^{di}, *ϑri-*^{di},[99] *xurzi-*^{di}.

4.1.3 The unleniting *i*-stem class (*-i-*^{ti})

The verbs assigned to this class have a stem formant in *-i-* and take unlenited endings. E.g. 3SG.PRES.A *epriti* from the verb *epri-*^{ti}.

[97] Cf. also HLuw. *izi*(*ya*)-, a leniting non-*i/ai*-ablauting verb.

[98] For example, *ϑri-*^{di} is likely an *i/ei*-ablauting stem on account of etymological considerations, see section 5.2.4.

[99] Very likely to actually be a *i/ei*-ablauting verb.

First of all, it must be noted that no plural forms of this type exist in attested Lycian. Therefore, we cannot know its shape, and must turn to comparative evidence.

The unleniting *i*-stem type is also represented in Luwian (e.g. CLuw. *katmarsitti* '(s)he defecates'). We may consequently project the conjugation type back to Proto-Luwic.[100] To yield the necessary Proto-Luwic shape **-i-ti*, we require an accented *e*-grade vowel before the ending to avoid lenition (cf. section 3.1). We also need a non-syllabic */i/ before the */e/ to yield the necessary raising to */i/ (cf. Hajnal 1995, pp. 67f). As such, we reach the reconstruction of a Proto-Anatolian verbal suffix **-ié-* providing the input for unleniting *i*-stems. Conveniently, we arrive at the well known PIE *ié/ó*-type (corresponding to Hittite *ye/a*-verbs, cf. EDHIL, pp. 129f). This is moreover the input that Melchert (CLL, p. v) postulates for the Cuneiform Luwian type.

The suffix **-ié/ó-* is known to have had a denominating function (cf. Oettinger 1979b, pp. 351f), which can be observed to have been the case in Luwic prehistory as well. Cf. CLuw. *tummantitta* '(s)he heard' vs. CLuw. *tumman(t)-* 'ear, hearing'). Primary, deradical, non-denominative *ié/ó*-verbs of the type *CC-ié/ó-* exist as well, however. The type is well-known from PIE (e.g. Gk. βαίνω 'to go' < PIE **g^{w}m-ié/ó-*), and is also represented in Lycian, e.g. in *tti-*^{ti} 'to pay' < PIE **k^{w}e-k^{w}i-ié/ó*, cf. section 5.3.9.

Despite being notated in CLL with *-i(ya)-*, the type generally takes a 3PL in *-intV* in Cuneiform Luwian (e.g. *tummantinta* 'they heard').[101] However, the expected vocalism of the suffix in he plural form at a Proto-Anatolian (and PIE) stage is an *o*-grade, i.e. **-ió-*. The expected outcome of the sequence **-iónt V* in PL is ***iántV*, without raising of the suffix vowel, and subsequently CLuw. *-iyantV*.[102] The Luwian forms with a stem formant in *-i-* for the plural are thus likely analogical to the singular forms. Consequently, it is entirely possible that the hypothetical Lycian plural forms have inherited apophony in a regular *-ijẽtV*. If we project the analogy back to Proto-Luwic, however, it may be subsumed under the same analogical tendency discussed in section 4.1.1.[103] Two possibilities thus exist for the plural stem formant of the Lycian unleniting *i*-stems: **-i-* (favoured by comparanda from Luwian) and **-ije-* (favoured by top-down reconstruction). Given the ubiquity of non-apophony in Luwian unleniting *i*-stems, the former is most likely the more common in Lycian.

[100] Essentially, we cannot explain the type away with references to the productivity of unlenited endings within Lycian, cf. section 3.1. This possibility cannot be excluded for *all* Lycian verbs of this class, however.

[101] Counterexamples to this tendency are limited. To my knowledge, the only counterexample in CLuw. is *tarsitta* '(s)he vomited' with the corresponding 3PL.PRET.A form *tarsiya[nta]* (cf. CLL, p. 217), where the ending is not even directly attested.

[102] See footnote 101.

[103] Note that not all *ié/ó*-verbs are affected by ablaut in this period. Cf. e.g. the potential counterexample in footnote 101. Note also Rieken's (2007) analysis of HLuw. *izi(ya)-* 'to make; venerate', under which the PL stem formant **-ió-* is kept in the plural and reflected as *-ia-*.

The fact that no plural forms exist for this class has further implications for the solidity of the Lycian class assignment. It can be observed that the *hi*-conjugating *i*-stem class (see section 4.1.5) also has a 3SG.PRET.A in *-i-te* (cf. crucially 3SG.PRES.A *erije* vs. 3SG.PRET.A *erite* to the verb *eri*(*jei*)-^{e}). Consequently, it cannot be ruled out that verbs assigned to the unleniting *i*-stem type which are only attested in the 3SG.PRET.A in actuality belong to the *hi*-conjugating *i*-stem class.[104] We are thus forced to draw up a descriptive distinction between unleniting *i*-stem verbs *proper*, which belong to the class by virtue of attestation(s) in the 3SG.PRES.A, and verbs which have possibly been assigned to said class by accident of attestation respectively.

The following verbs properly belong to the unleniting *i*-stem class: *epri*-^{ti}, *ewi*-^{ti} (?), *ɬawi*-^{ti} (not secured), *pzzi*-^{ti}, *tti*-^{ti}.

The following verbs tentatively belong to the unleniting *i*-stem class: *ddewi*-^{ti}, *qehñni*-^{ti}, *serni*-^{ti}, *si*-^{ti}, *teli*-^{ti}[105], *xi*-^{ti}.

4.1.4 The *ije/i*-ablauting class (*-i*(*je*)-^{ti})

The *ije/i*-ablauting class takes a stem formant *-ije-* in the singular and *-i-* in the plural. This class is only represented by one verb in the Lycian corpus: *pibije*-^{ti} 'to give'.

Lyc. *pibi*(*je*)-^{ti} is within Lycian clearly a reduplicated variant of *pije*-^{ti} 'to give' (cf. section 7.2.6). This verb in turn has cognates in Hitt. *pāi*-^{hi}*/pi-* and Luw. *piya-*.[106] Both cognates are *hi*-conjugating, and thus the *mi*-conjugation in Lycian is surely secondary (see section 4.3.2 for elaboration on this transfer).

The stem formations of *pibi*(*je*)-^{ti} and *pije*-^{ti} differ in the 3PL: *pibi*(*je*)-^{ti} takes a 3PL.PRES.A form *pibiti*, while *pije*-^{ti}, being an unleniting *e*-stem, takes a 3PL.PRET.A *pijẽte*. As such, we have a difference of plural stem formant *-i-* vs. *-ije-*. In order to understand this alternance, an understanding of the shared history of the two verbs is necessary.

There are two competing etymological views of Hitt. *pāi*-^{hi}*/pi-* and related verbs. The traditional view sees the verb as a univerbation of a preverb **pe* (vel sim.) and a verb **ai-* (vel sim.).[107] In the opposing view, the verb is analysed as an athematic *i*-stem with *hi*-conjugating endings, i.e. a *CC*-(*ó*)*i*-type.[108] This analysis was put forward by Kloekhorst

[104] Case in point *xi*-^{ti} 'to perform animal sacrifice', see section 5.3.10.

[105] Lyc. *teli*-^{ti} is almost certainly an originally *i/ei*-ablauting stem.

[106] E.g. HLuw. ⟨pi-ia-i⟩ '(s)he gives' (AKSARAY §7).

[107] E.g. PIE **pe* + *ai* per Melchert 1989, p. 44, **pói* + $h_{1/3}oi$ per Oettinger 1979b, p. 470.

[108] A similar, but *mi*-conjugating type, has been described for Indo-Iranian, Balto-Slavic, and Italo-Celtic. In Indo-Iranian, we have *kśéti* : *kśiyánti* 'dwell', directly reflecting PIE **tḱ-éi-ti* : *tḱ-i-énti* (Kortlandt, 1989, p. 109). Some Balto-Slavic *i*-verbs contain traces of this type (e.g. OPr. *turrei* : *turri* 'have', cf. Kortlandt 1987, p. 109). Finally, the Latin *capere*-type of the 3rd conjugation and Celtic BII-presents can only be understood

(2006a) and is the one sided with here for reasons given in the cited article.[109] As such, our PIE input forms are 3SG.PRES.A *(*h*$_1$*pi-*)*h*$_1$*p-ói-ei* and 3PL.PRES.A *(*h*$_1$*pi-*)*h*$_1$*p-i-énti*.[110] Note however that PIE reconstructions of the traditional view would likewise function for the scenario outlined below.[111]

The PL output of our established input forms is 3SG *(*pī*)*biə*[112] : 3PL *(*pī*)*bianti*[113]. The **-a-* in the plural surfaces in neither of the two Lycian verbs, and therefore we should assume analogical developments for both stems. While the history of *pije-*^{ti} can be understood in light of the general tendency of Lycian to renew old *hi*-conjugating verbs on the basis of the 3SG.PRES.A form (see section 4.3.2), the history of *pibi*(*je*)-^{ti} cannot.

In short, he 3PL.PRET.A form *pijẽte* is the result of a general reformation of the stem on the basis of the expected 3SG.PRES.A form **pije*, which resolves the apparently awkward stem formant apophony **-i/ia-*, i.e. 3SG **piə* : 3PL **pianti*.

In the case of *pibi*(*je*)-^{ti}, the apophony in the stem formant[114] was resolved differently: *-i-* was generalised throughout, giving PL 3SG.PRES.A **pibiə*, 3PL.PRES.A **pibinti*.[115] That the stem indeed was PL **pibi-* is substantiated in CLuw. by the derived *ssa*-iterative ⟨pí-pí-iš-ša⟩ (2SG.IMP.A, KUB XXXV 133 iii 17).

Note that both *pibi*(*je*)-^{ti} and *pije-*^{ti} underwent analogical addition of the unlenited ending *-ti* in the 3SG.PRES.A, cf. section 3.3.3. At least for *pije-*^{ti}, this occurred in post-PL times, as evidenced by the Luwian cognate 3SG.PRES.A form *piyai*.

4.1.5 The *hi*-conjugating *i*-stem class (*-i-*^{e})

The *hi*-conjugating *i*-stems differ from the other *i*-stems in that they take *hi*-conjugated endings. Effectively, the only difference is the ending *-e* in the 3SG.PRES.A instead of *-ti/-di*. E.g. 3SG.PRES.A *dderije* from the verb *dderi-*^{e}.

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as athematic *i*-presents with a generalised weak suffix in Proto-Italo-Celtic **-i-* (Schrijver, 2003).

[109]The plural form Hitt. *piyanzi* necessitates a preverb *p-* in the traditional view, for which there is no evidence. Moreover, an ablaut **a/ø* is suspect a priori (Lubotsky, 1989). For the class at large, it is more desirable to reconstruct systematic and predictable alternation rather than "root extenstions" (vel sim.).

[110]The PRES.A forms are chosen since they are most useful when presenting the view forwarded here.

[111]The crucial element is the prehistoric ablaut **-Vi-/-i-* in the stem formant, with which the traditional reconstructions also operate.

[112]The stem formant *-i-* is analogical from all other singular forms of the paradigm, see the following section 4.1.5.

[113]The sequence **-ent-* becomes **-ant-* already in PA (Kloekhorst, 2013a). Cf. NOM.SG.C for the name of the Anatolian Storm-God Lyc. *Trqqas* < PIE **trh*$_2$*u-ént-s* > CLuw. ^{d}IŠKUR-*anza*. It is likely that this sound law should be extended to affect PA **-eRT-*, cf. section 9.1.2.

[114]The general unacceptability of apophony can be understood in light of similar paradigmatic levellings which occured in the prehistory of the *i/ei*-ablauting verbs (see section 4.1.1) and the unleniting *i*-stem verbs 4.1.3). Altogether, it seems that PL was very intolerant of apophony in stem formants at a certain point in its history.

[115]A similar process is probably underlying CLuw. *arinti* 'they raise' (« PL **ərianti* < PIE **h*$_3$*r-i-énti* > Hitt. *ariyanzi*). The unleniting ending in CLuw. *-tti* is in light of cognate Lyc. *erije* an independent innovation.

This class is sometimes notated with *-i*(*jei*), given the infinitive *erijeinV* from the verb *eri*(*jei*)-^{e}. In the present thesis this convention is not explicitly followed, since said infinitive formation is very likely secondary and not necessarily characterising of the class as a whole.[116]

Only 2 verbs may be subsumed under the current class: *dderi*-^{e} and *eri*(*jei*)-^{e}. Note that these verbs are not be treated as proven *hi*-verbs in the literature (especially older).[117] In this thesis, however, both are taken to be real Lycian *hi*-verbs. See Vernet 2018 for justification and references.

As mentioned in the previous section, the *hi*-conjugating *i*-stems originate in *hi*-conjugating athematic *i*-stems with the shape *CC*-(*ó*)*i*-. Following the analysis of the Hittite *dai/tiyanzi*-type by Kloekhorst (2006a) as originating from this type, this analysis of the Lycian material is confirmed by the comparanda Lyc. *eri*(*jei*) : Hitt. *arāi*-^{i}*/ari*- 'to raise'.[118]

Hitt. *arāi*-^{i}*/ari*- 'to raise' is generally compared to Lat. *orior* 'to arise', licensing a radical reconstruction PIE **h*$_3$*er*- (cf. Oettinger 1979b, p. 479). As an athematic *i*-stem, the expected preforms **h*$_3$*r-ói-ei* : **h*$_3$*r-i-énti* would regularly give Hitt. *arāi* : *ariyanzi*.[119] In Lycian, some analogy is required. The 3SG.PRET.A form *erite* is expected,[120] with regular analogical substitution of original *hi*-conjugated ending **-s* with **-tə* (Yoshida, 1993), i.e. Pre-PL **ərīs* > PL **ərītə*, cf. CLuw. *aritta*.[121] For the 3SG.PRES.A however, regular sound laws would give something like Lyc. ***ere* (< PL **ərə* < Pre-PL **ərəiə* < PIE **h*$_3$*r-ói-ei*), since the diphthong **-oi-* would not be in interconsonantal position and thus not monophthongise.[122] A fairly trivial development with levelling of the stem formant as **-i-* at any point between post-PA (Pre-PL) and PL[123] thus needs to be postulated.[124] Note that an *i*-timbre vowel would at the time of analogy have been present in all other forms (since they end in a consonant, e.g. expected PL 1SG.PRET.A **ərīha* < PIE **h*$_3$*r-ói-h*$_2$*e*), so there is certainly no lack of model.

[116] There is to my knowledge no regular way to get *erijein-* from a preform **h*$_3$*r-ié-un-*.

[117] The same goes for subclassified *i*(*je*)-^{e} 'to buy', cf. the following section.

[118] Perhaps also very tentatively also Lyc. *dderi-* : Hitt. *tarāi*-^{i}*/tari* 'to exert oneself'. Cf. section 5.5.1.

[119] With expected substitution of original *hi*-conjugation ending *-e* with *-i*. Cf. section 3.3.3.

[120] For the vocalic reflex of sequence **#h*$_3$*R-* in Luwic, cf. HLuw. *alamanza* ⟨á-la/i-ma-za⟩, Lyc. *alama* < PIE **h*$_3$*neh*$_3$*-men*.

[121] The corresponding 3SG.PRES.A form *aritti* is assumed to be analogical. See footnote 115.

[122] Note also that it is assumed that the unaccented reflex of PA */ę/ does not undergo Luwic raising to */i/. Cf. section 3.3.3.

[123] Cf. Luw. *pi̯yai* '(s)he gives' and Pre-Lyc **pije* for which the generalisation is demonstrably shared and thus of Proto-Luwic age.

[124] Cf. possibly the levellings in sections 4.1.1, 4.1.3, and 4.2.2. This could possibly be subsumed under the same analogical tendency.

4.1.6 The *hi*-conjugating *i/ije*-ablauting class (*i*(*je*)-^{e})

The *hi*-conjugating *i/ije*-ablauting class (*i*(*je*)-type) is only represented by one verb: *i*(*je*)-^{e} 'to buy'.[125] Being characterised by *hi*-conjugation and a stem formant in *-i-*, the *i*(*je*)-type is to be analysed as an ablauting subclass to the *hi*-conjugating *i*-stem verbs.

Note that the existence of this class is based on the reality of a form *ije*, which is open to dispute (see section 5.6.1). Hence, the following should be viewed as relatively tentative.

Given the formal similarity between the *ije*-type and the *hi*-conjugating *i*-stems, comparison is justified. There is discrepancy in the stem formant of the 3SG.PRET.A forms of *eri*(*jei*)-^{e} and *i*(*je*)-^{e}: *erite* vs. *ijetẽ*.[126] The first form takes *-i-* whereas the second takes *-e-*. The form *ijetẽ* must be understood in the context of Lycian actively creating new unleniting *e*-stem paradigms on the basis of old *hi*-conjugated 3SG.PRES.A forms (cf. e.g. completely analoguous 3SG.PRES.A *ube* vs. 3SG.PRET.A *ubete*, see sections 3.3.2 and 4.3.2). As such, it is clear that *-i-* represents the older form, and thus the characteristic form of *hi*-conjugating *i*-stems, whereas *ijetẽ* is secondary. As such, the *i*(*je*)-type is indeed a subclass to the *hi*-conjugating *i*-stem, and *i*(*je*)-^{e} originally belonged to it.

The analysis above is compatible with the etymology for *i*(*je*)-^{e} suggested in section 5.6.1: a *hi*-conjugating root formation PIE *$*h_2$(*ó*)*i-*. With this etymology, the expected original Lycian 3SG.PRET.A is indeed **ite* (< PL **ītə* « **īs* < PA **ʔói-s* < PIE **$h_2$ói-s*), analogous to *erite*. Consequently, the PIE input must be expanded from the **CC-*(*ó*)*i*-type to also include *hi*-conjugating root formations with a radical coda in */i/, i.e. PIE **C*(*ó*)*i-*.

4.2 *a*-stems

The following subclasses are unified by all taking a stem formant *-a-* in at least one form.

4.2.1 The *a/ai*-ablauting class (*-a*(*i*)-^{di})

The *a/ai*-ablauting verbs take a stem formant in *-a-* in the singular and *-ai-* in the plural. The endings of the *a/ai*-verbs are in principle always leniting.[127] E.g. 3SG.PRES.A *xttadi* : 3PL.PRES.A *xttaiti* to the verb *xtta*(*i*)-^{di}.

[125] Note that the common notation is *ije-*. However, the stem of the 3SG.PRES.A form *ije* is not *ije-*, but *i-*. The *-e* is in fact the finite ending and ⟨j⟩ is mandatory when representing the sequence /-ie-/. Thus the notation *i*(*je*)- is used for the sake of consistency. Cf. *dderi-*, notated as such following the same rationale; the stem *dderije-* is never attested, but the 3SG.PRES.A form *dderije* is, to be segmented *dderi-*(*j*)*e*.

[126] No 3SG.PRET.A form is attested for *dderi-*

[127] The only counterexamples are 1SG forms to the verb *a*(*i*)-^{di} 'to do, make', to which there also exist leniting variants. These must in all likelyhood be attributed to the productivity of the unlenited endings. See section 3.1.

The *a/ai*-verbs seem to be denominating to *a*-stem nouns, cf. *maza*(*i*)-^{di} '?' with nominal suffix *-z-*, implying a noun Lyc. **maza-* built to the verb *ma-*^{ti} 'to command'.[128] Before the following discussion, however, it should be noted that the 'primary' verb *a*(*i*)-^{di} is to be etymologically separated from the rest of the *a/ai*-verbs. See the individual section on *a*(*i*)-^{di} (6.1.1) for an in depth discussion.

While the *a/ai*-ablauting class is well represented in Lycian, the Luwic evidence of an *a/ai*-type is actually extremely scarce.[129] To my knowledge, the type is completely absent in Hieroglyphic Luwian.[130] This leaves only Cuneiform Luwian, in which there are three possible candidates. The first is the verb *pasihā*(*i*)- of unknown meaning. Here, the ablauting forms are not the ones we expect: the diphthongal suffix is found in the 3SG.PRET.A ⟨pa-ši-ha-it-ta⟩ rather than in a form of the 3PL (not attested). Therefore, the enigmatic *pasihā*(*i*)- is hardly probative. The second example is the verb *aruna*(*i*)-, which is also of unknown meaning.[131] For this verb, only the 2SG.IPV.A ⟨a-ru(-ú)-na⟩ and 3PL.IPV.A ⟨a(-a)-ru-na-an/in-du⟩ are attested. Both conjugations are attested only twice, and with variable spelling. Note that only one of the two 3PL attestations is spelled with a diphthongal suffix, severely limiting the probative value of this verb. The last possible example is *tissā*(*i*)-, for which yet again the meaning is not known. It is attested twice (both with *Glossenkeile*), once in the 2SG.IPV.A as ⟨ti-iš-ša-a-i⟩ and once in the 3PL.PRET.A as ⟨ti[-iš]-ša-in-ta⟩. This is potentially the best example of an *a/ai*-type in Luwian, clearly showing the ablaut. However, as far as best examples go, it is a rather poor one, being both badly attested and without established meaning. It is also regrettable that no 3SG form of the verb is attested. In sum, the grounds to assume *a/ai* as an extant verbal ablaut type in Luwian are weak.

At first glance, the *a/ai*-verbs are formally strikingly similar to the *i/ei*-verbs (one vowel stem formant in the singular, diphthong with an /i/ in the plural). For this reason, attempts to explain the class have generally involved this parallelism.

The apparent *communis opinio* is again given in Melchert 1997. The verbs are similar in origin to *i/ei*-verbs because they are to a large extent built with the same suffix, denominative **-ié/ó-*, with secondary accent retraction to yield the lenited endings. However, for these verbs the suffix is preceded by the nominal suffix **-eh$_2$-* rather than

[128] This formation would as such be highly comparable to *kumaza-* 'priest' (*-z-* suffix with stem formant in *-a-* due to animate (vel sim.) semantics, also referred to as a 'professional suffix', see Laroche 1979, p. 98). Hajnal (1995, p. 153) also assumes a denominative origin for this verb.

[129] Evidence here is strictly defined as verbs which have both a singular and a plural form where the apophony is directly observable. In CLL, it seems to be assumed that a leniting *a*-stem belongs to the ablauting *a/ai*-class. E.g. see the entry for the hapax verb form CLuw. ⟨za-az-za-ra-a-ta⟩, which is given as belonging to the verb stem *zazzarāi-* (p. 282). Yet, there is no direct evidence for such a stem in the data.

[130] The examples given by Oettinger (1979b, pp. 568f) are not valid. They are in fact *i/ai*-ablauting verbs.

[131] Some relationship to CLuw. *aru-* 'high' seems likely.

*-*e*-, making the type cognate to the Hittite *tāye/a*-class (EDHIL, pp. 134f). Thus, in the singular we have the development (virtual) PIE *-*eh₂-i̯é-ti* > *-*ā́-i̯e-di* > *-*ā́-i̯i-di* > *-*ā́i̯-di* > PL *-*ā́di*. In the plural we have a development similar to the *i/ei*-type as proposed by Melchert, where the inherited */o/ of the suffix is deleted by post-tonic syncope, i.e. PIE **eh₂-i̯ó-nti* > *-*ā́-i̯o-nti* > PL *-*āi-nti* > Lyc. *-aiti*.

Since Proto-Luwic post-tonic syncope is not accepted in this thesis, the scenario presented above is unacceptable. However, the *ié/ó*-type need not *necessarily* be ruled out as a possible input type. In section 5.1.4, cognacy is established between Lyc. *m̃ma*(*i*)-^{di} and HLuw. *tama*-^{ri}, both meaning 'to build'. The HLuw. verb has a 3PL.PRET.A form *tama*(*n*)*ta* ⟨ta-ma-ta⟩. Incidentally, a plural stem formant *-a-* for the plural is plausibly expected by sound law from a *eh₂-ié/ó*-denominative: PIE *-*eh₂-ió-* > *-*ā-iə-* > *-*āə-* (loss of intervocalic *-i-*) > Luw. *-ā-*. The outcome of a PL sequence *-āə* in Lycian is uncertain, but *-ai-* seems unlikely. Thus, if the verbs are cognate and the input type is *eh₂-ié/ó*-denominatives (as suggested by Melchert), the Lycian plural stem formant ought to be an innovation. Analogical innovation as the genesis of the *a/ai*-stem is tentatively substantiated by the proposed etymology of *muna*(*i*)-^{di}, for which see section 6.1.3.

Possibilities aside, the *eh₂-ié/ó*-type as the input for the *a/ai*-ablauting is not a pressing conclusion. Rather, it should be viewed as highly tentative. Firstly, note that for *eh₂-ié/ó*-denominatives to be considered a valid input type, we must reckon with a development **āiC* > Lyc. /a/ in the singular.[132] Moreover, the lenition cannot be PA, since the Hittite *tāye*-type requires the accent on the **ié/ó*-suffix (EDHIL, pp. 134f). Presumably the lenited endings are taken over from the formally reminiscient denominatives in *-*əi̯i-/-əiə-*^{di}, but the exact workings of this process are unclear.[133] Lastly, there is to my knowledge no direct comparative evidence of a PIE *eh₂-ié/ó*-type being reflected as a Lycian *a/ai*-ablauting stem. Cf. e.g. section 5.1.4, where it is concluded that PIE **dm-éh₂*- is in fact a more likely input stem for Lyc. *m̃ma*(*i*)-^{di} and HLuw. *tama*-^{ri}.

How then would the Lycian stem formant *-ai-* be innovated? Given the inability to explain the cognate set CLuw. *āyanta* ≈ Lyc. *aite*[134] by any of the scenarios above, Hajnal (1995, pp. 152-156) analyses the *a/ai*-ablaut (at least partly) as an innovation. In this model, the monophthong/diphthong pattern of the *i/ei*-verbs is superimposed on verbs with a stem final accentuated long vowel and lenited endings in Pre-Lycian, crucially

[132] There are to my knowledge no secure counterexamples to such a postulation. Cf. also the PL *a*-stem DAT/LOC.SG ending *-*a* (Luw. *-a* and Lyc. *-a*), potentially from *-*āi* (thus also in a handout of Melchert in 2018 for a talk I did not attend).

[133] According to Melchert in a handout of a talk I was not able to personally attend, it is suggested that the original accent of PIE **eh₂-ie/o*-paradigms was on the morpheme *-*éh₂*-, which would remove the need for analogy. However, *non liquet*.

[134] This is the only occurance of a correspondence Luw. *aya-* ≈ Lyc. *ai-* in the stem formant.

after Luwic syncope. See figure 3 for Hajnal's proposed four part analogy.

Figure 3: Four-part analogy innovating the *a/ai-type per Hajnal.

*-*ítdi*	*-*ắdi*
*-*éinti*	X

X = *-*ắinti*

First of all, it should be noted that the four-part analogy given in figure 3 is not perfect. A pure formal matching which would yield *-*ắinti* would require stem final *-*é-* in the singular. As it stands, the expected value of X in figure 3 would be **-*éanti*. Although not necessarily damning, this is a weak point of Hajnal's scenario.

Furthermore, Hajnal suggests that in Lycian "ergibt sich [...] eine synchron beachtete Regel, wonach lenierte Endung /-di/ der 3.Pers.Sg.Präs. einen diphthongischen Pluralstamm erfordert." (1995, p. 156). This is demonstrably invalid, given clear counterexamples such as 3SG.PRES.A *tadi* vs. 3PL.PRES.A *tãti* from *ta-* 'to put'.

There is still potential in Hajnal's scenario, however, provided a few revisions are made. First, rather than viewing the creation of plural diphthongal stems to leniting verbs as a general tendency of the language, it could be postulated as salient property of denominal verbs. Recall section 3.3.5, where it was suggested that the Lycian 3PL endings of diphthongal verbs (*i/ei* and *a/ai*-types) could be synchronically segmented as *-itV* rather than as *-tV*, a form otherwise identical to the unlenited ending of the 3SG. If this segmentation is valid, a formal matching could have been performed by the speakers of Lycian between 3PL endings in *-itV* and denomination, originating in the older denominating *i/ei*-verbs with their corresponding nouns. In such a scenario, *a/ai*-ablaut is completely regular to *a*-stem nouns, as *i/ei*-ablaut is to *i*-mutating nouns (the /e/ in the suffix matched to the oblique forms of corresponding nouns).[135]

Beyond the Hajnal's analogical scenario from *i/ei*-ablauting stems, it is certainly possible that some analogical pressure was exerted by $a(i)$-^{di} 'to do, make'. This verb would provide a base for the formal characteristics of the new denominal stems, irrespective of its separate origin (see section 6.1.1). A further step would be to postulate univerbation with a noun and the verb $a(i)$-^{di} as a possible origin of the verb type. See section 6.1.7 on the verb *xtta*(i)-^{di} for possible indications of the viability of this analysis.

In sum, the *a/ai* has been shown to be uniquely Lycian. It is moreover possible that this type is corresponded by leniting *a*-stem verbs in Luwian, and the claim that these types go back to eh_2-*ié/ó*-denominatives (Hitt. *tāye*-type) is admitted as a possibility, but not a

[135]Note that this scenario can also be back-projected to Proto-Luwic, if one believes in the existence of *a/ai*-ablauting verbs in Luwian.

likelyhood. The Lycian type would in either case have innovated apophony in the stem formant. This apophony could be innovated on the basis of the likewise denominative *i/ei*-stems or on the basis of *a(i)-^{di}* 'to do, make', or perhaps both. The general lack of clarity renders it unlikely that the last word on the etymology of the Lycian *a/ai*-type has been written.

The following verbs belong to the *a/ai*-ablauting class: *a(i)-^{di}*, *maza(i)-^{di}*, *muna(i)-^{di}*, *m̃ma(i)-^{di}*, *xba(i)-^{di}*, *xla(i)-^{di}*, *xtta(i)-^{di}*.

4.2.2 The leniting *a*-stem class (*-a-^{di}*)

Leniting *a*-stems take a stem formant in *-a-* consistently take lenited endings. E.g. 3SG.PRES.A *tadi* from the verb *(t)ta-^{di}*. It is a fairly small class of verbs, represented only by 3-4 prehistorical roots.[136]

The two secure etymologies belonging to this class are *(t)ta-^{di}* 'to put' and *(h)ha-^{di}* 'to release', going back to the PIE root formations **d^{h}(é)h$_1$-* and **s(é)h$_{1/2}$* - respectively, e.g. Lyc. *tadi* < PIE **d^{h}éh$_1$-ti*, cf. Hitt. *tezzi* '(s)he speaks' with semantic shift (see individual sections 6.2.4 and 6.2.3 for etymological discussions).[137] The stem formant *-a-* thus regularly goes back to PA **æ* < PIE **-eh$_1$-*. Lenition is expected after a long accented vowel reflecting PIE **-eh$_{1/2}$*. No other etymologically secure verbs belong to this small class. Consequently, PIE athematic root formations to roots ending in */h$_1$/ or */h$_2$/ is the only knowable input giving leniting *a*-stems in Lycian.

Note that plurals of leniting *a*-stems, e.g. *hãti* 'they let go', also take a stem formant in *-a-*. Contrary to some previous accounts[138], no analogy is required to explain this; the PIE sequence **-enT-* gives **-anT-* already in PA.[139]

The leniting *a*-stem class is also present in Luwian. Cf. e.g. Luw. *manā-* 'to see, experience', with 3SG.PRES.A CLuw. ⟨ma-na-a-ti⟩.[140]

By the same logic as for the leniting *i*-stems (see section 4.1.2), a leniting *a*-stem with no attested plurals could in principle be an *a/ai*-ablauting stem. There is only one such

[136] Both *erida-^{di}* and *alaha-^{di}* likely originate in univerbated formations, i.e. from *a(i)-^{di}* and *(h)ha-^{di}* respectively.

[137] The so called *tezzi*-principle (for which see Malzahn 2010, pp. 267f) and the relationship between the Anatolian root formations and the Indo-European root aorist will not be discussed in this thesis on account of space.

[138] E.g. pace Morpurgo-Davies 1987, p. 227.

[139] See footnote 113 and section 6.5.1.

[140] The etymology in PIE **mn-éh$_2$-ti* (Melchert, 1988, p. 219) shows that, contrary to some accounts (e.g. AHP, p. 69), the sequence *-*éh$_2$C-* causes lenition in the consonant.

verb in this class: *erida-*^{di}.[141]

The following verbs belong to the leniting *a*-stem class: *alaha-*^{di}, *erida-*^{di}, *(h)ha-*^{di}, *(t)ta-*^{di}, *xttba-*^{di}.

4.2.3 The unleniting *a*-stem class (*-a-*^{ti})

Verbs belonging to the unleniting *a*-stems have *-a-* as their stem formant and take unlenited endings. E.g. 3SG.PRES.A *sñmati* from the verb *sñma-*^{ti}. It is the largest verb class in Lycian with regards to number of unique verbs.

The unleniting *a*-stem class consists at least partly of denominative formations, e.g. the extremely frequent *prñnewa-*^{ti} 'to build' from *prñnawa-* 'building' and *kumaza-*^{ti} 'to perform a sacrifice' from *kumaza-* 'priest' (with nominal suffix *-za*, cf. footnote 128). As such, they consist simply of the stem of the noun, converted into a verb by means of adding the most productive type of verbal endings known to the language (unlenited *mi*-conjugation).

There is good reason to believe that this strategy for denomination was dominant for *a*-stem nouns at the time when Lycian was committed to writing. The most illustrative example is *xssaϑrapaza-*^{ti} 'to rule as a satrap'. The root *xssaϑrapa-* is clearly borrowed from an Iranian source (cf. OP *xšaçapāvan* < **xšaϑrapāvan*, cf. Laroche 1979, p. 99).[142] Consequently, the base lexeme can only realistically have entered the Lycian language after the expansion of the Achaemenid empire into Turkey, and is thus very recent. The dominance of the unleniting *a*-stems in the realm of denomination is possibly further supported by the sheer size of the class, containing more than double the amount of verbs than the possibly competing *a/ai*-ablauting class.[143]

The chronological distribution of unleniting *a*-stems is glanceable in the comparison between the two denominative verbs *kumez(e)i-*^{di} and *kumaza-*^{ti} of similar meaning. The *i/ei*-ablauting verb is clearly older, since it must be denominal to an *i*-mutating noun **kumeze/i-* or deadjectival to *kumezi(je)-* 'sacred', which in attested Lycian has already acted as base for an *a*-stem *kumaza-* 'priest'. It is known that the *a*-stem nominal class was very productive in Lycian, especially to animate nouns (cf. Hajnal 1994, p. 162). As such, the verb *kumaza-*^{ti} was likely formed at a later date than *kumez(e)i-*^{di}.[144]

[141] If *erida-*^{di} even is a verb, it likely belongs to *a(i)-*^{di} 'to do, make'. See section 6.2.2.

[142] The suffix *-za-* is expected for titles and professions (cf. footnote 128), pace Starke(1990, p. 102[261]), who analyses *-(a)za-* as a denominal suffix, rejecting an analysis as a nominal morpheme for this particular verb. In my view, there is no obvious reason for this.

[143] It cannot strictly speaking be excluded that this is an accident of attestation, however.

[144] Presumably a new verb was derived to express some semantic notion not covered by the original verb.

Sasseville (2015) has convincingly argued that conversion of *a*-stem nouns to verbs was (at least) a Proto-Anatolian process, and the original derivational process underlying the *ahh*-factitive class in Hittite.[145] As such, Hittite deviates from Luwic in having extended the metaanalysed suffix *-ahh-* as a de facto factitive suffix. Consequently, the restriction of unleniting *a*-stems as denominative to nominal *a*-stems is to be considered an archaism in (at least) Lycian.

The following verbs belong to the unleniting *a*-stem class: *asa-^{ti}*, *hãxxa-^{ti}*, *hijãna-^{ti}* (![146]), *hrmaza-^{ti}*, *kumaza-^{ti}*, *la-^{ti}*, *ma-^{ti}*, *pabra-^{ti}*, *pema-^{ti}* (![147]), *prñnawa-^{ti}*, *qñta-^{ti}*, *sñma-^{ti}*, *stta-^{ti}*, *xba-^{ti}*, *xñta-^{ti}*, *xñtawa-^{ti}*, *xssaϑrapaza-^{ti}*, *xuwa-^{ti}*, *zala-^{ti}*.

4.2.4 The geminating *a*-stem class (*-a-^{tti}*)

The geminating *a*-stem class is characterised by taking endings with a geminated consonant, i.e. *-tte* (cf. section 3.3.7). Moreover, it takes a stem formant in *-a-*.[148]

Only two verbs belong to this class: *epa-^{tti}* and *tija-^{tti}*, both of which are hapax legomena. As such, the possible input(s) reflected as geminating stems in Lycian depends solely on the etymologies for these two verbs. The geminated *a*-stem ending is only attested in its preterite form, i.e. *-tte*.

There seem to be three possible scenarios to account for the geminated ending:

1. The first possibility is to simply disregard that the geminate spelling has any bearing on the interpretation of the form. As such it is simply viewed as a spelling convention/error. Cf. DLL, p. 14.

2. The ending *-tte* can be analysed as an original finite verb form *tade* 'he put' from the verb *(t)ta-^{di}*. An analysis of *epatte* and *epenẽtijatte* as unverbated forms is thus implied. This is the analysis of Hajnal 1995, pp. 184f.

3. According to Serangeli (2018b, pp. 145ff), the ending *-tte* can be analysed as an original 3SG.PRET.M ending, a conjugational form not found elsewhere in Lycian. Thus *-tte* would originate in an ending **-tVdə*[149], for which cf. Hitt. ⟨ap-pa-at-ta-at⟩

Perhaps it is of relevance that *kumez(e)i-^{di}* is attested in transitive contexts whereas *kumaza-^{ti}* is seemingly intransitive.

[145] Contrary to the previously accepted derivation by Oettinger (1979b, p. 240, 455)CHECK, by which Hitt. *ahh*-factitives are derived from thematic adjectives with an added morpheme **-eh$_2$-*.

[146] Not actually a verb. See section 6.3.3.

[147] Actually wrongly segmented *ma-^{ti}*. Not a verb. See section 6.3.7

[148] Note that there are no geminating stems with a stem formant other than *-a-*.

[149] For the lenited consonant, cf. 1SG.PRET.M ending *-xaga* and Eichner's second lenition rule (cf. section 3.1).

'he seized'. As such, *epatte* would belong to the verb *app-* 'to seize' and *epenẽtijatte* to *i(je)-^{e}* 'to buy' (univerbated with *epenẽti* 'back', meaning 'buy back').

On the basis of the primary principle to analyse the Lycian material on its own terms, scenario 1 is to be disregarded unless absolutely necessary. If a geminate is written, we should, all things being equal, assume that it reflects some linguistic reality and thus has some synchronic or diachronic motivation. The decision thus first and foremost lies between scenario 2 and 3.

Both scenarios presume syncope between the two dental consonants, for which there is precedent.[150] Furthermore, they both assume progressive assimilation in the cluster **-td-*, which would in that case contrast with some word initial regressive assimilations, e.g. *ddewe-* < **didewe-* (Hajnal, 1995, p. 186).[151]

In this thesis, scenario 2 is tentatively given most credence. This based on it being riddled with fewer direct issues than scenario 3, to be outlined below.

Firstly, the final *-e* in the ending *-tte* does not directly agree etymologically with Hitt. *-ttat(i)*. This contrasts with the "reduplicated" middle ending found in the 1SG.PRET, for which both languages display vowel on the second syllable, i.e. Lyc. *-xaga* : Hitt. *-hhahari*. One would thus have to assume analogical development in either branch. Furthermore, there is to my knowledge no other good Luwic evidence licensing the reconstruction of a PL 3SG.PRET.M ending **-tVdə*.[152] The Hittite evidence rather indicates that the Lycian 3SG.PRET.M would have the shape **-te(t)* (vel sim.).

It is unclear how *epatte* and *epenẽtijatte* can be 3SG.PRET.M forms of *app-* and *i(je)-^{e}* respectively. Specifically, the /a/ immediately preceding the ending is problematic. Given that it violates *i/e*-umlaut the *a*-timbre must be original in both cases, which implies the presence of */h_2/. There is no clear source for such a sequence; the Hittite ending begins with /t/.[153] Consequently, *epatte* and *epenẽtijatte* must be separated from *app-* and *i(je)-^{e}*. In scenario 2, conversely, the *-a-* element is easily explained as the stem formant of a nominal *a*-stem.

The etymologies of the verbs *epa-^{tti}* and *epenẽtija-^{tti}*, operating with the favoured sce-

[150] Cf. van de Kasteelen 2015, p. 33.

[151] Note, however, that progressive assimilation is also attested, word initially, e.g. GEN-ADJ *ttaraha* 'of the city' from *tetere/i-* 'city'. The pronominal forms *tdi* and *tdike* are not relevant, since the *t-* goes back to */k^w/.

[152] The HLuw. attestation of a 3SG.PRET.M of the verb *izi-* 'to do; venerate' ⟨i-zi-i-tà-ta⟩ on KIRCOGLU §3 is ambiguous as to whether it represents /it^{s}itat/ or /it^{s}itata/. The Lydian (probable) middle forms *ẽnšarptat* (LW10,7) and *fẽtwintat* (LW12,4) are not probative with regards to the existence of a final vowel on account of general Lydian apocope.

[153] Note that the second /a/ in Hitt. *appattat* is a ghost vowel. The spelling ⟨ap-pa-at-ta-at⟩ (KBo II.2 ii 42) actually represents /apːtːat/, where the vowel is an artifact of the inability of the writing system to express two successive geminates. Cf. isofunctional ⟨e-ep-ta-at⟩ (KUB LII.83 i 5).

nario of Hajnal, are given in sections 6.4.1 and 6.4.2 respectively.

4.2.5 The nasalised *ã*-stem class (*-ã-^{ti}*)

Only one Lycian verb qualifies as a nasalised *ã*-stem, i.e. *qã-^{ti}* 'to punish (vel sim.)' (section 6.5.1). A separate class is justified by the difference in stem formant, Lycian /ã/ synchronically being a phoneme separate from /a/ in most positions.[154] However, the validity of the class depends on the reading of *qãti* on TL89,3 as either 3SG.PRES.A or 3PL.PRES.A; if read as a plural form, then the class is strictly speaking unjustified, since a nasalised vowel is expected for an ordinary *a*-stem in the plural (e.g. *sttãti* to *stta-^{ti}* 'to stand, be placed, section 6.3.12).

Lyc. *qã-^{ti}* reflects a root formation PIE *g^{wh}(é)n- (see section 6.5.1 for exact etymology), and thus the input for the nasalised *ã*-stem class is PIE root formations to roots ending in a nasal. It is thereby certainly conceivable that this class contained more members which are not attested.

4.3 *e*-stems

Forms belonging to the following subclasses all take a stem formant *-e-*.

4.3.1 The leniting *e*-stem class (*-e-^{di}*)

The leniting *e*-stems take a stem formant in *-e-* and lenited endings. E.g. 3SG.PRET.A *tubede* from *tube-*. It is a very small class, represented by only 3-4 verbs.[155]

In section 4.1.1, it was stated that the *i/ei*-ablauting verbs stem from the same proto-classes as the leniting *e*-stems, i.e. the PIE *CoC-éie/o*-type and the *o-ié/ó*-denominatives (Hitt. *hatrae*-type).[156] The difference between the two is that the Pre-PL plural stem formant **-ə-* was generalised instead of that of the singular **-əi-*. This yielded the PL input 3SG *-ədi* : 3PL *-ənti*, a leniting *ə*-stem class (*-ə-^{di}*). With such an input type we regularly get the Lycian leniting *e*-stem class. The expected Luwian outcome is a leniting *a*-stem, an example of which is CLuw. *pūwā-*, see section 7.3.4.

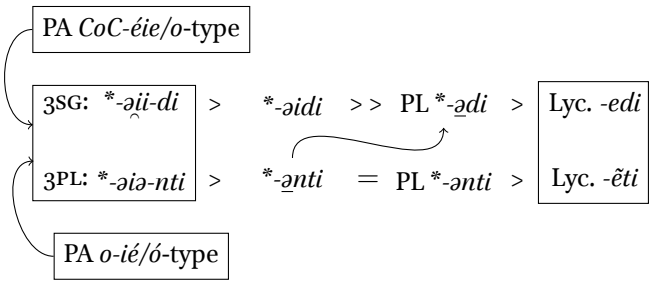
The scenario outlined above is schematised in figure 4.

[154] Before nasals, there is some vaccillation between spelling with a nasal and non-nasal vowel, cf. e.g. the enclitic pronoun *=ene/=ẽne*, indicating an archiphonemic relationship between the two vowels in this particular position. Otherwise, the difference is phonemic, e.g. in differentiating between *a*-stems in the NOM.SG (*-a*) and the ACC.SG (*-ã*).

[155] The tally is 4 with *nele-*, 3 without. This is an insecure verb only attested on the Xanthos stele. See section 7.1.2.

[156] Already Melchert (1997, pp. 136f) hypothesised that the Lycian leniting *e*-stem class originated in the *o-ié/ó*-type.

Figure 4: The genesis of the Lycian leniting *e*-stem class



By enabling input in the *CoC-éie/o*-type and comparison to Hittie *hatrae*-class verbs, the scenario outlined above results in new explanations for the following verbs: *eruwe-*^{ti}, *hm̃me-*, (*p*)*puwe-*^{ti}, *ze-*^{di}, *tube-*^{di} *ddeze-*^{di}, *nele-*^{di}. Especially the case of (*p*)*puwe-*^{ti} 'to write'[157] is noteworthy, since previous accounts have not managed to explain all attested Anatolian material.

The following verbs belong to the leniting *e*-stem class: *ddeze-*^{di}, *nele-*^{di}, *tube-*^{di}, *ze-*^{di}.

4.3.2 The unleniting *e*-stem class (*-e-*^{ti})

The verbs belonging to the unleniting *e*-stem class consistently take a stem formant *-e-* and unlenited endings. E.g. 3SG.PRET.A *tebete* from the verb *tebe-*^{ti}.

As has been mentioned in earlier sections (3.3.2 and 4.1.4), Lycian has created new paradigms on the basis of the 3SG.PRES.A form of originally *hi*-conjugated verbs. This is in fact the regular tendency of the language for inherited *hi*-verbs.[158] This tendency could tentatively be postulated for Luwic, since there are some possible traces in Luwian,[159] but is certainly more regular and widespread in Lycian. The process is explainable by an ongoing loss of salience in the 3SG.PRES.A ending *-e* (PL *-*ə*)—an un-

[157] The lack of lenition is secondary.

[158] Renewal of verbal paradigms on the basis of an already conjugated form, specifically the 3SG.PRES, is in fact a typologically rather common occurance. Cf. the Modern Persian paradigm of the verb 'to be', rebuilt on the 3SG.PRES form *hast*, e.g. 1SG.PRES *hastam*. Independently, we find the exact same process in the Polish *być* 'to be', with the inherited 3SG.PRES.IND *jest*, but innovated 1SG.PRES.IND *jestem* with the regular ending *-em* attached to the conjugated 3SG.PRES.IND form.

[159] Cf. e.g. the paradigm of Luw. *pi̯ya-*, with seemingly renewed 1SG.PRET.A HLuw. *pi̯yaha* ⟨pi-ia-ha⟩ instead of expected ***pi̯ha* < **h₁p-ói-h₂e* among other forms. However, it is not impossible that the spread occured from the plural in Luwian, where the stem *pi̯ya-* in e.g. 3PL.IPV.A HLuw. *pi̯ya*(*n*)*tu* ⟨pi-ia-tu⟩ is regular from **h₁p-i-éntu*. To determine the model is impossible due to the merger of PL */ə/ and */a/ to Luwian /a/.

surprising phenomenon given that the otherwise characterising final *-i* is lost already in Proto-Anatolian times (see section 3.3.3). In fact, Luwian, Hittite, and Lycian all deal with this issue in different ways, further indicating that this was something perceived as problematic by speakers of Anatolian. Hittite generalises *-i*, Luwian adds a characterising *-i* to the ending (cf. the history of the Luwian 1SG.PRES.A ending *-wi*, see section 3.3.1), and Lycian adds a regular unlenited ending *-ti*, the dominant 3SG.PRES.A ending of the language, and creates entirely new paradigms.[160] Given that the endings are unleniting and the original 3SG.PRES.A ending of the *hi*-conjugation is *-e*, the result is unleniting *e*-stems. It should be noted, however, that the ending *-e* must have had at least some salience,[161] since it is actually found in the Lycian corpus (although marginally).

Notably, all Lycian unleniting *e*-stems with good Anatolian comparanda are *hi*-conjugated in Luwian and/or Hittite.[162] For two verbs (*i*(*je*)-^{e} and *ub*(*e*)-^{e}), we have a reformed Lycian preterite form next to an original Lycian *hi*-conjugated form.[163] The evidence is the following:

1. Lyc. *tebe-*^{ti} 'conquer (vel sim.)', 3SG.PRET.A *tebete*. Cf. HLuw. *tapai* ⟨(*261)ta-pa-i⟩ (KARKAMIŠ A2+3 §13) of military meaning. Cf. also Hitt. *istāp-*^{hi}*/istapp-* 'to prop up', but also 'to besiege'. See individual entry in seciton 7.2.3 for reconstruction. Crucially not Lyc. 3SG.PRET.A ***teptte*.

2. Lyc. *pije-*^{ti} 'to give', paradigm reformed with 3SG.PRES.A **pije* as base (i.e. PL **piə*): 3SG.PRET.A *pijete*, 3PL.PRET.A *pijẽte*, 1SG.PRET.A *pijaxa*.[164] Cf. *hi*-conjugating Luw. *piya-*, 3SG.PRES.A *piyai*. Cf. also Hitt. *pāi-*^{i}*/pi-*. See section 7.2.6 for reconstruction. In the reduplicated sister verb, the 3PL.PRES.A has the analogical form *pibiti*, see

[160]The fact that original *hi*-verbs often end up as *mi*-conjugating verbs in Lycian has been known since long. However, the exact formal process by which this occurs has to my knowledge not been explicitly stated. It is occassionally called "thematisation" (cf. e.g. Serangeli 2018b, p. 203). This is a misnomer, since the process has nothing to do with Indo-European thematic verbs or any thematic vowels whatsoever. Note also that the 3PL ending cannot be the locus of the new stem formant *-e-*, as has been suggested elsewhere; in e.g. *pije-*^{ti}, the plural would have the vowel **-a-* (i.e. ending **-antV*) due to the sound law PA **-enT-* > PL **-enT-* (cf. footnote 113).

[161]It cannot be excluded that the Lycians themselves also perceived the ending *-e* as archaic, and as such used forms that had already been levelled in their colloquial speech (e.g. spoken *erijeti*, but written *erije*). This would be understandable, given the presumably high register used for monumental inscription. However, this is naturally mere speculation, and in either case we do in fact find the ending *-e* as a real morpheme in *some* register of the language.

[162]A seemingly problematic verb Lyc. (*p*)*puwe-*^{ti}. The root of discord is the cognate verb CLuw. *pūwā-*, which is not *hi*-conjugating in Luwian but rather a leniting *a*-stem. See individual entry in section 7.3.4 for detailed discussion and motivation for not regarding it as an issue; the stem is originally leniting.

[163]These are not stritly speaking unleniting *e*-stems, and are instead classified as *hi*-conjugating C-stems/*i*-stems, for which see sections 4.5.4 and 4.1.5.

[164]Possibly likewise in HLuw. Cf. 3PL.PRES.A ⟨pi-ia-ti⟩. See footnote 159

section 4.1.4. This shows that the reforming of the stem is anterior to the addition of an unleniting ending in the 3SG.PRES.A (as do *i*(*je*)-^{e} and *ub*(*e*)-^{e}).

3. Lyc. *mm̃*(*e*)*ije*-^{ti} 'to establish (vel sim.)', only attested in the 3SG.PRES.A, once as *m̃meijeti* and once as *m̃mijeti*. Despite the puzzling *e*-vacillation, Lyc. *m̃mijeti* is likely cognate to the Vedic perfect *mimāya* '(s)he has established', reflecting a *hi*-conjugating root formation **m*(*ó*)*i*-. See section 5.1.4 for the full discussion.

4. Lyc. *ꙋwe*-^{ti} 'to place (upright)', reformed 3SG.PRES.A *ꙋweti*, 3PL.PRES.A *ꙋwẽti*, 1SG.PRET.A *ꙋwaxa*. Cf. HLuw. *ꙋwa*- with 3SG.PRES.A *ꙋwai*. If radically cognate, cf. Hitt. *dāi*-^{i}*/tiya*-. Verbs with stem final *-ꙋwe-* are treated in detail in section 4.3.3.

5. Lyc. *i*(*je*)-^{e} 'to buy', taking a *hi*-conjugating 3SG.PRES.A form, but 3SG.PRET.A *ijetẽ*, not ***ite*. Cf. crucially *erije* vs. *erite*, section 4.1.5. Thus, *ijetẽ* is clearly a secondary form of a reformed paradigm.

6. Lyc. *ub*(*e*)-^{e} 'to offer (vel sim.)', functioning like *i*(*je*)-^{e} with a 3SG.PRES.A in *ube* (44c,13) and 3SG.PRET.A *ubete*. Cf. also HLuw. *upai* ⟨(PES)u-pa-i⟩ (IZGIN 2 D §17). Crucially not Lyc. ***uptte*.[165]

Conclusively, the only source of unleniting *e*-stems that can be rigorously established is inherited *hi*-conjugating verbs. This begs the question whether the remaining verbs can be analysed as such too.

For a lack of cognates, there are seemingly no comparative restrictions for a hypothetical origin in a *hi*-conjugating verb for *zbe*-^{ti}.

For the verb *trbbe*-^{ti} '?' (military context), there may be cognates in non-*hi*-conjugating Luw. *tarpā*- of obscure meaning. If cognate, the stem formation is problematic, since *tarpā*- is leniting, which does not match the unlenited ending in Lycian. See section 5.1.5 for an in depth discussion of the word family. It remains uncertain whether or not Lyc. *trbbe*- invalidates the generalisation that the inherited Lycian unleniting *e*-stems originate from previously *hi*-conjugating verbs. In section 5.1.5, the tentative conclusion is drawn that the lack of lenition in Lycian is secondary. If true, this would enable the establishment of originally *hi*-conjugating stems as the only historical input for Lycian unleniting *e*-stems.

Verbs with the stem final sequence *-ꙋwe-* are treated separately in the following section. Aside from these, the following verbs belong to the unleniting *e*-stem class: *epirije*-^{ti},

[165] Reformation of paradigm may be traced back to PL on account of 3SG.PRET.A CLuw. *ú-pa-at-ta* (KUB XXXV.88 iii 11). Thus PL **ūb-ə-te* « **ūptə* (« **ūps*) on basis of regular **ub-ə*, presupposing that the middle vowel in CLuw. is not a ghost vowel.

m̃m(*e*)*ije*-^{ti}, *tebe*-^{ti}, *trbbe*-^{ti}, *zbe*-^{ti}, *pije*-^{ti}. Note that *m̃m*(*e*)*ije*-^{ti} and *epirije*-^{ti}, due to a lack of attested 3PL forms, could technically be a *ije/i*-ablauting stem.

4.3.3 The *ɯwe*-stem class (*-ɯwe*-^{ti})

The verbs classified as beloning to the *ɯwe*-class all take a stem formant *-ɯwe-* and unlenited endings. E.g. 3SG.PRES.A *tɯweti* from *tɯwe*-^{ti}. As such, they are strictly speaking to be subsumed under unleniting *e*-stems. Justification as a separate type comes from the observation that they might have inner-Lycian radical cognates (cf. e.g. possibly *eruwe*-^{ti} vs. *eri*(*jei*)-^{e}), indicating some derivational relationship, and since non-lenition seems to be analogically pervasive in the group (cf. e.g. the etymology of (*p*)*puwe*-^{ti}). There are only 4 secured *ɯwe*-verbs in Lycian: *eruwe*-^{ti} 'to exalt/prostrate oneself', *qanuwe*-^{ti} 'to destroy', *tuwe*-^{ti} 'to place', (*p*)*puwe*-^{ti} 'to write'.

Notably, there is only one good cognate of a Lycian *ɯwe*-verb in Luwic: HLuw. *tu*(*wa*)- with 3SG.PRES.A *tuwai* ≈ Lyc. *tuwe*-^{ti} with 3SG.PRES.A *tuweti* 'to place'. The HLuw. form proves an original *hi*-conjugation, the *hi*-conjugation being moribund in Luwic and thus not eligible for analogical spread. Conclusively, the cognate set licenses the 3SG.PRES.A PL reconstruction **tuə* '(s)he places'.

Luwian *tɯwa-* is generally connected with either PIE **d^{h}eh$_{1}$-* 'to put' or **(s)teh$_{2}$-* 'to stand', with no possibility to choose either over the other on purely formal grounds.[166] In either case, it is evident that the *u*-element is unlikely to be part of the verbal root. Consequently it must be analysed as some sort of bound morpheme.

Oettinger (1979b, p. 483) suggests that the element *-u-* is generalised from the Pre-PL 1PL.PRES.A form **tuəni*.[167] This is unlikely, partly on account of the 1PL being a generally unlikely model for levelling, and partly since there is no particular reason why a prehistoric speaker would confuse the end of the stem and beginning of the ending.

One option would be to connect it to the PIE *ué/ó*-type, e.g. Skt. *jī́vati*, Lat. *uiuō* < PIE **g^{w}ih$_{3}$-ué/ó-* 'to live'. However, a direct derivation from this type is unlikely, since thematic conjugations are *mi*-conjugating in Anatolian (e.g. *ié/ó*-verbs).

Explaining the *-u-* PL **tuə* by referring to the root extension *-u-* found in Hitt. *tarhu*-^{mi} 'to overpower' (< PIE **terh$_{2}$-u-*)[168] and *lāhu*-^{hi}/*lahu-* 'to pour' (< **lóh$_{2}$-u-*)[169] does not solve much. The notion of *root extension* remains enigmatic in the field, and is thus not a desirable explanation *per se* for any phenomenon. It is virtually always methodologically preferable to establish morphologically predictable types.

[166] Possibly **(s)teh$_{2}$-* is to be preferred, given the specialized meaning concerning the erection of monuments.

[167] Or in Oettinger's notation: **duu̯ani*.

[168] Cf. Oettinger 1979b, p. 222; EDHIL, pp. 835f

[169] Cf. Oettinger 1979b, p. 424. Note that the **-u-* is analysed as part of the root, and not as a suffix, by Kloekhorst (EDHIL, pp. 511f).

As a starting point in finding an alternative solution, a striking formal parallel is to be found stems such as 'to give', where the *i*-element directly mirrors the *u*-element in **tuə*. Consider the (Pre-)PL forms of the PRES.A paradigm given below:[170]

3SG **piə*	:	3PL **pianti*
3SG **tuə*	:	3PL **tuanti*

Since we have already established that unleniting *e*-stems such as *pije-* derive from *hi*-verbs with an ablauting suffix *-(ó)i-*, the parallelism above invites postulation of an identical type with a suffix *-(ó)u-* instead of *-(ó)i-*. Below this possibility is explored.

A few CLuw. verbs may under this analysis belong to perfectly regular types, most notably *mammaluwai* ⟨ma-am-ma-lu-wa-i⟩ (KBo XXII.254 rs. 6) 'he crushes, breaks' < **mlh₂-óu-ei* (with reduplication)[171] and *luwanda* ⟨lu-wa-an-da⟩ (KUB XXXV.107 III 19) < 'they poured' **lH-u-énti*.[172] It is possible that *mumuwai* 'invigorates', *mūwai* 'overpowers', and *nahhuwai* 'is afraid' are to be subsumed under the same type.[173]

The aberrant 3SG.PRET.A form HLuw. *tuta* 'he placed'[174] can be explained as an archaic form reflecting (virtual) PIE **(s)th₂-óu-to*.[175] Cf. 3SG.PRET.A Lyc. *erite* to *eri(jei)* (see section 4.1.5). Note that the stem formant *-uwa-* is otherwise productive in Luwian.

The HLuw. verbs reflecting the *neu/nu*-suffixed type (cf. Hitt. *arnu-^{mi}* < PIE **h₃r-n(é)u-*), belonging to the *-nu(wa)*-type, have a very similar shape to other *u*-verbs such as *tu(wa)-*. There is no 3SG.PRES.A attested of a *nu(wa)*-verb, so it is not possible to determine whether the two types differed here (the expected reflex of a *néu/nu*-verb in the 3SG.PRES.A would end in *-nuti*). In either case, a merger would hardly be surprising, since the two classes would share stem formant and ending in all forms except for those of the present singular.[176] This would explain Lyc. *qanuweti* 'destroys' as being from original PIE **g^{wh}n-n(éu)-* with secondary assignment to the *uwe*-type (PL *uə*-type), cf. section 7.3.2.[177]

[170] Note that the **-a-* in the 3PL is reconstructed top-down (PIE **-enT-* > PA **-anT-*, cf. footnote 113).

[171] The previous account by Melchert (1988, p. 216) postulated a formation with a root extension *-u-*.

[172] Cf. Melchert 1988, pp. 217f. Again explained as *u*-extended form.

[173] Especially *nahhuwai* is interesting. The root is most likely the same as in Hitt. *nāh-^{hi}/nahh-* 'fears', but the formation remains puzzling. A direct descent from **nh₂-óu-ei* is in either case not possible phonologically.

[174] ⟨tu-ta⟩ (ERKİLET 1 §1), ⟨PONERE-u-ta⟩ (BOR §9).

[175] As suspected by Mittelberger (1964, p. 74): "[...] bei *tu(-wa)-* dürfte die Stammform ohne *-a-* die ältere sein."

[176] E.g. a 3PL.PRES.A ending in *-uanti* < PIE **-uénti-*, e.g. PL **H^{w}Nuánti* (< PIE **g^{wh}n-nu-énti*) vs. PL **tuánti* (PIE **sth₂-u-énti*).

[177] The expected reflex by regular sound developments would be a leniting *u*-stem: Lyc. *-udi* < PIE **néu-ti*.

An ablauting athematic *u*-suffixed type may be able to serve as the basis for the thematic *ué/ó*-type found elsewhere in Indo-European. Examples include the following:

- Ved. *jū́rvati* 'rubs' < **ǵrh₂-ué-ti* (LIV, p. 165).
- Ved. *jī́vati*, Lat. *uiuō* 'live(s)' < **gʷih₃-ué/ó-* (LIV, p. 215).
- Lat. *caluor* 'deceive' < **klh₁-uó-* (LIV, p. 349).
- Ved. *tū́rvati* 'overpowers' < **trh₂-ué-ti* (LIV, p. 633).[178]

Note especially the zero grade in the root, corresponding to an athematic suffigal type. The non-Anatolian Indo-European formation would thus be a secondarily thematicised *u*-stem, adding the thematic vowel onto the weak form of the stem (**CC-u-*). This would be subsumed under the general tendency of non-Anatolian Indo-European to form thematic verbs with a single thematic vowel.[179]

Under the present analysis, the *u*-extended verbs in Hittite, e.g. *tarhu-*^{mi} 'to overpower', are likely also secondary, formed to original *u*-verbs. Note interestingly that the Hittite 3SG.PRES.A form must be secondary on the basis of the plural stem.[180]

Finally, it must be stressed that the analysis presented above remains tentative. Hopefully, future research will be able to judge its plausibility. The null-hypothesis is that the Luwic *hi*-conjugating verbs stem from *u*-extended roots verbs (as in e.g. Melchert 1988).

4.4 *u*-stems

The *u*-stem is unified by the stem formant *-u-*. Only one verb of this class is attested in its finite form, so any leniting/unleniting dichotomy is descriptively superfluous for this class. The verb in question is *pu-*^{di} 'inscribe', which takes the 3SG.PRET.A form *pude*. Thus, we can make the descriptive statement that all *u*-stem verbs in Lycian are leniting, although the value of such a conclusion is limited. The other *u*-stem verb, *xz(z)u-* '?' is only attested in the infinitive.[181]

Given that we have only two verbs to operate with, etymologising the Lycian *u*-stems is difficult. Lyc. *xz(z)u-* has no well established meaning and no obvious cognates beyond

[178] The implication is that Hitt. *tarhu-*^{mi} is in some way connected, albeit with a different formation with a full grade in the root.

[179] As such, it is possible that the formation of these stems could constitute an argument for the Indo-Hittite hypothesis, by which Hittite was the first Indo-European language to split off from the rest.

[180] With the input form **térh₂u-ti* (root extension) the outcome would be Hitt. ***tarruzi*. Conversely, a reconstruction as an athematic *u*-stem **trh₂-óu-ei* would give Hitt. ***tarhaui*. Either form would be highly opaque and easily subject to analogical influence.

[181] Lyc. *mlu-* is problematic. See section 8.2.1.

Lycian. Conversely, Lyc. *pu-*^{di} has a possible cognate in HLuw. *pu-* 'write (?)'[182], attested only in the singular.[183] The word may thus be traceable back to PL with a stem **pu-*^{di}.[184]

The formal properties of PL **pu-*^{di} invite comparison to PL **puwə-*^{di} 'to write' (see section 7.3.4). The verbs may be radically cognate, where **puwə-*^{di} reflects a *o-ié/ó-*type denominative **ph₂u-o-ié/ó-* (cf. section 7.3.4) and **pu-*^{di} a root formation **ph₂(é)u-*. The Lycian 3PL.PRET.A form *puñtẽ* would in this case be secondary (replacing inherited **puwante* < **ph₂u-énto*), an at the very least unproblematic assumption given the nasal following the high vowel (if inherited, sequence **-uNC-* would give Lyc. *-uC-* by way of **-ũC* with denasalisation of high vowels). Lenition would be expected from Eichner's first lenition rule (cf. section 3.1). However, it remains unclear why two radically cognate verbs would both remain in use with no discernable difference in semantics.

This last point is addressed by Melchert (2016, pp. 206ff), who rather assigns the meaning 'to grasp, hold' to HLuw. *pu-*. There do not seem to be any obvious philological reasons to reject a similar meaning for Lyc. *pu-*^{di}, but likewise no clear positive arguments. As such, PL **pu-*^{di} would go back to a PIE root **peu(g)-*. This would dislodge Lyc. *pu-*^{di} from the 'to write'-family.

Provided that the (leniting) *u*-stem is an etymological class in Lycian, the path of least resistance seems to postulate the input as root formations with radical coda in */u/. The etymological input for the class, and whether or not it is an inherited class at all, remains on the tentative side.[185]

4.5 C-stems

The C-stems are characterised by taking a consonantal segment as their stem formant. This section further subdivides non-*hi*-conjugating C-stems into C-stems proper and *s*-stems, since the latter seem to form a coherent separate derivational class in Lycian. The copula verb *es-*^{i} is also assigned to its own class, being distinct from other *s*-stems in its ending allomorphy.

[182] Cf. e.g. the translation by Hawkins (CHLI^{1}, p. 481).

[183] I.e. 3SG.PRET.A ⟨pu-tà⟩ (x3), 3SG.IMP ⟨pu-tu⟩ (KARABURUN §13), 2SG.PRES.A ⟨⟨(VIA.PUGNUS)pu-si⟩ (MARAŞ 14 §9).

[184] Evidence for leniting endings is given only by Lycian. The Luwian evidence is ambiguous in this regard.

[185] The Luwian evidence for *u*-stems likewise very scanty. Very few *u*-stems that are not of the *-uwa-* or *-nu(wa)*-type are attested, e.g. the etymology-less CLuw. *nudu-* 'to desire'.

4.5.1 The C-stem proper class (-C-^{tti})

All proper C-stems take geminating unlenited endings,[186] as expected by regular Lycian developments (see section 3.3.2). This type of geminated ending must as such be separated from the one found in the geminating *a*-stems (section 4.2.4), where a vowel precedes the ending.

The verbs with etymologies in this class (*app-*, *xal-*^{tti}, *mar-*^{tti}) all point to an origin as root formations, e.g. *xalte* < (virtual) PIE *$*h_2$él-to*. There do not seem to be any compelling reason to not postulate PIE formations in *$*C$(é)C- as the primary input of Lycian proper C-stems.[187]

The following verbs belong to the non-*s*-stem, non *hi*-conjugating C-stem class: *app*, *mar-*^{tti}, *puh-*^{tti}, *xal-*^{tti}, *xul-*^{tti}.

4.5.2 The *s*-stem class (-*s*-^{tti})

All *s*-stems take a stem formant *-s-* and geminating unleniting endings. E.g. *xistte* from the verb *xis-*^{tti}. The *s*-stems are clearly derived from other verbs, as shown by pairs such as *xis-*^{tti} vs. *xi-*^{ti}. However, there is no discenable difference in meaning between the original and *s*-derived forms (Serangeli, 2018a, pp. 319f).[188]

Etymologically, the *s*-verbs are generally seen to stem from original iterative *sḱé/ó*-formations,[189] and with good reason. A perfect cognate morpheme is available in Luw. *-z(z)a-* (Melchert, 1987, pp. 198f), enabling a PL suffigal reconstruction *-*cə*-.[190] Furthermore, the verbs could not have ended in an original /s/, since this would have yielded Lyc. /h/, unless immediately followed by the ending, which would conversely have yielded assimilation *-*st*- > -*s*- (cf. Lyc. *esi* < PL **ʔəsti* '(s)he is'). Thus, we are forced to reconstruct an input sequence *-*ḱV-C*- on independent grounds for Lycian in either case. In sum, the *sḱé/ó*-type is indubitably the input type for the Lycian *s*-stems.

Deriving the Lycian *s*-verbs from original *sḱé/ó*-formations has a few interesting consequences. First of all, *as-*^{tti} (from *a*(*i*)-^{di}) and *tas-*^{tti} (from (*t*)*ta-*^{di}) are clearly secondary formations on account of their apparent full grade roots, indicating productivity of the stem formant *-s-*. Original PIE *-sḱé/ó*-formations took a zero grade in the root (LIV,

[186] With some possible exceptions. Note the lenited consonants *ap*[*d*]*di* '(s)he seizes' (cf. section 9.1.1) and the singleton consonant in *xalte* '(s)he controls (?)' (section 9.1.4).

[187] Cf. however the tentative suffigal origin of the *-h-* in *puh-*^{tti} '?' (section 9.1.3).

[188] This may likely be attributed to the lack of attested material.

[189] Cf. e.g. Melchert 1994, p. 302; Serangeli 2018a, p. 319.

[190] Further comparison with the Hittite suffix *-ske/a-* confirms the existence of the type in Anatolian beyond any reasonable doubt.

p.19), a state of affairs confirmed in Anatolian by Hitt. *zikke/a-*^{mi} (< PIE *$d^{h}h_{1}$-sḱé/ó-). Secondly, Lycian *s*-verbs as original -*sḱé/ó*-formations give a clear precedent for accent retraction in at least Pre-Lycian times.[191] This is necessary for the syncope that evidently occured in the suffix, since original *sḱé/ó*-formations took suffigal accent.[192]

The following verbs belong to the *s*-stem class: *as-*^{tti}, *qas-*^{tti}, *tas-*^{tti}, *tus-*^{tti}, *xis-*^{tti}, *xlas-*^{ti}[193], *zas-*.

4.5.3 The *i*-conjugating *s*-stem class (-*s-*^{i})

The *i*-conjugating *s*-stem class is only represented by one lemma: *es-*^{i} 'to be'. Motivation for a separate class comes in form of the unique ending allomorphy 3SG.PRES.A -*i* and -*u* (cf. sections 3.3.2 and 3.3.9). These arise from the sequence PL **VstV*, where the -*t*- is lost (see section 9.3.1). As informed by the etymology of *es-*^{i} (< PIE *h_{1}és-ti), the *i*-conjugating *s*-stem class is the reflex of PIE verbal root formations to roots ending in */s/.

4.5.4 The *hi*-conjugating C-stem class (-C-^{e})

The *hi*-conjugating C-stems have a stem final consonant and take the *hi*-conjugation ending -*e* in the 3SG. It is a very small class, comprising only two verbs: *ñn-*^{e}[194] and *ub*(*e*)-^{e}.

Establishing an input type on the basis of only two verbs is inherently tentative. However, by the same logic as original *mi*-conjugating root presents give C-stems proper, original *hi*-conjugating root verbs ought to give *hi*-conjugating C-stems. Under the analysis of the present thesis, this is likely true at least for *ñn-*^{e}, which originates in the PIE root *(*s*)*neh*$_{1}$ 'to turn' (Lyc. *ñne* < PIE **ne-nóh*$_{1}$-*ei*).[195] Therefore, establishing at least one source as *hi*-verbs with consonant final roots is justifiable. The etymology of *ub*(*e*)-^{e} is more obscure (see section 9.4.2), and is thus of limited probative value for determining stem type input.

[191] And probably already in Luwic times; cf. the plene spelling in CLuw. ⟨du-ú-pi-ti⟩ '(s)he strikes'.

[192] Proven as Anatolian by the Hittite ablaut -*e/a*-.

[193] See section 9.2.6 for reckoning of the ungeminated ending.

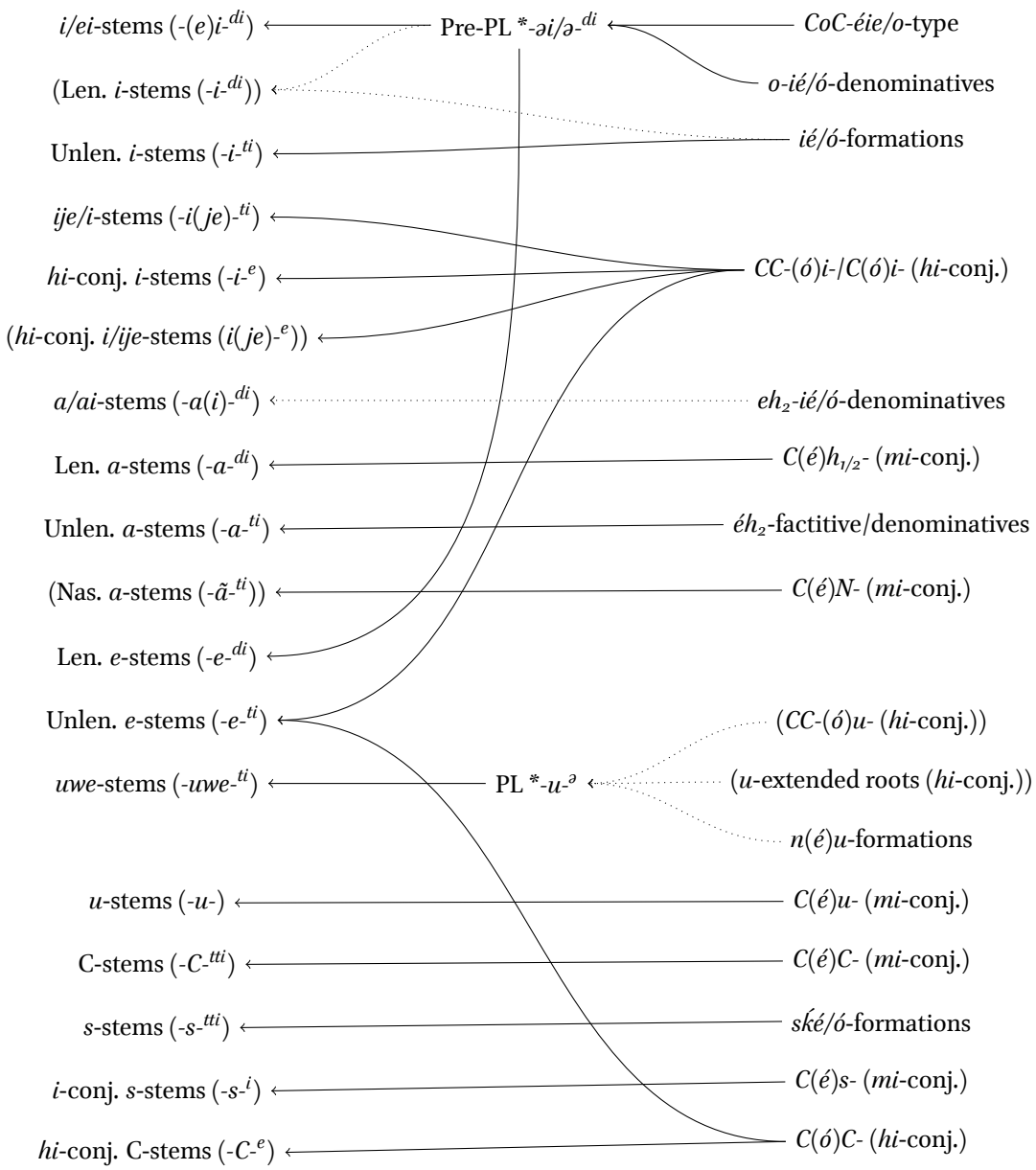
[194] Lemma usually given as *zuñmẽñne-* in the literature. See individual entry in section 9.4.1 for justification of segmentation *zuñmẽ ñne-*.

[195] See Kloekhorst & Lubotsky, 2014 for radical reconstruction.

4.6 Summary

The stem classes discussed above are listed in figure 5 with their now established etymological input types. Dotted arrows represent more tentative derivations. Types whose names are enclosed in parentheses are not secured.

Figure 5: Etymological input of the Lycian verbal stem classes



5 The *i*-stem verbs

In the following sections (up to section 9), all Lycian verbs are treated individually. All attested forms for each verb is given. Places of attestation are given unless there are more than three secured instances of a given form in different texts. In these cases, DLL and GdL may be consulted. Insecure info is enclosed in parentheses.

5.1 *i/ei*-ablauting verbs

5.1.1 *ep(e)i-*^{di} 'levy, deliver (vel sim.)'

3PL.PRET.A	*epeite*	TL26,19

Meaning not entirely consensual. Neumann (GdL, p. 60) gives 'etwa ordnen, vorbereiten, stiften', Melchert (DLL, p. 14) 'to levy', and Hajnal (1995, p. 150) 'geben'. In either case, the syntactic object is a three-year old bovine (*wawã trisñni*) to be offered to the Storm-God *Trqqñt*.[196]

Hajnal (ibid.) convincingly analyses Lyc. *ep(e)i-*^{di} as a *CoC-éie/o*-causative to the PIE root **h₁ep-* 'to seize' (i.e. roughly 'to make take' = 'to deliver (vel sim.)').[197] This implies direct cognacy between the Lycian verb and Alb. *jep* '(s)he gives', both reflecting a stem PIE **h₁op-éie/o-* (LIV, p. 237).

5.1.2 *kumez(e)i-*^{di} 'sacrifice, worship'

3SG.PRES.A	*kumezidi*	frequent
3PL.PRES.A	*kumezeiti*	frequent
INF	*kumezeine*	frequent
INF	*kumezeini*	TL65,12

Meaning well established.[198] Radically related to Luw. *kumma-* 'pure'. Either denominative to unattested **kumeze/i-* or deadjectival to *kumezi(je)-* 'sacred'. Pace Laroche 1979, p. 109 not denominal to *kumaza-* 'priest', which forms another verb (i.e. *kumaza-*, section 6.3.5). Probably not a primary *i/ei*-verb on account of the base noun formation (*z*-derivation and *ije*-extension if deadjectival, both productive in Luwic).

[196] TL26,18-19: ⟨trqqñti : wawã : trisñni : qla[...]eli : epeite⟩.
[197] Thus radical cognates in Lycian include *pije-*^{ti} 'to give' (section 7.2.6) and *app-* 'to seize' (section 9.1.1).
[198] Cf. DLL, p. 34; GdL, p. 177.

5.1.3 *mlm̃m(e)i-*^{di} '?'

3PL.PRET.A	*mlm̃meite*	TL29,8

Not a secured verb. Both Melchert (DLL, p. 40) and Neumann (GdL, p. 220) allow for the possibility of a DAT/LOC.PL noun. The context allows for either interpretation, but the syntax arguably favours a verbal interpretation. Consider example (12).[199]

(12) **TL29,8**
⟨[..]sajajepijẽte : ẽmuñmaja : hṛṃazaxa : ñzzijahasedeplm̃mi : kñtuni : mlm̃meite⟩

pij-ẽte *ẽmu* *m̃maj-a* *hrmaza-xa*
give-3PL.PRET.A 1SG.NOM installation-NOM/ACC.PL.N ?-1SG.PRET.A
ñzzijah-a *se=ede* *plm̃m-i* *kñtun-i*
?-NOM/ACC.PL.N CONJ=NOM/ACC.SG/PL.N ?-DAT/LOC.SG ?-DAT/LOC.SG
mlm̃me-ite
?-3PL.PRET.A

'...they gave. I *hrmaza*'d the *ñzzijah* installations. They *mlm̃m*'ed them to/for the *plm̃mi kñtuni*'

A 3PL.PRET reading is compatible with *pijẽte* 'they gave' standing in the beginning of the line. A verbal interpretation would also allow for pronominal *=ede* to be the object, referring back to *m̃maja* 'installations' (NOM/ACC.PL.N) in the preceding clause. Unfortunately, both words presumably constituting the indirect object NP, *plm̃mi* and *kñtuni*, do not have an established translation either.

No good comparanda is to my knowledge apparent under any interpretation of *mlm̃meite*. The problem is exacerbated by lack of semantic information.

5.1.4 *m̃m(e)i-*^{di} 'build'

3PL.PRES/PRET.A	*m̃meit*[.]	TL44a,14

Attestation may be either present or preterite since the final deciding vowel is broken off.

[199] Translation of *m̃maja* with Melchert (DLL, p. 42). The word *ñzzijaha* may be related to the Luw. 1PL pronominal base *anza-*, and consequently be a possessive adjective meaning 'our'. For the meaning of *hrmazaxa*, see section 6.3.4. A (very) tentative translation of the sentence could read 'I made our installations temenoi (vel sim.)'.

Lyc. *m̃m(e)i-*^{di} belongs to a family of words beginning in *m̃m-* concerning construction (e.g. *m̃me/i-* 'building (vel sim.)'). Notably, two of these other words are verbs: *m̃ma(i)-*^{di} and *m̃m(e)ije-*^{ti}. Given their formal and semantic proximity, all three verbs will be treated together in this section.

First, it must be established if the verbs can be semantically separated. This is difficult due to their scanty attestation: *m̃maite* (3PL.PRET.A, N370,7) to *m̃ma(i)-*^{di}, *m̃mijeti* (3SG.PRES.A, N326,1) and *m̃meijeti* (3SG.PRES.A, N318,6) to *m̃m(e)ije-*^{ti}.[200] The best evidence exists for *m̃maite*, which corresponds to Gk. ἱδρύσασθαι (INF.AOR.M to ἱδρύω 'to erect (of a building)') on the trilingual and takes the object *θθẽ* 'building'.[201] Lyc. *m̃meit*[.] takes the object *prñnawã* 'mausoleum', without surrounding context to give further information. As such, it is reminiscent of *prñnewa-*^{ti} 'to build' (section 6.3.10), and may consequently be synonymous. For *m̃meijeti*, no object is available due to broken text, while *m̃mijeti* is construed with the object *xθθanahi* of unknown meaning, but probably a building, cf. GdL, p. 136. Thus, at least *m̃m(e)i-*^{di} and *m̃ma(i)-*^{di} denote some sort of construction, presumably of different kinds. No definite semantic difference is to my mind determinable.

Concerning etymology, the material on which to base an analysis is scarce. The following account is consequently somewhat tentative.

Lyc. *m̃m(e)i-*^{di} and its family are usually connected to the PIE root **dem*(h_2)- 'to build' (cf. GdL, p. 231; LIV, pp. 114f). Considering the only available Luwic comparandum is HLuw. *tama-*^{ri} 'to build'[202] (more often than not with the logogram AEDIFICARE), this is likely correct.[203] The implication is that Pre-Lyc. **#tm-* assimilates to Lyc. *#m̃m-*. Given that *m̃m(e)i-*^{di} cannot correspond to HLuw. *tama-*^{ri} (we would in that case expect an *i/ai*-ablauting stem in Luwian), while *m̃ma(i)-*^{di} can,[204] *m̃ma(i)-*^{di} is likely the older formation. In other words: we are licensed to reconstruct a PL stem **t*(*V*)*ma-*^{di} 'to build (vel sim.)' reflected in Lyc. *m̃ma(i)* and HLuw. *tama-*^{ri}, but no preform for Lyc. *m̃m(e)i-*^{di}. Consequently, this latter form is possibly a Lycian innovation, presumably denominative to Lyc. *m̃me/i-* 'building'.[205] The two verbs are in this case still radically

[200] The first-*e-* in *m̃meijeti* remains puzzling and without satisfying explanation.

[201] For the meaning of *θθẽ*, see Schürr 2016.

[202] E.g. 3PL.PRET.A ⟨(AEDIFICARE)ta-ma-ta⟩ (ÇİFTLİK §4), ⟨AEDIFICARE.MI-ri+i-i⟩ (KARATEPE 1 §LXXI).

[203] Cf. also most likely Lyd. *tam-* 'to build' (LW, p. 99).

[204] Ablaut in *a/ai* is likely secondary in Lycian (see section 4.2.1), and thus the disagreement in the plural forms Lyc. *m̃maite* and HLuw. *tamanta* ⟨ta-ma-ta⟩ (see footnote 202) does not prohibit an etymological connection.

[205] It is technically possible that two variants reflecting **d*(*V*)*m-eh*$_2$*-ié/ó-* and **d*(*V*)*m-o-ié/ó-* existed parallel to each other in Luwic but was lost in Luwian. However, it remains to my mind unclear why two words for 'to build' would coexist with the same root and similar stem formations (*-ié/ó-* suffix) for long enough

connected, however, given that Lyc. *m̃me/i-* likely reflects (virtual) PIE **d(V)m-o-* on account of HLuw. *tama/i-* 'building'.[206] Presumably, the new Lycian form filled some construction related semantic niche not covered by *prñnewa-^{ti}* and *m̃ma(i)-^{di}*.

Melchert (DLL, p. 42) reconstructs Lyc. *m̃ma(i)* as a *ié/ó*-denominative to an abstract *eh₂*-stem noun **dmh₂-éh₂*[207], i.e. (virtual) PIE **dmh₂-eh₂-ié/ó-*. To my mind, it is more better to reconstruct a *manāti*-type formation[208], i.e. **dm-(é)h₂-*.[209] First, note that a Luwic abstract noun stemming from a PL formation **tmā-* is non-existent. Secondly, lenition is expected by regular developments.[210]

At this point only Lyc. *m̃m(e)ije-^{ti}* remains untreated. Neumann (GdL, p. 231) subsumes *m̃mijeti* and *m̃meijeti* under the same lemma as *m̃meit*[.], but this is unlikely to be correct as it would imply a unique *ije/ei*-ablaut. Melchert (DLL, p. 42) takes *m̃m(e)* as denominative to a noun **m̃meje-* (NOM/ACC.PL.N *m̃maja*, TL29,8). This would constitute the only instance of denomination by means of a unleniting *e*-stem, and is thus unlikely.

Formally, Lyc. *m̃m(e)ije-^{ti}* is reminiscent of *pije-^{ti}* 'to give' (section 7.2.6), which reflects a *hi*-conjugating athematic *i*-stem of the type **CC-(ó)i-*. Thus, a similar origin can be hypothesised for *m̃m(e)ije-^{ti}*. As such, **dm-(ó)i-* is phonologically possible. However, to my mind, the verb should be derived from a PIE root *mei-* 'to establish' (LIV, p. 426).[211] With this root, we may reconstruct a stem **m(ó)i-*, which—with reduplication to explain the initial *m̃m-*—would regularly give *m̃mije-^{ti}* (see sections 4.1.5 and 4.3.2).[212] As such, the verb would be directly cognate to Ved. 3SG.PERF.IND.A *mimāya* '(s)he has established', further strengthening the reconstruction.[213] Another advantage is the avoidance of having to reconstruct yet another verb with the root **dem-*.

In sum, the argument made above can be schematised as in figure 6.

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to both be preserved in Lycian.

[206] See ACC.SG.C ⟨ta-mi-na⟩ 'building' (KIRŞEHİR §7), taken from ACLT.

[207] Formation type corresponding to the Hittite *tāye*-type, cf. EDHIL, pp. 134f, and section 4.2.1.

[208] Cf. footnote 140.

[209] For a similar verb formation, cf. 3SG.PERF.IND.A DorGk. δέδμᾶται < PIE **de-dm-eh₂-*.

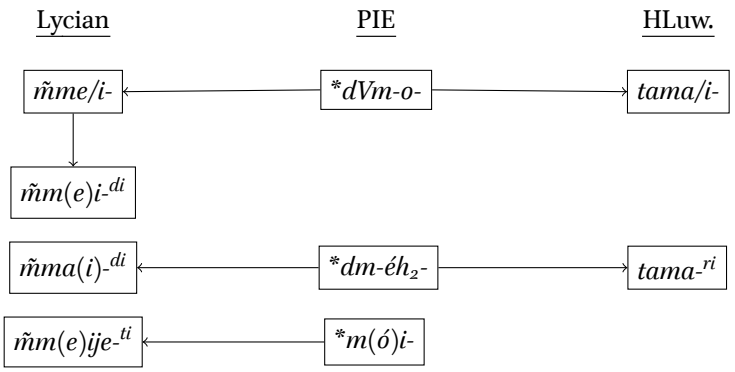
[210] The stem **demh₂-e/o-* reconstructed in Rix et al. 2001, pp. 114f is not valid; simple thematic presents are unprecedented in Anatolian and the lenition found in HLuw. *tamari* is unexplained. Furthermore, note that the root is reconstructed in Rix et al. 2001 as **demh₂-*.

[211] Radically reconstructed with **mei-* already by Hajnal (1995, p. 161), but with different morphological derivation.

[212] The ablauting *-ó-* could perhaps be invoked to explain the puzzling *-e-* in the stem variant *m̃meije-*. The analogical *-ij-* would thus be added first to the form **m̃me*, instead of directly reforming the stem and giving *m̃mije*. This is highly speculative, however, and the relationship to *m̃mijeti* remains obscure.

[213] Cf. Hitt. *nāi-^{hi}/ni-* 'to lead' ≈ Ved. *ināya* (Kloekhorst & Lubotsky, 2014).

Figure 6: Luwic words for 'to build'



5.1.5 *t(a)rb(e)i-^{di}* 'overpower (vel sim.)'

3SG.PRET.A	*tarbide*	TL44a,46-47
(3PL.PRET.A)	*trbbeite*	TL44c,10

Provided meaning per Stoltenberg (1955, p. 87) and Melchert (DLL, p. 60). In either case the semantics are clearly martial (cf. GdL, p. 338). Note that the form *trbbeite* on TL44c,10 has a disputed analysis: it may either be seen as a 3PL.PRET.A (e.g. per Hajnal 1995, p. 145) or as a *-nt*-derivative (e.g. per Melchert, DLL, p. 69).[214]

Lyc. *t(a)rb(e)i-^{di}* is often linked to Lyc. *trbbe-^{ti}* 'to oppose (?)', and therefore the etymology of *trbbe-* will also be discussed in this section.[215] Firstly, Luwian knows two verbs, *tarpā-* 'to tread (?)'[216] and *tarp(a)i-* 'to trample; destroy'[217], which are to be clearly separated (CLL, pp. 214 & 217).[218] On account of the *-i-*, Luw. *tarp(a)i-* is to be equated with Lyc. *t(a)rb(e)i-^{di}*, and not *trbbe-^{ti}*, licensing a PL stem reconstruction **t(ə)rb(ə)i-^{di}*.

Since Josephson (1979), both verbs are connected to the PIE root **trep-* 'to turn; step' (LIV, p. 650)[219], attested in Hitt. *terepp-^{mi}/tere/ipp-* (< PIE **tr(é)p-* 'to plough', EDHIL, pp. 871). However, beyond the semantic connection to a verb of destruction not being

[214] Note that, in either case, the prediction made in section 4.1.1 that secondary monophthongisation does not occur before Pre-PL nasals still holds.

[215] Cf. e.g. Josephson 1979; Hajnal 1995, pp. 145f; Serangeli 2018b, pp. 203f.

[216] Cf. CLuw. ⟨tar-pa-a-tar⟩ 3SG.PRES.M (KBo XXIX.49 Ro 4); HLuw. ⟨tara/i-pa-a-ti⟩ 3SG.PRES.A (KARAHÖYÜK §22).

[217] CLuw. *tarpīta* (CLL, p. 217); HLuw. ⟨(PES2.PES)tara/i-pi-ti⟩ 3SG.PRES.A (POTOROO §8, taken from ACLT).

[218] Pace Starke (1990, p. 234).

[219] Cf. e.g. Gk. τρέπω 'to turn'.

directly obvious, formal issues arise as well. Hajnal (1995, p. 146) and Serangeli (2018b, p. 188) both reconstruct a *CoC-éie/o*-type formation **trop-éie/o-*, but this is not valid: the Luwian form remains unexplained (not ***trap(a)i-*) and there is no source of lenition for the final radical.

To my mind, a direct (!) cognate may be found in PG **darbjan* 'to destroy' (Kroonen, 2013, p. 89).[220] As such, both PL **tərb(ə)i-*^{di} and PG **darbjan* regularly reflect a PIE causative *CoC-éie/o*-type stem **d^{h}or(H)b^h-éie/o-* to a root **d^{h}er(H)b^h-* 'to perish (vel sim.)' (semantically 'to make perish' > 'to destroy').[221] The only questionable element is the *-a-* in Lyc. *tarbide*, possibly explained through anaptyxis following accent retraction, i.e. Lyc. *tarbide* < **tŕbide* < **trbíde*.[222] Note that this could imply a difference in accentuation between *tarbide* and *trbbeite*.

Conversely, Lyc. *trbbe-*^{ti} with the translation 'to oppose' (cf. Hajnal 1995, pp. 145f; DLL, p. 69) may be equated to Luw. *tarpā-*. The Luwian verb is leniting, so in such a case the unlenited ending in the Lycian form *trbbetẽ* would have to be secondary (cf. section 3.1). This verb is possibly a *o-ié/ó*-type denominal to the preform underlying Lyc. *trbbi* 'opposite (?)' and HLuw. *tarpi* 'opposition (?)'.[223] While the semantic reasons to attempt a connection to PIE **trep-* 'to turn' are understandable[224], there are serious formal obstacles in the lenited final radical consonant. There is to my mind no *satisfying* scenario available which explains both the vocalism of the Luwian and Lycian forms coupled with lenition of *-p-* in PIE **trep-*. Thus, for now *non liquet*.[225]

It is possible that Mil. *trbbdi* (TL44c,37; TL44d,22.34) is to be subsumed under one of the lemmata discussed above. The Milyan sequence *trbbẽniti* has also been adduced, but is too controversial to merit any lengthy discussion here (cf. GdL, p. 371).[226]

[220] Cf. MLG *derven* 'to shrink, wither, spoil', MHG *ver-derben* 'to ruin, kill', ModSwe. *för-därva* 'to ruin'.

[221] The laryngeal is reconstructed by Kroonen (2013, p. 89) and Derksen (2014, p. 131) in order to account for the accentuation of the presumed cognate Lith. *dìrbti* 'to work'. Formally, this laryngeal is not relevant for the cognacy of the Luwic and Germanic verbs.

[222] So also per Serangeli (2018b, p. 188). For another case where an accentuated syllabic resonant gives Lycian *-a-*, cf. e.g. Lyc. *qas-*^{tti} 'to punish (vel sim.)', section 9.2.2.

[223] Melchert (DLL, p. 69) rather translates Lyc. *trbbi* as 'enemy' (i.e. 'the one turned against').

[224] Note the interpretation of HLuw. *tarapa-* as 'to plough' by Morpurgo-Davies (1986), mirroring Hitt. *terepp-*^{mi}*/tere/ipp-* 'to plough' (< PIE **trep-*).

[225] The term *non liquet* ('it is not clear') is used throughout this thesis for situations where no definite conclusions may as of yet be drawn.

[226] The account per Hajnal (1995, p. 146) to analyse Mil. *trbbẽniti* as *trbbẽni=ti*, where *trbbẽni* is a stative-middle from PIE **trep-* is to be discarded. Such a scenario presupposes a preform **trép-o*. Thus, the lenition remains completely unexplained and an unprecedented accent *protraction* is required (cf. Serangeli 2018b).

5.1.6 *ttl(e)i-^{di}* 'pay'

3SG.PRES.A	*ttlidi*	frequent
3PL.PRES.A	*ttleiti*	TL102,2-3

Meaning relatively consensual (see GdL, pp. 382f). Occurs in apodoses as punishment for various transgressions, often with livestock as direct object.[227] Within Lycian, the verb is likely related to *tllaxñta-* 'payment (vel sim.)' (Laroche, 1979, p. 69), and perhaps also *tti-^{ti}* 'to pay' (section 5.3.9). If Mil. *kille* is correctly analysed as a word by Melchert (DLL, p. 118), it is in all likelyhood also related.

Two plausible etymologies have been proposed for Lyc. *ttl(e)i-^{di}*. Heubeck (1985, p. 40) connects the verb to Gk. τελέω 'to pay' and reconstructs a PIE root **telh$_1$-*. The geminate initial is presumed to originate in reduplication. Within the paradigm established in this thesis (see section 4.1.1), we would with this etymology reconstruct a virtual preform **ti-tolh$_1$-éie/o-*. The implication is that *all* vowels before the accented suffix are syncopated, unlike in the formally reminiscent verb *telixa* < **k^{w}ol-éie-h$_2$e* (see section 5.3.8).[228]

Conversely, Melchert (DLL, p. 68) suggests a denominative origin from an unattested noun **title-* (< **k^{w}ei-d^{h}lo-*).[229] A direct cognate of this hypothetical noun may be attested in Mil. *kille* (TL55,7). As such, Lyc. *ttlidi* < (virtual?) **k^{w}ei-d^{h}lo-ié-ti*. Under this analysis the geminate initial is explained as a contracted sequence **-k^{w}d^h-*. Provided that this is the correct etymology, further radical cognates are found in Lyc. *tti-^{ti}* 'to pay' and Mil. *kikiti* 'pays (?)'.

Heubeck's etymology is preferrable on account of the general rarity of Anatolian instrument nouns in **-d^{h}lo-*,[230] while Melchert's scenario finds support in the Milyan noun *kille*. Either is formally satisfactory and project the form back to a Pre-PL **-əi/ə-^{di}-* type paradigm (see section 4.1.1).

[227] E.g. on TL111,4: *se ttlidi trzzubi ãñmãma kbisñtãta uwa* 'and he shall pay to Trzzuba twelve *ãñmãma* heads of cattle'.

[228] It is possible that the difference in syncopation is related to the root syllable being closed in **ti-tolh$_1$-éie/o-*.

[229] The PIE root **k^{w}ei-* means 'to sell', see LIV, p. 379f.

[230] Cf. Hitt. ^{GIŠ}*siyattal* 'arrow' < PIE **h$_1$s-io-d^{h}lo-*.

5.1.7 *tub(e)i-^{di}* 'strike, smite'

3SG.PRES.A	*tubidi*	frequent
3PL.PRES.A	*tubeiti*	frequent

Semantics well established.[231] Luwic cognates in Luw. *tup(a)i-*[232] and Mil. *tubidi* license a PL stem reconstruction **tub(ə)i-^{di}* 'to strike'.

Lyc. *tub(e)i-^{di}* is in all likelyhood related to Lyc. *tube-^{di}* 'to decide (vel sim.)' (section 7.1.3), and both verbs will therefore be etymologically treated here. PL **tub(ə)i-^{di}* is usually reconstructed with an inherited *CoC-éie/o*-type stem of a root PIE **(s)teub^{h}-*, cf. Gk. στυφελίζω 'strike hard' (AHP, p. 242).[233] On the other hand, Lyc. *tube-^{di}* is reconstructed by Melchert (1997, p. 136) as a *o-ié/ó*-type denominative with the base noun attested in the Lyc. *tube* (TL29,10).[234] However, in the developments postulated in this thesis (see sections 4.1.1 and 4.3.1), both verbs would be homonymical in PL. In general, the very similar formal properties arouse suspicion of a common origin—a route pursued below.

By the scenarios of sections 4.1.1 and 4.3.1, both Lyc. *tub(e)i-^{di}* and *tube-^{di}* should go back to a Pre-PL paradigm 3SG **tub-əi-dV* : 3PL **tub-ə-ntV*. However, something prompted the verbs to take separate analogical paths, one generalising the singular stem formant, the other the plural. Here, it should be noted that Lyc. *tube-^{di}* is always preceded by a preverb[235], but never *tub(e)i-^{di}*. Consequently, 'to decide (vel sim.)' is likely a derived meaning brought about by the preverb in the Pre-PL *əi/ə*-ablauting verb meaning 'to strike'.[236] This lexical distinction is what allowed the verbs to generalise different stem formants.[237]

Given that the two verbs are semantically compatible, it seems reasonable to unify them under one etymology, rather than the separate ones given above. Since a possible nominal base is available in *tube*, a denominal *o-ié/ó*-type would appear the most probable option. The nominal base may in turn be compared to Gk. τύπος 'blow, beat, etc.',

[231] Cf. GdL, pp. 384f; DLL, p. 72.

[232] CLuw: 3SG.PRES.A ⟨du-ú-pí-ti⟩, 3PL.PRES.A ⟨du-pa-in-ti⟩ (CLL, p. 235). HLuw: 3SG.PRES.A ⟨tu-pi-ri+i⟩ (SULTAHAN §51), 3PL.PRET.A ⟨(*273)tu-pa-i-ta⟩ (ANCOZ 8 §7).

[233] Differently, however, in LIV, p. 602, where the verb is reconstructed as a primary *ié/ó*-stem to a root **(s)teup-*, cf. Gk. τύπτω 'strike'. This is impossible on account of the lenited radical coda and the lenited ending, cf. sections 3.1 and 4.1.3.

[234] Denomination to *tube* for *tube-^{di}* was proposed already by Laroche (1979, p. 63). See also the different, surely incorrect account by Hajnal in section 7.1.3.

[235] *hñti* on N320,5; *hri* on N324,13.

[236] For semantic connection, cf. ModSwe. *slå fast* 'to decide', literally 'strike firmly'.

[237] For a parallel, cf. ModSwe. *skära* 'to cut' vs. prefixed *beskära* 'to crop', where the unprefixed verb takes the archaic supine form *skuren* whereas the prefixed verb takes the innovated form *beskärd* by analogy. I owe this observation to Axel Palmér.

connected to a PIE root *(*s*)*teup-* (EDG, p. 1519).[238]

5.1.8 *zrppud(e)i-^{di}* '?'

INF	*zrppudeine*	TL44b,45

Very tentative reading by Torp (1898b, p. 43). May be preceded by one or two graphemes. In either case formally analysable as an infinitive form in *-ne*. Assignment to *i/ei*-class supported by parallel infinitive form *kumezeine* to *kumez(e)i-^{di}* 'to sacrifice, worship' (see section 5.1.2). Further etymologising is impossible.

5.2 Leniting *i*-stem verbs

5.2.1 *asi-^{di}* '?'

3SG.PRES.A	*asidi*	TL35,17-18

The form *asidi* is only tentatively analysed as a verb by Melchert (DLL, p. 6). There is no entry for a form with this segmentation in GdL.[239] Completely obscure meaning.

5.2.2 *dderli-^{di}* '?'

3SG.PRES.A	*dderlidi*	TL35,17

A word of obscure semantics. However, analysis as a verb arguably appropriate for syntactic reasons: position before conjunction *se* (clause final) and preceded by eligible subject, direct object, and indirect object (see example (13)). No obvious cognates, and lack of semantics problematise etymologising.

(13) **TL35,16-17**
⟨sekbiparttalãaziseikuwaz[.]ḍderlidi⟩

se *kbi* *parttal-ã* *azis-e* *ikuwaz-*[*a*] *dderli-di*
CONJ another.ACC.SG.C ?-ACC.SG.C ?-DAT/LOC.SG ?-NOM.SG.C ?-3SG.PRES.A

'And the *ikuwaza dderli*'s another *parttala* for the *azise*'

[238] Lenition of the radical coda is expected in the verb, the consonant standing between two unaccented vowels. In the noun, however, the lenition is either due to different ablaut than the Greek, e.g. *(*s*)*tóup-o-*, or less likely contamination from the verb.

[239] However, the segmentation *asidizalaha* is given with reservations, p. 28.

5.2.3 (*ti*)*xzzi-*^{di} '?'

3SG.PRES.A	(*ti*)*xzzidi*	TL44b,40

Given as *tixzzidi* by Melchert (DLL, p. 68) and as *xzzidi* by Hajnal (1995, p. 159). Meaning very obscure, and thus not a useful verb for etymologising.[240]

5.2.4 *ϑri-*^{di} 'order, command'

3SG.PRET.A	*ϑride*	TL44b,60

Meaning determined since Stoltenberg (1959). So also connection to Lyc. *ϑrm̃ma-* 'command'.

Per Hajnal (1995, pp. 34f), the word family is to be connected to the PIE root *d*^{h}*er-* 'to establish, fix' (LIV, p. 145). As such, *ϑride* is a *i/ei*-ablauting verb reflecting PIE **d*^{h}*or-éie-ti* (cf. Ved. *dhārāyati* 'sustains'), and *ϑrm̃ma-* reflects a PIE *men*-stem **d*^{h}*ér-mn-* (cf. Ved. *dhárman* 'law, custom'). The semantic match is acceptable[241] and the etymology generally convincing, disregarding the fact that the initial *ϑ-* remains puzzling.[242] According to current knowledge, Lycian *ϑ-* should imply a phonematic sequence /th-/ (Kloekhorst, 2009, p. 124).

5.2.5 *xurzi-*^{di} 'carve (?)'

3SG.PRET.A	*xurzide*	TL44b,43

Verbal reading and meaning per Melchert (DLL, p. 86). Analysis with a segmentation *xurzi=de* also possible (cf. GdL, p. 142), in which case *xurzi-* is not verb. Melchert tentatively suggests a link to Hitt. *kuers-*^{mi}*/kurs-* 'to cut off'. This would imply a virtual preform **k*^{w}*or-s-éie/o-*. For the etymology to work properly, sound laws PIE **k*^{w}*o-* > Lyc. *xu-* and **-VrsV-* > Lyc. *-VrzV-* are required. On account of Lyc. *telixa* < **k*^{w}*ol-éie-h*$_2$*e*, the former is unlikely to be valid. Furthermore, the *-s-* suffix is unprecedented in an Anatolian *CoC-éie/o*-formation and is absent in CLuw. *kur*(*a*)*i-* 'to cut off'. Perhaps we are rather dealing with a *-z-*suffigal nominal, cf. e.g. *kumez*(*e*)*i-*^{di} (section 5.1.2). *Non liquet.*

[240] Hajnal proposes a connection to Hitt. *hassu* 'king', i.e. the PIE root **h*$_2$*ens-*, but this must be regarded as *highly* tentative.

[241] Causative 'to make become fixed' > 'to make someone fixed to do smth.'.

[242] It is furthermore potentially relevant that the root vowel in *telixa* 'I turned (vel sim.)' (see section 5.3.8) is not syncopated, whereas it is in *ϑride*. The verbs share origin type (**CoC-éie/o-*), and the root vowel would have occured in very similar contexts, i.e. before a resonant followed by a vowel.

5.3 Unleniting *i*-stem verbs

5.3.1 *ddewi-^{ti}* 'give, dedicate'

1SG.PRES.A	*ddawu*	N323c
(3SG.PRET.A	*ddewite*	TL21,3-4)

Meaning with Melchert (DLL, p. 10). Convincingly analysed as a denominative to *ddewe-* 'gift'. Would thus be an inherited *ié/ó*-denominative to a reduplicated *u*-stem noun **de-deh$_3$-u-*, i.e. **de-deh$_3$-u-ié/ó-*, as indicated by the *-i-* stem formant in the 3SG.PRET.A and the unlenited ending (cf. section 4.1.3). Note that Melchert gives two separate lemmas: *ddewi-* for *ddewite* and *ddewe-* for *ddawu.*. However, there is to my mind no convincing reason to multiply entities in this instance. The 1SG.PRES.A form can be assigned to the stem *ddewi-* by one of two processes: loss of intervocalic yodh in Proto-Luwic times[243] or loss of yodh before the original 1SG.PRES.A ending by sound law.[244] Conclusively, there is no reason not to view both forms as regular outcomes belonging to the same inherited denominative verb: *ddawu* < (virtual) PIE **de-deh$_3$-u-ió-H*,[245] *ddewite* < **de-deh$_3$-u-ié-to*.

In opposition to the analysis above, Eichner (2007) segments ⟨tlawad dewite⟩ on TL21 as *tlawad*[*i*]*=d=ewite*.[246] As such, *tlawadi* would be an ABL/INS form, *=d=* a particle, and *ewite* a verb. The 3SG.PRET.A verb *ewite* would mean '(s)he came', cognate to Luw. *awi-* and Hitt. *we-^{mi}/uwa-* (< PIE **h$_2$ou-h$_1$(é)i-*[247] of the same meaning). The reading would thus be '(s)he came from Tlos'. Although an enticing proposal, the unlenited ending remains problematic; the verb is, as expected from the input, consistently lenited in Luwian (cf. CLuw. *awiti* ⟨a-ú-i-ti⟩). Conversely, unlenited endings are productive; occassional unlenited endings on otherwise leniting stems has precedent (see section 3.1). Thus, Eichner's proposal should be considered a viable alternative.

5.3.2 *epri-^{ti}* 'sell; hand over (?)'

3SG.PRES.A	*epriti*	TL44c,14

Analysis as verb by Schürr (2004, p. 191). However, note that this is rather controversial:

[243] Only valid if the laryngeal segments the syllables in the following way: virtual **de-de-h$_3$u-ioH*. As such the yodh would be intervocalic between **-u-* and **-o-*.

[244] The conditioning for the loss depends on the stage at which it happened, e.g. before */ō/ in (post-)PA or before **-u#* (vel sim.) in PL.

[245] The *-a-* is easily explainable as resulting from *a/u*-umlaut. Cf. *pijaxa* 'I gave' to *pije-^{ti}*.

[246] As apparent in TL, p. 22, there is a gap between the two ⟨d⟩'s. Eichner postulates an ⟨i⟩ here.

[247] Note that the Hittite form cannot be primary, as the Luwic form is, since it has the monophtongized form of the prefix (EDHIL, p. 993).

epriti is otherwise often segmented as a *epri=ti*, i.e. an adjective *epri* followed by a relative pronoun (GdL, p. 64). Per Schürr a contracted form of *epirijeti* (see section 7.2.1), but this is clearly *ad hoc*.[248] Melchert (DLL, p. 15) rather takes Lyc. *epri-^{ti}* as cognate to *epirije-^{ti}*. However this is hardly convincing; what exactly is the relationship between the two stems? On the other hand, *epri-^{ti}* is more compatible with the etymology suggested for *epirije-^{ti}* by Kimball (1987a, pp. 187f), cf. section 7.2.1. However, for a link with Hitt. *hap(pa)riye/a-^{mi}* 'to sell, trade' to be valid, the initial *h-* in Hittite must be secondary as per Kortlandt (2010, p.169, cf. again section 7.2.1), thus reflecting a stem (virtual) PIE *$*h_3$op-r-ié/ó-$. *Non liquet.*

5.3.3 *ewi-^{ti}* 'come'

(3SG.PRET.A	*ewite*	TL21,3-4)

See section 5.3.1 for discussion. If correctly read by Eichner (2007), cognate to Luw. *awi-* and Hitt. *we-^{mi}/uwa-* 'to come' (< PIE *$*h_2$ou-h_1(é)i-$).

5.3.4 *pzzi-^{ti}* 'decide, decree, command (vel sim.)'

3SG.PRES.A	*pzziti*	N320,41 | N324,19

Semantic domain established through the Letoon Trilingual (Laroche, 1979, p. 76). Convincingly analysed by Hajnal (1995, p. 68) as denominal to the same base as the noun *pzzidezes* '?' (TL44b,9).[249] The lack of lenition suggests an origin as a *ié/ó*-denominative (see section 4.1.3). There is no obvious Indo-European cognate to allow for more precise reconstruction, however.

5.3.5 *qehñni-^{ti}* '?'

3SG.PRET.A	*qehñnite*	N310,3

Meaning completely obscure.[250] In either case, very likely *ié/ó*-denominative to the equally obscure noun *qehñ-*. This is supported by *-i-* stem formant, lack of lenition, and attested derivational base.

[248] Schürr adduces cases like 3SG.PRES.A *erije* vs. 3SG.PRET.A *erite* to *eri(jei)-^{e}* 'to raise' (section 5.5.2). However, this is invalid: there is no reason to believe that we are not dealing with apophonic alternations in the verbs adduced by Schürr, whereas *epriti* and *epirijeti* are both 3SG.PRES.A forms. Furthermore, note the lack of *-i-* in the second syllable of *epriti*, i.e. *epirijeti* but *epriti*, *not* ***epiriti*.

[249] The noun *pzzidezes* would as such be an *id*-suffigal noun formed to a hypothetical unattested base noun **pzze/i-*.

[250] Cf. GdL, p. 299.

5.3.6 *serni-^{ti}* '?'

3SG.PRET.A	*se[rn]itẽ*	TL20,1

Completely obscure meaning and unsecured reading (DLL, p. 57). Occurs on a severely damaged and brief inscription. Etymologising is therefore perilous. If a verb then certainly an unleniting *i*-stem, however.

5.3.7 *si-^{ti}* 'lie'

1SG.PRES.M	*ṣiχani*	TL128,2
3SG.PRES.M	*sijẽni*	frequent
3SG.PRES.M	*sijeni*	TL78,3
3PL.PRES.M	*sitẽni*	TL44b,61 | N320,25

The reading of *sixani* on TL128,2 is not to be debated, see Melchert 1992a. Meaning secured since Melchert's 1992 article.[251]

The verb *si-^{ti}* is significant in that it is the only known Lycian deponent. As such, both the 3SG.PRES.M and 3PL.PRES.M are only securely attested with this verb (see sections 3.3.13 and 3.3.14).

Arguably, *si-^{ti}* could be assigned to its own class on account of being a deponent verb. However, in this thesis, the classificatory criteria chosen was *stem formant* and *ending allomorphy* (see section 4). As such *si-^{ti}* is assigned to the unleniting *i*-stem class on account of the 1SG.PRET.M form *sixani*.[252]

Lycian *si-* surely reflects PIE **ḱei-* 'to lie' (LIV, p. 320), a known archaic media tantum. Anatolian cognates are found in CLuw. *zīyari* and Hitt. *ki-$^{tta(ri)}$*. Cf. also Skt. *śáye*, Gk. κεῖται 'lies'. Thus: Lyc. *sixani* < **ḱéi-h_2(e)*, *sijẽni* < **ḱéi-o*, *sitẽni* < **ḱéi-nto*.[253]

5.3.8 *teli-^{ti}* 'turn (vel sim.)'

1SG.PRET.A	*telixa*	TL29,6

The given meaning is informed by the cognacy to CLuw. *ku(wa)l(a)i-* 'to turn' established by Hajnal (1995, p. 144), with which a PL verb stem **kʷəl(ə)i-^{di}* is reconstructable.

[251] Cf. also GdL, p. 323.

[252] Note however that the expected outcome of **ḱéi-h_2e* is Lyc. **sigani*. Therefore, it is from a secured top-down perspective justified to view *sixani* as secondarily unlenited, cf. the discussion in section 3.1.

[253] All with the added "middle suffix" *-ni*, see section 3.3.12.

This verb is in turn directly comparable to Skt. *cārāyati* '(s)he sets in motion' and derivable from a PIE *CoC-éie/o*-type causative **k^{w}ol-éie/o-* (see section 4.1.1).

Although the meaning of the verb is difficult to precisely establish within Lycian on account of obscure context, a meaning related to the notion of 'to turn' is probable. Consider example (14).[254]

(14) **TL29,6**
⟨señnemlẽ : θurttu : telixa : seiñtepi : wazzisñ : telixa : pddãti⟩

se=ñne *ml-ẽ* *ϑurtt-u* *teli-xa*
CONJ=DAT/LOC.PL offering(?)-GEN.PL uncle-ACC.SG.C turn(?)-1SG.PRET.A
se=i *ñtepi* *wazzis-ñ* *telixa* *pddãt-i*
CONJ=DAT/LOC.SG into ?ship-ACC.SG turn(?)-1SG.PRET.A place-DAT/LOC.SG

'I turned to them the uncle of the offerings and I turned the *wazzis*-ship into place for him'

The phrase *ñtepi pddãti* 'into place' implies a possibly kinetic meaning. The enclitic dative objects in both sentences imply some form of recipient or benefactor. Although the available clues are few, a meaning derived from 'to make turn' is compatible with the available contextual information.[255]

Lyc. *teli-*^{ti} is for aforementioned reasons to be treated as a *i/ei*-ablauting stem, i.e. *tel(e)i-*^{di}, even though the available data does not allow for such a categorisation. The unlenited ending is hardly problematic, given both the productivity of the unlenited endings (cf. section 3.1) and the paralleled occurance of the unlenited 1SG.PRET.A ending in leniting paradigms (cf. *axa* to *a(i)-*^{di} 'to do, make', *taxa* to *(t)ta-*^{di} 'to put, place').

5.3.9 *tti-*^{ti} 'pay'

3SG.PRES.A	*ttiti*	TL94,3 | TL131,4

Semantic domain uncontroversial.[256] Within Lycian related to *tijãi* 'amends' (DLL, p. 69) and potentially to *ttl(e)i-*^{di} 'to pay' (section 5.1.6).

[254] Translations of *mlẽ* and *wazzisñ* are taken from DLL.

[255] Perhaps a meaning like 'to instate' is to be postulated, given that both direct objects (*ml-ẽ ϑurtt-u* and *wazzisñ*) seemingly concern titles. Thus: 'I instated for them the uncle of the offerings, and for him (the uncle) I instated in place the office of *wazzis*'.

[256] See GdL, p. 382; DLL, p. 65.

Heubeck (1985, p. 41) connects Lyc. *tti-* to the PIE root **k^{w}ei-* 'to pay' (LIV, pp. 379f, cf. Gk. τίνω 'to pay') and posits reduplication to explain the geminated initial *tt-*. This is semantically and formally attractive, enabling a connection to Mil. *kikiti* (TL55,5). However, the stem formation is never made explicit. Serangeli (2018b, p. 216) postulates a formation **k^{w}ei-k^{w}ei-ti*, but this is unattractive on account of the unlenited ending (expected development: **k^{w}ei-k^{w}ei-ti* > Lyc. ***ttidi*, see section 3.1). We are better off reconstructing a primary *ié/ó*-stem[257]: a preform **k^{w}i-k^{w}i-ié-ti* would regularly give Lyc. *ttiti*.

5.3.10 *xi-^{ti}* 'perform animal sacrifice'

3SG.PRET.A	*xitẽ*	TL84,4

Meaning fairly uncontroversial.[258] Inner-Lycian related word possibly to be found in *uwadraxi-* 'bull sacrifice', and probably in Milyan *xi* (TL55,5) and *xi*[*st*]*te* (TL55,6). The rationale behind linking Lyc. *xi-^{ti}* to Lyc. *axa-* 'sacrifice' as proposed by Melchert (DLL, p. 7) escapes me. Cognates in Latin, *agō* 'priest' and *agōnia* 'sacrifice', are adduced with a PIE radical reconstruction **h$_1$aǵ-* (sic), but there is to my mind no way of yielding *xi-* using this reconstruction.

An alternative solution is analysing *xi-* as denominal to a noun **xi-* (as found in Milyan). However, it should be noted that a *ié/ó*-stem formed directly to a sequence ending in PIE **-ǵ-* is dubious given the Luwian sound law PIE **-ǵiV-* > Luw. *-zV-* (Melchert *apud* Rieken 2007, p. 270).[259]

A new etymological proposal for *xi-^{ti}* follows here. There is good reason assume that the the treatment of the sequence PA **-sH-* in Luwic is analogous to that of **-st-*, i.e. loss of *s-* in initial position (see section 6.3.12) and Lycian loss of the *-t-* in the PL sequence **-VstV* (section 3.3.2).[260] Thus, one possible input sequence for Lyc. *x-* is PIE **#sh$_2$-*.[261] This enables comparison to Hitt. *ishāi-^{hi}/ishi-* 'to bind', reflecting PIE **sh$_2$-(ó)i-* (cf. Skt. *sináti* '(s)he binds', Lith. *siẽti* 'to bind'.).[262] For the semantic link, it is notable that the *s*-stem verb *xis-^{tti}* (section 9.2.5) takes the object *wawadra* 'herd of cattle' (TL44a,32). Thus, *xi-^{ti}* likely specifically refers to animal sacrifice, an activity for which *binding* is an

[257] Stem type **CC-ié/ó-*, cf. e.g. Hitt. *siye/a-^{mi}* < **h$_1$s-ié/ó-* (Kimball, 1987b, p. 163; LIV, p. 19).

[258] Cf. GdL, p. 122; DLL, p. 83.

[259] For reasons of relative chronology, the law PIE **-ǵiV-* > Luw. *-zV-* ought to be projected back to PL. The sequence of developments **ǵe* > **i̯e* > **i̯i* are known to be common Luwic (Lyc. *izre/i-*, CLuw. *is*(*sa*)*ra/i-* < PIE **ǵ^{h}és-r* 'hand', cf. AHP, p. 280). The shift PIE **-ǵiV-* > **-zV-* must occur before the shift of */ǵ/* to */i̯/* before a front vowel.

[260] See section 6.3.11 for further discussion on the fate of initial PIE **#sh$_2$-*.

[261] Cf. Luw. *hishi*(*ya*)- 'to bind' < PIE **sh$_2$i-sh$_2$-(ó)i-*.

[262] See EDHIL, pp. 391ff and HW^{4}, pp. 398ff.

absolute necessity. Accordingly, a semantic shift 'to bind an animal (for sacrifice)' > 'to sacrifice an animal' is fairly trivial.

Provided the etymology presented here is correct, note that Lyc. *xitẽ* is another example of an archaic stem formant of an original *hi*-conjugating athematic *i*-stem verb (i.e. Lyc. *xite* < virtual PIE **sh₂-ói-to*). As such, cf. the completely parallel Lyc. *erite* '(s)he raised' < virtual PIE **h₃r-ói-to* (section 5.5.2). It is thus possible that the attested 3SG.PRES.A form of *xi-^{ti}* was likewise archaic, i.e. **xije* < PIE **sh₂-ói-ei*, cf. *erije* '(s)he raises' < PIE **h₃r-ói-ei*, and that the verb is actually *hi*-conjugating, i.e. *xi-^{e}*.

5.4 *ije/i*-ablauting verbs

5.4.1 *pibi*(*je*)-^{ti} 'give'

3SG.PRES.A	*pibijeti*	TL44b,44 | TL149,3.5
3PL.PRES.A	*pibiti*	N320,18-19.21-22

Meaning relatively uncontroversial.[263] Reduplicated sister verb to *pije-^{ti}* 'to give' (section 7.2.6). According to Heubeck (1985, p. 44) with iterative sense.

For etymology, see section 4.1.4. Note that the reduplication syllable is not subject to syncope, like in other reduplicated stems (e.g. *ttadi* to (*t*)*ta-^{di}* 'to put, place'). As van de Kasteelen (2015, p. 19) points out, this may be due to the root beginning with a laryngeal, causing lengthening of the reduplication syllable. The implications are that PL distinguished vowel length phonemically and that long vowels were not subject to Lycian syncope, i.e. (virtual) PIE **h₁pi-h₁p-*(*ó*)*i-* > PL **pībi-* > Lyc. *pibi-*. The long vowel may perhaps also be invoked to account for the second consonant being lenis.

5.5 *hi*-conjugating *i*-stem verbs

5.5.1 *dderi-^{e}* 'curse (?)'

3SG.PRES.A	*dderije*	TL44b,17

Occurs on a broken passage of the Xanthos Stele, rendering any analysis more tentative. Analysis as a verb supported by syntactic position (end of clause) and lack of competing possible finite verb forms.[264] Meaning very tentatively with Melchert (DLL, p. 9) in comparison to HLuw. *tatariya-* 'to curse'.

[263] Cf. GdL, p. 268; DLL, p. 49.

[264] A direct object is readily available in *xawales*, an ACC.PL form of unknown meaning. The line on TL44b,17 reads as ⟨[...te]rñ : xawales : dderijemeje : s[...]⟩, where the conjunction *me* after *dderije* indicates that *dderije* stands at the end of the clause.

An apparent formal match is available in Hitt. *tarai-^{hi}/tari-* 'to exert oneself, become fatigued'. Both the radical consonants and the Hittite *dai/tiyanzi*-type conjugation motivate a connection (cf. Lyc. *erije* vs. Hitt. *arāi* '(s)he raises').[265] Note however the apparent full grade in root of the Lycian form, where a zero-grade is expected.[266] A clear semantic relationship is likewise not possible to establish.

5.5.2 *eri*(*jei*)-^{e} 'raise; hold fast'

3SG.PRES.A	*erije*	TL29,7
3SG.PRET.A	*erite*	TL29,9
INF	*erijeine*	TL29,4
INF	*erijeina*	TL29,7

Meaning with Melchert (DLL, p. 16), chiefly motivated by external comparanda, but see DLL entry for references to other interpretations (e.g. 'hold fast' in Hajnal 1995, p. 119). Note that *erije* has oftentimes not been interpreted as a verb in older scholarship (see entry in GdL, p. 68).

Cognates available in Hitt. *arāi-^{hi}/ari-* and Luw. *ari*(*ya*)[267] 'to raise, rise'. See section 4.1.5 for etymology. Note that the paradigm was completely levelled in Cuneiform Luwian, resulting in a *mi*-conjugating unleniting *i*-stem verb, i.e. 3SG.PRES.A *aritti*.[268] In this respect, Lyc. *erije* is an archaism (likewise per Vernet 2018, p. 368).

5.6 *hi*-conjugating *i/ije*-ablauting verbs

5.6.1 *i*(*je*)-^{e} 'buy'

(3SG.PRES.A	*ije*	N324,6)
3SG.PRET.A	*ijetẽ*	TL40c,6 | TL48,4 | TL78,2(.4)

Meaning established by Melchert (1989, p. 44) in comparison to HLuw. *i*(*ya*)*sa-* 'to buy' (with the imperfective suffix *-s-*).[269] Note that the 3SG.PRES.A attestation consists of a tenative reading in an obscure context,[270] and *i*(*je*)-^{e} could as such potentially be an

[265] Cf. Oettinger 1979b, pp. 474f; EDHIL, pp. 833.

[266] If a connection is to be maintained, accent retraction to a syllabic */r/ is an alternative solution, by which the accented epenthetic vowel is reflected as Lyc. ⟨e⟩. Cf. the vowel *-a-* in *tarbidi* '(s)he overpowers', section 5.1.5.

[267] Note that the verb is only directly observable in Cuneiform Luwian. In Hieroglyphic Luwian the logogram PUGNUS is likely to represent it, e.g on KARKAMIŠ A11a §4 (Hawkins, 2000, p. 95).

[268] A notable exception is to be found in the 3SG.IPV.A *ariyaddu*.

[269] Cf. also Mil. *ijeti* (TL44c,61).

[270] N324,6: ⟨[...]inale : ijedñne[...]⟩.

unleniting *e*-stem, i.e. *ije-*^{ti}.

Melchert (ibid.) connects the Luwic verb to Gk. αἴνυμαι 'to take', TochA. *e-*, and TochB. *ai-* 'to give', reconstructing a PIE root **ai-*. LIV similarly reconstructs PIE **h₁ai-* (p. 229). While the non-Anatolian forms allow a radical reconstruction **h₂ei-*, the questionable PIE */a/[271] in the root is motivated by the lack of a laryngeal reflex in the Luwic verb and Hitt. *pāi-*^{hi}*/pi-* 'to give', which is commonly reconstructed as the preverb *pe* + the reflex of **(h₁)ai-*.[272] However, apophonic PIE **-a-* and the problematic etymology of Anatolian 'to give' (cf. section 4.1.4) motivate the search for an alternative etymology.

The 'to give' problem is removed in the reconstruction of *pije-*^{ti} followed here (rather athematic *i*-stem of PIE **h₁ep-*, see section 4.1.4 and Kloekhorst 2006a). Furthermore, following the Anatolian laryngeal developments postulated by Kortlandt (2010), */h$_2$/ is lost the sequence **#h₂o-*. Under this analysis, there is no obstacle to simply reconstructing the predictable *hi*-conjugating stem **h₂(ó)i-* for Lyc. *i*(*je*)-^{e}. The laryngeal is accordingly lost by regular developments in the singular forms (i.e. Lyc. *ije* < PL **(ʔ)iə* (with analogical root vocalism *-i-* from e.g. the singular, cf. section 4.1.5) < PA **ʔóiᵉ* < PIE **h₂ói-ei*). As such, we can maintain an etymological link to Gk. αἴνυμαι, TochA. *e-*, and TochB. *ai-* without having to postulate a root with apophonic PIE **-a-*.

5.7 Other *i*-stem verbs

The following verbs cannot be assigned to either subclass due to lack of diagnostic information provided by the available material. The same holds true for sections 6.6 and 7.4.

5.7.1 *ddali-* '?'

3SG.PRES.A	*ddali*[.]*i*	TL35,15

A very obscure word with no proposed meaning. Tentatively analysed as verb in both DLL, p. 9 and GdL, p. 37. So also here for syntactic reasons; position in the end of the clause (before conjunction *se*) typical for verbs and the verb is preceded by nouns in the accusative case.[273] Although the missing consonant in the ending prohibits any classification beyond an *i*-stem, both Neumann and Melchert emend as ⟨dali[d]i⟩. There is to my knowledge no good comparanda available.

[271] For the dubious existence of PIE */a/, see most prominently Lubotsky 1989.

[272] So then also for Lyc. *pije-*^{ti} 'to give'.

[273] The clause on lines 14 and 15 reads as *se kbi parttalã xzuna sidi ddali*[.]*i*, and the conjunction ⟨se⟩ immediately follows it. Cf. the reminiscent construction in example (13) in section 5.2.2. The same rationale applies here.

5.7.2 *lawi-* '?'

3SG.IPV.M/2PL.IPV.M/3PL.IPV.M	*lawitẽnu*	TL107a,2

No apparent consensus on semantics.[274] Correct grammatical analysis also impossible to establish. See section 3.3.10 for discussion. Possibility of 3PL.IPV.M blocks clear classification as unleniting.

5.7.3 *maxi(t)-* '?'

2PL.PRES.A/3SG.PRES.M/3PL.PRES.M	*maxitẽni*	TL26,5

Very obscure word. Place of attestation and possible interpretations discussed in section 3.3.4. If analysed as 3SG.PRES.M, to be classified as a C-stem ending in *-t*. *Non liquet*.

6 The *a*-stems verbs

6.1 *a/ai*-ablauting verbs

6.1.1 *a(i)-^{di}* 'do, make'

1SG.PRET.A	*axa*	TL44c,4
1SG.PRET.A	*axã*	TL44c,18
1SG.PRET.A	*agã*	TL149,13
1SG.PRET.M	*axagã*	TL44c,4
3SG.PRES.A	*adi*	frequent
3SG.PRES.A	*edi*	TL56,3 | TL118,6
3SG.PRET.A	*ade*	frequent
3SG.PRET.A	*adẽ*	frequent
3SG.PRET.A	*ede*	TL21,4
3PL.PRES.A	*aiti*	TL44c,17
3PL.PRET.A	*aitẽ*	N320,9.22.30-31 | N334,10

Abundantly attested and with established meaning.[275] However, the etymology of Lyc. *a(i)-^{di}* is not as easily determined. An outline of the debate follows below.

Firstly, cognacy must be established. Luwian has two cognate stems *a-* and *aya-* (often cited under one lemma, i.e. *a(ya)-*, e.g. CLL, p. 3), corresponding to the Lycian singular

[274] Cf. GdL, pp. 183 for references. Suggestions range from 'to protect' to 'to die'.

[275] Cf. GdL, p. 1; DLL, p. 2.

and plural stems respectively. Thus, we are licensed to reconstruct two PL stems: *a-^{di} and *aia. Furthermore, Hitt. ie/a-^{mi} 'to do, make' is usually also cited as cognate.

Following Kronasser (1966, p. 74), Melchert (1984, pp. 159) connects the Anatolian verbs to Gk. ἵημι 'to throw' and TochA. *ya-* 'to do, make' with a radical reconstruction PIE *ieh_1-.[276] His scenario to generate the stems *a-* and *aya-* proceeds as follows: the input forms show the apophony 3SG *$iéh_1$-ti : 3PL *ih_1-$énti$. As such, we generate the PL forms 3SG *adi : 3PL *$ianti$. Here, the initial *a-* of the singular is spread to the plural, giving 3SG *adi : 3PL *$aianti$.[277] The stem of the plural is subsequently spread to the singular, yielding e.g. CLuw. 2SG.PRES.A ⟨a-a-ya-ši⟩ (KBo IX.141 i 16).

Melchert's scenario has some flaws. First, it essentially postulates two separate paradigmatic levellings. Secondly, it is questionable that an apparently unacceptable alternation 3SG *adi : 3PL *$ianti$ would be resolved with spread of the *a-*: complete levelling giving 3SG *adi : 3PL *$anti$ is to my mind more likely.

Kloekhorst (EDHIL, pp. 381f) notes that the Hittite verb conjugates in the 1SG with a stem *iya-* (not **iye-*), questioning the input assumed above in a root formation $Hi(é)h_1$-. Furthermore, he questions the semantic link between 'to do, make' and 'to throw'. The Hittite verb rather points to a *ié/ó-*formation, and Kloekhorst thus reconstructs a stem PIE **HH-ié/ó-* of a hitherto unknown root. With this input, Kloekhorst assumes a Luwian reflex *ʔəia-*. This is then sporadically contracted to the stem *a-*.

While Kloekhorst's scenario is valid for Hittite, it does not work for Luwic. First, we would have to assume a very early accent retraction (to **HH-*?) to account for lenition. Secondly, it is questionable that **#HH-* would give *#a-* in Lycian.[278] Kloekhorst's semantic gripes are to my mind valid concerning Gk. ἵημι 'to throw', but TochA. *ya-* 'to do, make' should still be viewed as valid comparandum.

Yakubovich (2008, pp. 65f) rejects Melchert's account on the basis of both variants *a-* and *aya-* occuring within the same text[279], invalidating the postulated spread of the variant *aya-* through time. Rather, he analyses them as aspectual variants. As such, *aya-* is the reflex of Pre-PL **yāyā-*, a reduplicated variant of **yā-* (< PIE *ieh_1-).[280]

While Yakubovich's scenario is to my mind the one which currently best explains

[276] Usually given with an initial laryngeal (**Hieh*$_1$-) to explain the Greek reflex, cf. LIV, p. 225.

[277] Although not explicitly stated by Melchert, this would optimally be the point were Lycian and Luwian split off, since Lycian has no singulars with a stem reflecting PA **aia-*.

[278] Extrapolating the postulated outcome in Luwian, *ʔəia-* to Pre-PL, we get PL **ʔə̯i̯i-* in the singular. This would would be reflected as Lyc. ***iti* (< **əiti* < **ʔə̯i̯ti-* < **ʔəietfi* < PIE **HH-ié-ti*).

[279] For HLuw. both 3SG.PRES.A ⟨á-ia-ti-i⟩ and 3SG.PRET.A ⟨á-tà⟩ on SULTAHAN. For CLuw. both 3SG.PRET.A *ata* and *ayata* on KBo XIII.260.

[280] To Yakubovich, the loss of intervocalic */i/ is problematic to his scenario, and refers to functional reasons for its preservation in *aya-*. However, this to my mind not a problem: the innovation of the reduplicated variant can be postulated to occur after said sound law.

the observable facts, questionable points still remain. While Luwian apparently permits both stems for the singular, it is somewhat unexpected that Lycian would never take the reduplicated stem in the singular, and vice versa for the plural. Perhaps we have to reckon with secondary petrification of the reduplicated stem as a plural stem in Lycian (Lyc. *ai-* < **áia-* through syncopation), although the motivations for this are not fully clear.[281] Moreover, Kloekhorst's observations still hold; it is troubling that the Luwic and Hittite stems remain impossible to connect to a single prehistoric stem formation.

Concludingly, Yakubovich's scenario will have to hold for now, but the issue remains one of the most pressing open questions of contemporary Anatolian linguistics.

6.1.2 *maza(i)-^{di}* 'dare / forbid / allow (?)'

3PL.PRES.A	*mazaiti*	TL149,14

Meaning very unclear.[282] Semantic sphere similar to related verb *ma-^{ti}*, section 6.3.7. Given the tentative relation to *ma-^{ti}* and nominal agentive suffix *-za-*,[283] likely to be denominal formation to unattested agent noun **maza-*. See section 4.2.1.

Per Neumann (1985, p. 24) to be compared to CLuw. *mazzalasa-* 'to be patient'. So also per Serangeli (2018b, pp. 176f), and by extension with Hitt. *maz-^{hi}* 'to resist; dare', with meaning in Lycian 'to dare'.[284] The semantic grounds for any connection remain weak, however.[285]

6.1.3 *muna(i)-^{di}* 'forbid (?)'

3PL.PRES.A	*munaiti*	TL90,3

Meaning per Hajnal (1995, p. 153), who in turn follows Meriggi (1928). As such, to be compared to Hitt. *munnae-^{mi}* 'to hide', which per Oettinger (1979b, pp. 161f) is cognate to Gk. μύ́ω 'to close eyes', indicating a radical reconstruction PIE **meuh$_3$-*. Kloekhorst (ED-HIL, pp. 587f) reconstructs a nasal-infixed paradigm **mu-n(é)-h$_{2/3}$-*.[286] This would yield a 3SG.PRES.A Lycian form **munadi*[287], on the basis of which a 3PL.PRES.A form *munaiti*

[281] It is conceivable that the notion of *verbal plurality* often inherent in imperfective morphology and reduplication has led to a reanalysis as *subject plurality*. Otherwise, it is possible that a formal matching to the *i/ei*-ablauting stems were made, motivating the adoption of the likewise diphthongal imperfective stem *ai-* as the plural stem.

[282] See references in GdL, pp. 197f.

[283] See footnote 128.

[284] Thus to the PIE root **meh$_3$d^h-* found also in Germanic: Got. *modags* 'angry', OE *mōd* 'courage' (Kloekhorst, 2008, pp. 566f).

[285] So also per Melchert (DLL, p. 37).

[286] The *hatrae*-type conjugation is per Oettinger (1979b, pp. 161f) secondary.

[287] At least if the laryngeal is */h$_2$/.

could have been innovated (Hajnal, 1995, p. 153), cf. section 4.2.1. However, the motivation for such an analogy remains unclear: the expected form **munãti* form would not per se have been unacceptable, cf. e.g. 3SG *tadi* : 3PL *tãti* to (*t*)*ta-*^{di} (section 6.2.4).

The semantic relationship between concealment and prohibition is not entirely clear. Perhaps 'to close eyes' > 'to avert gaze' > 'to forbid (vel sim.)'? *Non liquet*.

6.1.4 *m̃ma*(*i*)-^{di} 'erect (of a building)'

3PL.PRET.A	*m̃maitẽ*	N320,7

Given translation informed by the corresponding Greek form *ἱδρύσασθαι* (INF.AOR.M to *ἱδρύω* 'to establish, settle, erect') on the trilingual. See section 5.1.4 for discussion.

6.1.5 *xba*(*i*)-^{di} 'irrigate'

3PL.PRET.A	*xbaitẽ*	N320,14

Meaning secured since Laroche (1979, p. 68). Probably related to Mil. *xbade/i-* (see DLL, p. 135, and certainly to the extensive Anatolian *hapa*-family, concerning rivers etc.[288]

Pace Melchert (DLL, p. 82), not directly related to Hitt. *hapae-*^{mi}; on account of Hitt. *hapa-* 'river' reflecting an *o*-stem,[289] *hapae-*^{mi} is most likely a *hatrae*-type verb, a denominative *o-ié/ó*-stem formed to an *o*-stem noun. Lyc. *xba*(*i*)-^{di} is thus more likely an independent denominative formation, formed to a collective *a*-stem from the same root.[290] Considering the lenition in HLuw. ⟨('FLUMEN')há-pa+ra/i-sá⟩ and CLuw. *hapātin* ⟨ḫa-pa-a-ti-in⟩ 'irrigated land' (CLL, p. 55), we have indirect evidence of the *a*-stem base of the Lycian verb.

6.1.6 *xla*(*i*)-^{di} 'enclose; take control of (?)'

3SG.PRES.A	*xladi*	N324,28
INF	*xlaina*	TL44a,50

Meaning highly tentative, since both occurances are in rather obscure contexts.[291] Likely radically connected to *xal-*^{tti} 'to control' (section 9.1.4). Possibly denominative to an

[288] E.g. CLuw. *hāpa/i-* 'river', HLuw. *habat*(*i*)- (often with the logogram FLUMEN.REGIO), Hitt. *hapa-* 'river', Hitt. *hapae-*^{mi} 'to pour'.

[289] Cf. the *i*-mutating noun *hapa/i-* in Luwian, e.g. NOM.SG.C CLuw. *hāpis* (KUB XXXV.107 iv 22). Nouns which display *i*-mutation cannot come from *a*-stems.

[290] Likely reflecting virtual **h*$_2$*eb-éh*$_2$-, on account of Hitt. *hapa-* reflecting **h*$_2$*eb-o-*, see EDHIL, pp. 294f.

[291] Meaning 'to take control of' from DLL, p. 83, meaning 'to enclose' informed by etymological considerations. Very tentative in either case!

unattested noun *$x(V)la$-, which could in turn be connected to Lyc. *xale/i-* 'precinct (?)' and Hitt. *hāli-* 'pen, enclosure'.[292]

Direct cognacy to Hitt. *halā-^{hi}/hali-* 'to set in motion'[293] is unlikely; a *dai/tiyanzi-*type verb in Hittite is expected to be reflected by either a *ije/i-*ablauting or unleniting *e-*stem (cf. *pije-* 'to give', section 7.2.6, and *pibi(je)-^{ti}* 'to give', section 5.4.1).[294] It is possible that the puzzling CLuw. verb *hālā-* '?' is connected (see CLL, p. 46), but this remains tentative.[295]

6.1.7 *xtta(i)-^{di}* 'do violence to (vel sim.)'

3SG.PRES.A	*xttadi*	frequent
3SG.PRET.A	*xttade*	N320,36-37
3PL.PRES.A	*xttaiti*	TL45b,5

Semantic field probably *destruction*, cf. GdL, p. 135. Inner-Lycian cognates in *xtta-* 'harm (vel sim.)' and *xttba-^{di}* (potentially both verb and noun, cf. section 6.2.5). Most likely related to Luw. *hatta-*family[296] and Hitt. *hatt-$^{a(ri)}$* 'to pierce, engrave', per Kloekhorst (EDHIL, pp. 300f) reflecting a PIE root *h_2et-.

The sequence ⟨[..] xtta : ẽ : adi [...]⟩ 'if one does harm' (TL118,2) seems to indicate a univerbation of a NOM/ACC.PL.N noun *xtta*[297] and the verb *a(i)-^{di}* 'to do' (section 6.1.1).[298] This has ramifications for our conception of the *a/ai-*ablauting class (see section 4.2.1), since verb phrase formation with the verb *a(i)-^{di}* is apparently directly observable here.

6.2 Leniting *a*-stem verbs

6.2.1 *alaha-^{di}* 'transfer'

3SG.PRES.A	*alahadi*	frequent
3PL.PRES.A	*alahãti*	TL11,3e | TL112,5

Meaning suggested and convincingly argued for by Melchert (2015). Per Melchert radically cognate to *ha-^{di}* 'to release, let go'. Element *ala=* connected to Lyd. *aλa* 'other' and

[292] Direct denomination to *xale/i-* is unlikely. In such a case a *a/ai-*ablauting stem would be puzzling. Assuming an additional *a*-stem for Luwic is relatively unproblematic (see footnote 128).

[293] Cf. Serangeli 2018b, pp. 181ff

[294] See however Serangeli 2015 and 2018b, pp. 181ff for an interesting proposal on how to connect the forms semantically.

[295] Perhaps we are dealing with a *manāti-*type formation (footnote 140), i.e. *h_2l-(é)h_2-.

[296] E.g. CLuw. *hatta-* 'violent blow', *hattay(a)-*, HLuw. *hatastar* 'violence'. See CLL, pp. 63f; Starke 1990, pp. 389f.

[297] Cf. crucially isofunctional CLuw. *hatta* (CLL, p. 63).

[298] Per Hajnal (1995, p. 155), pace Melchert (DLL, p. 85).

by extension PIE *h_2elieh_2 (cf. Gk. ἄλλος), but the expected outcome in Lycian would be **_xalija-_. Thus, _ala-_ remains enigmatic.

6.2.2 *erida-*^{di} 'remove (?)'

3SG.PRES.A	*eridadi*	TL118,5

Very obscure and may actually be an ABL/INST noun. If a verb, probably with Neumann (1984, p. 95) to be segmented *eri=d=adi*, where *eri=* is a preverb 'away', *=d=* a particle and *adi* the 3SG.PRES.A of *a(i)-*^{di} 'do, make' (section 6.1.1). Provided meaning with Neumann (GdL, p. 67).

6.2.3 *(h)ha-*^{di} 'release (vel sim.)'

3SG.PRES.A	*hadi*	TL84,6
3SG.PRET.A	*hadẽ*	N320,3
3SG.IPV.A	*hadu*	N309d,17
3SG/PL.PRES.A	*hati*	TL106,2 | TL131,5
3PL.PRES.A	*hãti*	TL83,12 | N320,21
3PL.PRES.A	*hhati*	N320,41
3PL.PRET.A	*hãtẽ*	TL44c,4
PTC.ACC.PL.C	*hm̃mis*	N320,3-4

A verb of large semantic reach, specified by various preverbs (cf. GdL, pp. 88f). The basic given meaning is thus approximate, and mostly informed by etymological considerations (see below). Note that there is at least one instance of the verb losing its nasalisation in the plural: on N320, *hadẽ* is attested, proving that on this inscription the verb was leniting, which means that *hhati* in the same text must be a plural form.[299] This renders the two attestations of *hati*, for lack of contextual or syntactic clues, ambiguous with regards to number.

Lyc. *ha-*^{di} presents some etymological difficulties. First of all, it is notable that the presumed Luwian cognate *sa-* is *hi*-conjugating.[300] The expected Lycian cognate is thus expected to be either *hi*-conjugating or unleniting, *not* leniting (cf. section 4.3.2). Furthermore, as demonstrated by Melchert (2015, pp. 160f), the traditional reconstruction with the PIE root *seh$_1$-* 'to release' (LIV, p. 518) is incapable of explaining the *-xx-* in the likely related verb *alahxxa-* (section 6.6.1). The Lycian facts can all be explained

[299] Note also the reduplication present in *hhati*, cf. Heubeck 1985, pp. 43f.

[300] Cf. the CLuw. 3SG.PRES.A form ⟨ša-a-i⟩ (KUB XXXV.28 i 8).

with a radical reconstruction PIE *seh_2-,[301] but this disallows cognacy in Luwian, since a *hi*-conjugating form *$sóh_2$-*ei* ought to have given Luw. **$sāhai$. On account of the difficulties both in root and stem type, we are perhaps better off separating the lemmata: Lyc. *hadi* < *$séh_2$-*ti* vs. CLuw. *sāi* < *$sóh_1$-*ei*. Consequently, the base meaning of the Lycian verb may have to be reconsidered. As it stands, *non liquet*.

6.2.4 (*t*)*ta*-^{di} 'put, place'

1SG.PRET.A	*taxa*	TL44c,18
3SG.PRES.A	*tadi*	frequent
3SG.PRES.A	*ttadi*	N331,2
3SG.PRET.A	*tadẽ*	frequent
3SG.PRET.A	*tetẽ*	TL38,7
(3SG.IPV.A)	*tatu*	TL118,2 | N317,3
3PL.PRES.A	*tãti*	frequent
3PL.PRES.A	*tẽti*	TL102,1
3PL.IPV.A	*tãtu*	frequent
INF	*tane*	TL39,6
INF	*tãne*	TL90,3
INF	*ttãne*	frequent

Meaning unproblematic due to abundant attestation. Often occurs in conjunction with spatial preverbs, e.g. *hrppi* 'on top', *ñte* 'inside', etc. Note that the 3SG.IPV.A attestations above are usually cited as 3PL due to similar constructions with the 3PL.IPV.A elsewhere (e.g. TL75,3), which may or may not be justified. Note reduplicated forms in the 3SG.PRES.A and the infinitive (cf. Heubeck 1985, pp. 41f). For the unlenited endings in the 3SG.PRET.A and 1SG.PRET.A, see section 3.1.

Etymological consensus since Pedersen (1945, pp. 31f) is to assign Lyc. (*t*)*ta*-^{di} to the well-known PIE root *d^heh_1- 'to put'. Would as such regularly reflect a root formation 3SG *$d^héh_1$-*ti* : 3PL *d^hh_1-*énti*.[302] Lyc. (*t*)*ta*-^{di} could in principle also reflect PIE *$steh_2$- 'to stand', but transitive semantics and a Hittite cognate in *tezzi* 'he speaks' (with trivial semantic shift) confirms *d^heh_1- as the correct radical reconstruction.[303]

[301] Note that with such a reconstruction, cognacy with Skt. *ava/vi sā-* 'to unbind' (LIV, p. 518) may be safely maintained.

[302] Whereas paradigmatic levelling of the stem formant in favour of the singular was required earlier, the PA sound law *enT > *anT established by Kloekhorst (2013a) renders the 3PL forms completely regular. See footnote 113.

[303] Cf. also Morpurgo-Davies 1987, p. 223-227, with similar arguments for choosing *d^heh_1-, but with invalid proposed generalisation of the plural stem vocalism due to ill-conceived development PIE *eh_1C > *$\bar{e}C$

6.2.5 *xttba-*^{di} 'do violence to (vel sim.)'

3SG.PRES.A	*xttbadi*	TL44b,10 | TL149,7

Also analysed as a INSTR/ABL of the noun *xttba-* by Melchert (AHP, p. 85), but the context on TL149,7 seems to indicate a verb (Heubeck, 1981, p. 171). Likely related to *xtta(i)-*^{di} of similar meaning (6.1.7). May like *xtta(i)-*^{di} be univerbation with *a(i)-*^{di}, but is perhaps more likely to be denominal to the noun *xttba-*. Unlike in the case of *xtta(i)-*^{di}, *xttba* is not a declined form, since it takes the accusative *xttbã* (e.g. TL89,3).[304]

6.3 Unleniting *a*-stem verbs

6.3.1 *asa-*^{ti} 'favour, bless, love'

3SG.PRES.A	*asati*	TL44b,37

Meaning with Schürr (1997, p. 61) and by extension DLL (p. 6). To be connected with HLuw. *aza-* 'to love', licensing a PL reconstruction **Vca-*^{ti} 'to love, favour'. Thus incompatible with Hitt. *āss-*$^{a(ri)}$ despite superficial similarity (PL **-c-* ≈ Hitt. *-ss-* is not valid).

6.3.2 *hãxxa-*^{ti} 'clean (?)'

3SG.PRES.A	*hãxxati*	TL84,4

An obscure verb without established meaning. Proposed meanings include 'to intend', 'to plan', etc. (cf. GdL, p. 90). Per Serangeli (2018b, pp. 149f) a positive meaning is indicated by the choice of tense.

A decent formal comparison is available in Hitt. *sa(n)h-*^{mi} 'to seek, avenge; sweep', pointing to a radical reconstruction PIE **senh₂-* (cf. OHG *sinnan* 'to strive after', Skt. *sanóti* 'to win, gain'). While the Hittite verb is derived from a root formation, the Lycian verb must either go back to a *éh₂*-denominative/factitive of the same root (i.e. **sonh₂-éh₂-*) or a conflation between the singular and the plural.[305] The geminate *-xx-* remains without satisfactory explanation, however.

A link is essentially rejected by Serangeli (2018b, p. 150), since the Hittite meaning 'to avenge' is not compatible with a positive context. However, the Hittite verb is polysemous; if we assume a meaning like 'to clean' in Lycian, corresponding to the Hit-

> PL **iC*. All forms are in fact regular.

[304] Heubeck (1981, p. 171) still analyses it as *xttbã* + *adi*, however.

[305] PIE **snh₂-énti* > Lyc. **hãxãti* (vel sim.)

tite meaning 'to clean, sweep'[306], an etymological connection is possible. Note however the tentative nature of this etymology; the formal and semantic match is by no means perfect. See example (15) for the relevant passage with this translation.[307]

(15) **TL84,3-4**
⟨sedadẽ : hrm̃mã : ijase : atlahi : mepẽtihãxxati : mluhidaza⟩

se=ede *a-dẽ* *hrm̃m-ã* *ijas-e*
CONJ=3SG/PL.NOM/ACC.N make-3SG.PRET.A temenos-ACC.SG.C ?-DAT/LOC.SG
atlah-i *me=pe=ẽ=ti* *hãxxa-ti*
self.GENADJ-DAT/LOC.SG PTCL=PTCL=ACC.SG.C=PTCL clean-3SG.PRES.A
mluhidaz-a
?-DAT/LOC.SG

'He made it a temenos for his own *ijas*. One will clean it (the temenos) for the *mluhidaza* [...]'

Note that the analysis presented here must be viewed as tentative, owing much to the obscurity of the passage at large.

6.3.3 *hijãna-^{ti}* '?' (false verb)

1SG.PRET.A	*hijãnaxã*	TL44b,24

Tentatively analysed as a verb by Melchert (DLL, p. 23). Furthermore, meaning 'to unite' given by Serangeli (2018b, pp. 150f). Specifically, she reads *hijãnaxã* as a univerbated verb consisting of *hijãn-* 'one' (cf. Hitt. *sian* '1' ACC.SG) and the 1SG.PRET.A of *a*(*i*) 'to do, make'.

Lyc. *hijãnaxã* cannot be a finite verb as such. This can be determined thanks to the analysis of Adiego (2015), for which see section 3.2: nasalised verbs only occur at the head of a clause or immediately following *se* or *me* (with or without particle chains). Lyc. *hijãnaxã* appears in a fragmentary context, and is directly preceded by [*m*]*erehi*, which is certainly not a particle chain.[308] Consequently, *hijãnaxã* is most likely not a

[306] In HED[10], pp. 123ff, the meanings 'to flush, sweep' are given. Likewise, in CHD[ša1], pp. 168ff, 'to clean' is given. Cf. the Hittite passage ⟨nu=kan ALAM.ḪI.A ša-an-ḫu-un⟩ 'I cleaned the statues' (KBo XV.10 iii 45), reminiscent of the use in (15).

[307] It should be noted that the passage is riddled with translatory insecurities. E.g. *mluhidaza* can be either DAT.SG, DAT.PL, or NOM.SG, all altering the meaning significantly. The initial string *mepẽti* can also be interpreted in various differing ways with major consequences. The main point is that *hãxxati* denotes a positive action to be performed on the temenos.

[308] TL44b,24: ⟨[...m]erehi : hijãnaxã : heledije[...]⟩.

verb. The sequence should rather be read either as a ACC.SG form of a nominal *a*-stem or as a separate (accented) word (*hijãn*) followed by the verb *a*(*i*)-^{di} (similar to the analysis of Serangeli, but no univerbation).

6.3.4 *hrmaza-*^{ti} 'act as *hrmaza* (?)'

1SG.PRET.A	*hṛṃazaxa*	TL29,8

Note that the only attestation of this verb is slightly broken. However, judging from the facsimile in TL, p. 27, any other emendation than the one provided seems unlikely.[309] Note however the puzzling spelling with non-geminate *-m-*; the expected form would be ***hrmmazaxa* (cf. van den Hout 1995b, p. 115).[310]

It seems plausible that *hrmaza-*^{ti} is denominative to an unattested agent noun **hrmmaza*, in turn formed to the noun *hrmma-* 'temenos' (cf. e.g. *kumaza-*^{ti} 'to perform a sacrifice' 6.3.5).[311] Hence the provided meaning 'to act as *hrmaza*'.

6.3.5 *kumaza-*^{ti} 'perform a sacrifice'

3SG.PRES.A	*kumazati*	TL84,6

Meaning with Melchert (DLL, p. 33). Intransitive counterpart to *kumez*(*e*)*i-*^{di} (section 5.1.2). Clearly denominal to *kumaza-* 'priest'.

Neumann (GdL, p. 176) allows for the possibility of a segmentation *kumaza=ti*, where *kumaza* is a NOM.SG noun and *=ti* a relative pronoun. This is unlikely, given that *kumazati* is the only possible verb in the clause.[312]

6.3.6 *la-*^{ti} 'be dead'

3SG.PRES.A	*lati*	TL2e | TL88,2 | TL112,2 | (TL75,4)

Meaning secured since Thomsen (1899, p. 21, *non vidi*), see GdL, p. 180. Note that the attestation on TL75 is broken and obscure, and may belong to *le-* 'to allow, grant' 7.4.3. In

[309] Half the ⟨r⟩ and half the ⟨m⟩ are illegible. However, the ⟨r⟩ is too rounded to plausibly be an ⟨a⟩. The suggestion of Schürr (2001, p. 134) to read as *haxlazaxa* is thus unattractive.

[310] There is to my knowledge no phonemic opposition between *hrm-* and *hrmm-*, however.

[311] Given the context, where the object is *mmaja* (NOM/ACC.PL of 'building'), a verb concerning the keeping or instatement of a temenos is plausible. Cf. example (12) in section 5.1.3.

[312] The passage reads as ⟨meine : kumazati⟩. The clause is surely closed, since the next line begins with the sentence initial particle *me*. To my mind, the only reasonable reading is *me=i ne kumazati* '(s)he will/does not perform a sacrifice for him/her'.

Lycian, related words are found in *lãta* 'dead one',[313] and *lataza* '(member of) the dead'. Luwic comparanda is available in the extensive Luw. *wala*-family.[314]

Per Hajnal (1995, p. 84), Lyc. *la-*^{ti} is denominal to a τομή-type noun *$g^{w}olH$-$éh_2$- 'death' (see LIV, p. 207 for verbal root). This fits well with other the etymologies of other unleniting *a*-stems, cf. e.g. *sm̃ma-*^{ti} (section 6.3.11). Furthermore, the base noun may underlie the HLuw. adverb *wala*[315] 'fatally', and an identical verb *wala-* exists in HLuw. The etymology presupposes that Lycian syncopated the first vowel and that the Pre-Lyc. sequence *#*wlV-* yields Lyc. *#lV-*.

6.3.7 *ma-*^{ti} 'allow, command, decide (?)'

1SG.PRET.A	*maxã*	TL44a,16
(1SG.PRES.M	*maxani*	TL45b,10)
3SG.PRES.A	*mati*	TL49

Meaning not entirely clear. Since Torp (1898a, p. 32) 'to allow', but cf. also Ševoroškin (GdL, p. 189) 'to decide, command'. Context does not allow for a clear decision between the two, and the only attestation occurring in a complete sentence is *mati*. The same attestation is also the only place where *mati* is observably a finite verb; *maxã* and *maxani* may formally be nouns. In the case of *maxã* we can use the rules established in section 3.2 to determine if it is possible that it is a finite verb. Since it directly follows the conjunction *se*,[316] a verbal reading cannot be excluded; nasalisation is expected in this position (see section 3.2). That *maxã* is not a noun of unknown meaning cannot be established beyond doubt, however.

Note that *mati* on TL49 is sometimes analysed as *pemati*, following the segmentation in TL, p. 51 (*nepemati*, where *ne* is a negation).[317] However, it remains unclear what verb *pema-*^{ti} would be. A preverbial form *pe=mati* (cf. Hitt. *pe=* 'away, thither') is not possible; the Hittite form must go back to a diphthongal *(h_1)*poi* (Eichner 1973, pp. 78f; Kloekhorst 2008, pp. 660f), which would give Lyc. **pi=* (cf. *erite* < *h_3r-ói-*). Thus, the segmentation as *nepe mati* suggested by Houwink ten Cate (1961, p. 92) is more likely.[318]

[313] Corresponding to CLuw. *walanta/i-/ulanta/i-* (CLL, p. 250), a participial form meaning 'dead'.

[314] Examples include CLuw. *walanta/i-/ulanta/i-* 'dead', HLuw. *wala-* 'to die', HLuw. *walanu*(*wa*)- 'to kill'.

[315] Attested on KULULU 5 §8, see CHLI^{1}, p. 486.

[316] The line TL44a,16 scans as ⟨[...]ekebura : sewe : maxã : e[...]⟩. Preceding *sewe* is an initial particle chain consisting of the conjunction *se* and the speech particle *=we* (cf. Hitt. *=wa*(*r*)).

[317] Cf. e.g. DLL, p. 49

[318] The sequence *nepe* is to be segmented as *ne=pe*, where *ne* is a negation and *=pe* an emphasising enclitic, cf. Luw. *=pa* and Lyc. *trqqas=ppe* (TL44b,37).

No etymological scenario is evident. As an unleniting *a*-stem, a denominative formation from an unattested noun **ma*- would have precedent. The shape of the verb also invites a root verb of the structure **m*(*é*)*H*-, but if so the unleniting endings must be secondary (not impossible, cf. 3.1). Unclear semantics makes any comparison less strong. Very (!) tentative comparisons available in DorGk. μᾱνύω 'to indicate', OCS *po-manǫti* 'to wave' (root PIE **meh*$_2$, cf. LIV, p. 425)[319] and Ved. *mímīte* 'measures' (root PIE **meh*$_1$, cf. LIV, pp. 424f).[320]

6.3.8 *pabra-*^{ti} 'urge (?)'

3SG.PRES.A	*pabrati*	TL44a,51

Given meaning per Melchert (DLL, p. 47), but certainly disputable (cf. GdL, p. 255). Translation informed by comparison to CLuw. *par*(*h*)- 'to drive' (and reduplicated variant *papra*-), and in turn to Hitt. *parh-*^{mi} 'to chase' (< PIE **b*^{h}(*é*)*rh*$_2$-, LIV, p. 81). Since regular developments would have given Lyc. ***pebarti* (< **b*^{h}-*b*^{h}-*érh*$_2$-*ti*[321]), Serangeli postulates paradigmatic levelling in favour of the plural stem: Lyc. **pabrãti* < PIE **b*^{h}*é-b*^{h}*rh*$_2$*-nti*.[322]

Melchert (2016, pp. 203ff) reconstructs CLuw. *par*(*a*)- and *papra*- (as separate from Hitt. *parh-*^{mi}) as formed to the PIE root **b*^{h}*er*- 'to carry' (LIV, pp. 76f). The Lycian word could possibly be connected to the same etymon. This presupposes that a semantic link can be established in future research, made more difficult by the general obscurity of TL44.

6.3.9 *pema-*^{ti} (false verb)

See section 6.3.7. Lyc. *pema-*^{ti} is the result of a frequently quoted segmentation not favoured in the present thesis.

[319] Semantic development 'give sign' > 'give consent' = 'allow' (and related semantic notions)?

[320] Semantic development 'measure' > 'establish' (and related notions such as 'decide', cf. ModEng. *to measure out punishment*)?

[321] With the sound law PIE **eRT* > PA **aRT* as generalisable building on the development established by Kloekhorst (2013a), see footnote 113. Cf. *martti* '(s)he commands' (section 9.1.2).

[322] Primary PIE reduplicated present of the type Ved. *dádhati* < **d*^{h}*é-d*^{h}*h*$_1$*-nti*.

6.3.10 *prñnewa-^{ti}* 'build'

1SG.PRET.A	*prñnawaxã*	TL40c,8
3SG.PRES.A	*prñnawati*	TL109,6 | TL110,3e | TL111,6
3SG.PRET.A	*prñnawate*	frequent
3SG.PRET.A	*prñnawatẽ*	highly frequent
3SG.PRET.A	*prñnawetẽ*	TL13,2
3PL.PRET.A	*prñnawãtẽ*	TL6,1 | (N317,1)
3PL.PRET.A	*prñnewãtẽ*	TL12,1

Meaning uncontroversial.[323] The most frequently occuring verb in Lycian and part of the canonical opening formula of Lycian epitaphs. Note the several umlaut-variants, of which *prñnewãtẽ* (*e - a - e*) represents the oldest layer.[324] Therefore, the lemma is given here as *prñnewa-^{ti}* as opposed to the commonly cited *prñnawa-*.

Inner-Lycian related words are found in *prñnawa-* '(grave-)house, mausoleum'[325], *prñneze/i-* 'household', and *prñnezi(je)-* 'household member'. Radical cognates in Anatolian include Hitt. *pēr/parn(a)-* and Luw. *parna-* 'house' (PIE **Pér/Pr-n-*, see EDHIL, p. 666).[326]

Additionally, there is a formally identical verb *parnawa-* 'to be of service' in Hieroglyphic Luwian.[327] However, although a PL stem **prnəua-^{ti}* is formally reconstructable, Lyc. *prñnawa-^{ti}* and HLuw. *parnawa-* are not semantically compatible: none of the two meanings is possibly derived from the other.[328] This points to two separate derivations in the two languages, i.e. there was no PL verb **prnəua-^{ti}* of either meaning.

It seems likely that in Lycian the verb *prñnawa-^{ti}* is denominal to the noun *prñnawa-*. However, Lyc. *prñnawa-* is clearly not a primary word for 'house' on account of Luw. *parna-* 'house', and rather reflects a derived formation.[329] Note also that Lyc. *prñneze/i-* 'household' and *prñnezi(je)-* 'household member' cannot be derived from *prñnawa-*. What then is *prñnawa-*? One attractive proposal is to analyse it as an *a*-stem abstract

[323] Cf. GdL, pp. 384f; DLL, p. 51.

[324] It is well known that *a/u*-umlaut precedes *e/i*-umlaut (Melchert 1992b; Rasmussen 1992), and it logically follows that the sequence *e - a - e* must be the oldest since it is the only one which can generate all other attested sequences with the application of umlaut.

[325] Term used for a certain type of grave (Seyer & Eichner, 2019).

[326] The Luwian cognate has clearly generalised the weak stem **pr-n-*.

[327] Attested as ⟨('CRUX.DOMUS')pa+ra/i-na-wa/i-tu$_4$(-u)⟩ (3PL.IPV.A) on KARATEPE 1 §LVIII. The translation as 'to be of service' is confirmed by the Aramaic version (CHLI^1, p. 56).

[328] Neither a development 'to build' > 'to serve' nor 'to serve' > 'to build' is to my mind acceptable.

[329] Possibly substantiated by *prñnawa-* being a technical term, see footnote 325.

noun formed to a *uo*-stem[330] (virtual) **pr-no-uo-*, akin to *arawa-* 'freedom' and the base to *xñtawa-^{ti}* 'to rule' as proposed by Hajnal (cf. section 6.3.15).[331] It is impossible to decidedly determine whether or not HLuw. *parnawa-* is deadjectival to the hypothetical adjective or to its abstract noun due to the Luwian merger of PL */ə/ and */a/.[332] Above scenario is certainly not final,[333] but at the very least it seems highly likely that Lyc. *prñnawa-*—and by extension its corresponding verb—is not an archaic formation.

6.3.11 *sm̃ma-^{ti}* 'bind, enjoin; command, forbid'

3SG.PRES.A	*sm̃mati*	frequent
3SG.PRET.A	*sm̃mate*	TL29,4.7 | TL44b,12
3PL.PRES.A	*sm̃mãti*	N337,11

Basic semantic domain relatively incontroversial, see GdL, pp. 328f. Primary meaning roughly 'to bind' with secondary semantic shift to notions of responsibility, i.e. 'to make responsible' < 'to make bound'. Highly likely connected to Lycian noun *sm̃ma-* and Milyan adjective *sm̃mete* (TL44d,60-61; DAT/LOC.PL).

Since Gusmani (1979), Lyc. *sm̃ma-^{ti}* is commonly connected to Hitt. *ishiman-* 'cord' (with verb *ishāi-^{hi}*/*ishi-* 'to bind'), in turn from a root **seh$_2$(i)*, cf. Skt. *sā-*, Lith. *siẽti* 'to bind'.[334] A Luwic radical cognate would thus available in Luw. *hishi(ya)-* 'to bind'. As such, Lyc. *sm̃ma-^{ti}* would be a denominative/factitive *a*-stem verb formed to a nominal stem reflecting **sh$_2$i-mn-*. However, the development PL **#sH-* > Lyc. *#s-* is by no means securely established.

A hypothetical outcome of PIE **#sh$_2$-* as Lyc. *#sxx-* is unlikely; the sequence is only attested in the personal names *Sxxulija* and *Sxxutrazi*. If the development is rather parallel to the outcome of **-st-* (i.e. *t-* initially, *-s-* intervocalically, see sections 9.3.1 and 6.3.12), we would rather expect ***x-*. A similar treatment is in fact substantiated in in-

[330] For the function and distribution of the suffix **-uo-*, see Rieken & Sasseville 2014. Apparently, the suffix had semantics relating to social standing. Moreover, the suffix had a contrastive function in PIE according to Oettinger (2017).

[331] See also Starke 1990, p. 183 for a similar analysis.

[332] Likewise it is possible that our hypothetical abstract noun is a post-Luwic Lycian formation. It is perhaps more likely that the Luwian verb is formed to the non-abstract stem; per Rieken & Sasseville (2014), the suffix **-uo-* had semantics relating to social standing. Thus: **pr-no-uo-* 'having a social standing relating to the household' = 'having the social standing of a servant', consequently denominal verb (virtual) **pr-no-uo-* 'to act as a servant' = 'to serve'.

[333] Note for example also the scenario of Serangeli (2018b, pp. 160), in which a neuter *war*-stem **parnawar* (sic) is postulated (cf. Hitt. *partawar-* 'wing'). However, the proposed cognacy of Lyc. *prñnawa-* and HLuw. *parnawa-*, originating in this noun, should in either case be rejected on semantic grounds (see footnote 328.

[334] Per Kloekhorst (EDHIL, pp. 391f) rather athematic *i*-present **sh$_2$-(ó)i-*.

tervocalic position, e.g. by the word equation Lyc. *wasaza-* ≈ Luw. *washazza-* '?'[335] (Laroche, 1967, p. 62), where we see the completely analogous development PL **-VsHV-* > Lyc. *-VsV-*.[336] Notably, a direct example of PA **#sHV-* > PL **H-* is perhaps to be found in Luw. *hishi(ya)-* 'to bind'[337] if from a reduplicated formation (virtual) PIE **sh₂i-sh₂-(ó)i-* (cf. the etymology of *xi-^{ti}* 'to perform an animal sacrifice' proposed here, section 5.3.10).

To conclude, a connection of Lyc. *sm̃ma-^{ti}* to Hitt. *ishiman-* can only be maintained with serious reservations due to the unlikely development PIE **#sh₂-* > Lyc. *s-*.

An alternative possibility is to connect Lyc. *sm̃ma-^{ti}* to the root found in ON *hemja* 'to bind, hem'[338] and TochB. *śánm-* 'to bind' (cf. Adams 2013, pp. 687f). The root is reconstructed with a plain velar in LIV, p. 350, i.e. PIE **kem-*. However, the Old Norse and Tocharian B verbs can on account of centum reflexes be unproblematically derived from a root with a palatovelar, i.e. **ḱem-*, which enables a connection to Lyc. *sm̃ma-^{ti}*.[339] Under this analysis, Lyc. *sm̃ma-^{ti}* is a denominative/factitive formation to a Gk. τομή-type *a*-stem noun *sm̃ma-* < **ḱom-éh₂-*.[340]

6.3.12 *stta-^{ti}* 'stand, be placed'

3SG.PRES.A	*sttati*	frequent
3PL.PRES.A	*sttãti*	TL44b,35

Meaning fairly uncontroversial,[341] but debated etymologically. Although a direct derivation from PIE **steh₂-* 'to stand' is tempting, it presents considerable formal difficulty. The sequence **#st-* is unlikely to give Lyc. *stt-* for a number of reasons. Firstly, intervocalic *-st-* clearly gives Lyc. *-s-*, as seen in *esi* < PIE **h₁és-ti* '(s)he is'. Secondly, inherited PA **#st-* seems to rather be reflected by the correspondance Luw. *t-* and Hitt. *ist-*, e.g. Luw. *tummant-*, Hitt. *istāman-* 'ear' < PIE **stéh₃(u)-mn-*.[342] Cf. also the etymology of *tebe-^{ti}* 'to

[335] Probably some form of title on account of the professional suffix **-za-*. Cf. footnote 128.

[336] Gusmani (ibid., p. 133) in fact based the development of **#sH-* > Lyc. *s-* on exactly the same rationale—analogous treatment to the sequence **-st-*. However, his view was skewed by the to my mind faulty direct derivation of Lyc. *stta-^{ti}* 'to stand, be placed' from PIE **(s)teh₂-* 'to stand', for which see section 6.3.12.

[337] CLuw. 3PL.PRES.A ⟨ḫi-iš-ḫi-i̯a-an-ti⟩ (KUB.IX ii 24), see CLL, p. 70; HLuw. GER ⟨(PUGNUS.PUGNUS)hi-sà-hi-mi-na⟩ (CEKKE §13).

[338] Note also the extended meaning 'to control', reminiscent of the Lycian semantics.

[339] Note that the Armenian cognate *k^{c}anem* 'to press' cited in LIV would have to be discarded. This is no major loss, however, since the exact reconstruction of the stem is unclear (cf. LIV, p. 350) and the semantic connection less attractive than to Lyc. *sm̃ma-*.

[340] In this case, Lyc. *sm̃ma-* would originally mean something like 'binding, connection (vel sim.)' and maybe also by extension 'command (vel sim.)'.

[341] Cf. GdL, pp. 332f; DLL, p. 59.

[342] See EDHIL, pp. 411f. Note that a Lycian reflex *tm̃ma-* may be available in PN *esitm̃mata* on TL35,18 (Neumann, 1983, pp. 146f), in which case Lyc. *stt-* < PIE **#st-* would be demonstrably invalid.

conquer', section 7.2.3. Lastly, a preform **stéh₂-ti* demands that the unleniting ending allomorphy is secondary. Accordingly, a direct origin of Lyc. *stta-^{ti}* from PIE **steh₂-* is to be rejected.[343]

One common analysis is to view Lyc. *stta-^{ti}* as a Greek loan (Morpurgo-Davies, 1987, pp. 220f). However, this view is (correctly) rejected by Jasanoff (2010, pp. 145f) on the grounds that no formally eligible Greek present stem (**στα-) is available. Furthermore, Jasanoff argues that a basic semantic notion such as 'to stand' is unlikely to be borrowed.

Jasanoff rather favours a scenario in which Lyc. *stta-^{ti}* is derived from a "*h₂e*-conjugating reduplicated present", i.e. PIE 1SG **stí-sth₂-h₂e* : 3PL **stí-sth₂-nti* (cf. Ved. *tíṣṭhati* '(s)he stands'), where Lyc. *sttati* is the syncopated reflex of Pre-Lyc. **sitati*, ultimately from the "reduplication variant" **stíth₂-*. As such, Hitt. *tittai* '(s)he stands (trans.)' would be a direct cognate. However, Jasanoff's analysis is problematic in several respects and therefore not likely correct.

Firstly, a large amount of remodeling of the ideal PIE stem form **stí-sth₂-* within Hittite is necessary to yield the form *tittai* from the same preform as Lyc. *sttati*, which weakens the explanation.[344] Secondly, the issue of having the originally *stressed* vowel be syncopated in Lycian is never addressed. Since Jasanoff postulates a static accent on the reduplication syllable, we would have to postulate unmotivated accent *protraction* in some prestage, for which there is no precedent in Luwic at large. Lastly, Jasanoff assumes Lyc. *s-* < PIE **#st-*, which is rejected here (see above).

The analysis proposed here is to view Lyc. *stta-^{ti}* not as a direct loan from Greek, but as a backformation to *sttala-* 'stele', which in turn *is* a Greek loan (< Gk. στήλη). Firstly, Note that the only other instance of a sequence Lyc. *#stt-* (that is not a PN) is the broken attestation ⟨sttrat[]⟩ (TL44b,18), commonly viewed to reflect Gk. στρατηγός (DLL, p. 59), supporting a Greek origin. Furthermore, the Luwic languages possessed an agentive nominal suffix *-la*, as demonstrated by Sasseville (2014). Consequently, *sttala* could easily be synchronically analysed by Lycian speakers as a 'the thing that *stta*'s', licensing a backformed verb stem *stta-^{ti}* 'to stand, be erected/placed (of a building)'.[345] This hypothesis is supported by all instances of *stta-^{ti}* where a subject is overt, that subject is a building.[346] Note finally that—while Jasanoff is right that a basic notion such as 'to stand' is unlikely to be borrowed—stelae are cultural items, the terms for which are

[343] Pace Neumann (GdL, pp. 332f) and Serangeli (2018b, pp. 163f).

[344] Per Jasanoff (ibid., pp. 150f) either *titt-* < **tith₂-* < **stith₂* < **stisth₂*, or *titt-* < **tith₂-* < **tisth₂-* < **stisth₂-*. The former is more likely under Jasanoff's analysis since it necessitates only one PA preform.

[345] It is not surprising that such a backformation would end up in an unleniting class, given that the unlenited endings are productive (see section 3.1). Note also that the unleniting *a*-stem class is the largest of all classes in attested Lycian.

[346] TL44c,5, TL44c7: *sttala*, TL44c,9: *urublijẽ*, TL93,2: *xupa*, N320,16: *𐤎𐤎ẽ*.

well-known to be prone to borrowing.

6.3.13 *xba-^{ti}* 'inflict (vel sim.)'

3SG.PRES.A	*xbati*	TL106,2

To be separated from *xba*(*i*)-^{di} 'to irrigate' on account of lack of lenition and semantics.[347] A notion related to 'to inflict' (per DLL, p. 81) seems likely. See example (18) in section 9.4.1 for context. A Milyan reduplicated cognate is likely to be found in *xixbati* (TL44c,35). There are no other obvious cognates to my knowledge.

6.3.14 *xñta-^{ti}* 'entrust (?)'

1SG.PRET.A	*xñtaxa*	TL45b,3

Occurs in a very obscure context. Meaning given per Hajnal (1995, p. 172) and Melchert (DLL, p. 83), presumably informed by etymological considerations. They both connect Lyc. *xñta-^{ti}* with Hitt. *handae-^{mi}* 'to arrange together', yet differ slightly in their analysis. Whereas Hajnal apparently equates the two verbs etymologically, Melchert sees the Lycian cognate as a recent denominative to an *a*-stem, and the relationship to Hitt. *handae-^{mi}* as merely radical. Per Melchert and pace Hajnal, Lyc. *xñta-^{ti}* and Hitt. *handae-^{mi}* cannot share a proto-form: the Hittite verb belongs to the *hatrae*-type since OH[348] (Oettinger, 1979b, pp. 30ff), reflecting denominatives in PA *-*o-ié/ó-*. The Lycian stem formant *-a-* cannot be yielded from such a preform. Crucially, the Hittite verb does not belong to the *tāye*-type (reflecting *-*eh$_2$-ié/ó-*), with which a direct connection would be at least conceivable (see section 4.2.1). A later inner-Lycian denominative origin is furthermore favoured by the attestation of the base noun, i.e. *xñta* (TL35,17).

6.3.15 *xñtawa-^{ti}* 'rule'

3SG	*xñtawaẹ*[.]	TL26,2
3SG.PRET.A	*xñtewete*	TL11,2

Consensus more or less reached on semantics.[349] Clearly belongs to the **hanta*-family (cf. Lyc. *xñtawata* 'kingship', Luw. *hantawatta/i-* 'king'), ultimately from the well established PIE local morpheme **h$_2$ent-* 'in front, facing, etc.' (cf. also Hitt. *hant-* 'forehead').

The best etymology is perhaps from Hajnal (1995, p. 108): thus from unattested abstract noun **xñtawa*, in turn from virtual PA **Hantawo-* 'having the status of being

[347] All *a/ai*-ablauting stems take lenited endings, see section 4.2.1.

[348] Cf. ⟨ḫa-an-ta-ez-zi⟩ (StBoT 25.52 i 9).

[349] Cf. GdL, p. 128; DLL, p. 84.

in front, royal', a *uo*-stem (with social status semantics, see Rieken & Sasseville 2014[350]). Cf. Lyc. *arawa-* 'freedom' (parallel to **xñtawa*) and notably *prñnawa-^{ti}* 'to build' (section 6.3.10).

6.3.16 *xssaϑrapaza-^{ti}* 'rule as satrap'

3SG.PRET.A	*xssaϑrapazate*	N320,1

Meaning confirmed by Letoon trilingual (GdL, p. 133). Clearly denominative to **xssaϑrapaza-*, i.e. a loan from Iranian, the source word corresponding to OP *xšaçapāvan-* 'satrap' (cf. Kent 1953, p. 181), with an added proffesional suffix in *-aza-* (Laroche, 1979, p. 60).[351]

Crucially, *xssaϑrapaza-^{ti}* shows that the unleniting *a*-stem was the predominant strategy for denomination of *a*-stem nouns in Lycian synchrony (see section 4.2.3).

6.3.17 *xuwa-^{ti}* 'stand close to; belong to (vel sim.)'

3SG.PRES.A	*xuwati*	TL80,2 | N320,11.30
PTC.NOM.SG.C	*xuwama*	TL80,3

Semantic domain possible to establish to some degree through the Letoon trilingual; Lyc. *xuwati* corresponds to Gk. ἐγγύτατος ἦ 'is related to' (Laroche, 1979, p. 58).[352] Note that the verb is attested in participial form[353] as part of the epithet *hri-xuwama*, probably meaning something like 'overseer' (DLL, p. 86).[354]

Since Laroche (1979, p. 66), Lyc. *xuwa-^{ti}* is often connected to Hitt. *huwāi-^{hi}/hui-* and Luw. *hui*(*ya*)- 'to run',[355] with the Lycian verb meaning 'to follow'. However, as correctly stated by Neumann (GdL, p. 143), a development 'to run' > 'to follow' is not trivial.[356] Moreover, the formal match is far from perfect. Any etymological link would have to be purely radical, since the Lycian stem formation cannot be connected to the other Anatolian forms; Hitt. *huwāi-^{hi}/hui-* (*dai/tiyanzi*-type, cf. EDHIL, p. 367) ≈ Luw. *hui*(*ya*)-

[350] With contrastive semantics in PIE per Oettinger (2017).

[351] Pace Starke (1990, p. 102[261]). See footnote 142.

[352] See Starke 1990, p. 350[1236] for translation.

[353] It is noteworthy that the NOM.SG.C of the Lycian participle seems to inflect as an *a*-stem. This is surely a secondary feature in relation to the *i*-mutating participles of Luwian, to be subsumed under the general productivity of the *a*-stem in Lycian. Otherwise, it is possible that we are dealing with a derived *a*-stem from an originally *i*-mutating participial form form.

[354] Otherwise per Neumann (1983, p. 145), who reads as *upama*, and thus postulates an additional verb *upa-*.

[355] PIE root PIE **h₂ueh₁-* (LIV, p. 287), cf. Skt. *vā́ti*, Gk. ἄημι 'to blow (of the wind)'.

[356] Note also that 'to follow' is not a directly supported meaning, unlike 'to be close to'.

predicts Lyc. **qi-^{e}* or **qije-^{ti}*, not *xuwa-^{ti}*, cf. crucially Hitt. *pāi-^{hi}/pi-* ≈ Luw. *pi(ya)-* ≈ Lyc. *pije-^{ti}* 'to give' (cf. section 4.3.2).[357]

The link to CLuw. *huwayalli*, an epithet of the Sun-God, proposed by Melchert (DLL, p. 86) is possible. The Hittite duplicate corresponds with *kutrui* 'witness' (CLL, p. 81), which enables a semantic connection assuming 'to witness' = 'to stand near'.

6.3.18 *zala-^{ti}* 'act as *zala* (?)'

3SG.IPV.A	*zalatu*	TL131,4

While this verb has a debated meaning (cf. GdL, p. 429), the translation given here reflects its tentative etymology. As per Melchert (DLL, p. 87), denominative to an unattested noun **zala-*. This hypothetical noun is in turn likely an agent noun, formed with the Luwic agentive suffix **-la* (cf. Sasseville 2014) to Lyc. *za-* 'allotment' (in turn formed to PIE **$d^{h}h_{1}$-sḱé/ó-* 'to put, place (iterative)'). For a parallel, cf. *kumaza-^{ti}* formed to *kumaza-* 'priest', i.e. 'to act as priest' = 'to perform a sacrifice' (section 6.3.5).

6.4 Geminating *a*-stem verbs

6.4.1 *epa-^{tti}* 'receive, appropriate (vel sim.)'

3SG.PRET.A	*epatte*	TL40d,2

Semantic field established since Laroche (1974, p. 139). Optimal analysis by Hajnal (1995, pp. 184f): a univerbation of an *a*-stem noun and a syncopated 3SG.PRET.A form *tade* (to *(t)ta-^{di}*), see section 4.2.4. According to Hajnal the noun serving as first member is an *eh_{2}*-abstract to the root **$h_{1}ep$-* 'to take', i.e. **$h_{1}op$-$éh_{2}$-* 'conquest'. However, an abstract noun to PIE **$h_{3}ep$-*, i.e. **$h_{3}op$-$éh_{2}$-* 'possession' (cf. Lat. *ops* 'wealth'), is to my mind semantically preferable,[358] although no final decision can be met on formal grounds.

It should be noted that *epatte* may also be a DAT/LOC.SG nominal form (cf. GdL, p. 58). It is indeed suspect that no sentence initial conjunction separating *epatte* from the preceding finite verb *pijẽtẽ* is attested, although this could possibly be attributed to some space between the two verbs being broken and illegible.[359]

[357] Serangeli (2018b) suggests a denominative formation to a *CoC-$éh_{2}$*-type noun, which is formally plausible (cf. e.g. Lyc. *sm̃ma-^{ti}*, section 6.3.11). However, she also maintains the radical relationship to Luw. *hui(ya)-* 'to run', i.e. an unattested base noun (virtual) **$h_{2}ouh_{1}$-$éh_{2}$-*. Note that this reconstruction only works under the assumption that */h_{2}/ is retained in Anatolian word initially before */o/—a controversial topic, cf. e.g. Kimball 1999, pp. 142f vs. Kloekhorst 2006b, pp. 82f.

[358] I.e. Lyc. *epatte* '(s)he put in possession' = 'received'.

[359] The context is as follows: *ebeija : [xr]uwata : me=e=ije pijetẽ : wat[aprd]ata : xssadrapa : pa[rza: ...]a : pddẽ : telẽzi : epatte : trm̃mili* (TL40,1-2). Although *wataprdata xssadrapa parza* 'Wataprdata the Persian satrap' may be taken as nominative and a subject to *epatte*, a reading as dative is also conceivably possible.

6.4.2 *tija-*^{tti} 'set price (?)'

3SG.PRET.A	*tijatte*	TL48,7

Contained in the verb complex *epenẽtijatte*, commonly cited as such.[360] The complex as a whole is since Melchert (1989, pp. 42f) taken as meaning 'to represent in a sale (vel sim.)'. Such an interpretation is compatible with the context; the text is added later to an already built grave, commemorating an exchange in ownership (Laroche, 1974, p. 132).

Melchert (ibid.) connects Lyc. *epenẽtija-* to Hitt. *happinant-* 'rich (pers-on)' (< virtual PIE **h*$_3$*ep-en-ont-*), where the Lycian form is a denominative from a substantivised adjective **epenẽtija-* (< **epenẽtije-*). Similiarly per Hajnal (1995, p. 185f), with the (likely correct) caveat that the geminated ending indicates univerbation with *tade* '(s)he put, placed' rather than simple denomination (cf. section 4.2.4). However, the correspondence Hitt. *#ha-* ≈ Lyc. *e-* is insoluble. Pace Kimball (1987a, p. 187), PIE **#h*$_3$*e-* cannot give Lyc. *e-* on account of Lyc. *xawa* 'sheep' (< PIE **h*$_3$*éu-i-*) and *Xerẽi* 'Eagles (dynasty name)' (< virtual PIE **h*$_3$*ér-on-omsi*).[361]

A possible alternative analysis is to be presented here. Following the segmentation of Laroche (1974, p. 133), i.e. *epen=ẽ=tijatte*, another picture emerges. The verb form would thus be *tijatte*, formed to the already attested noun *tija-* meaning 'penalty, amends' and thus also conceivably 'price' (DLL, p. 67). Formation wise, we are per Hajnal dealing with a univerbation containing *tade*, thus: '(s)he put a price'. The complex *epenẽ* would be split in *epen*, the preverb *epñ* rendered as *epen* before the enclitic 3SG.ACC.C pronoun *=ẽ* (referring to the grave as topicalised in the beginning of the inscription). As such *epenẽtijatte* would as a whole mean something like 'he put the price on it' (i.e. 'he set

In such a case, *epatte* should perhaps be taken as a dative nominal form, agreeing with *telẽzi* 'army'. Note however that we miss a finite verb with this reading.

[360] Cf. e.g. GdL, p. 58.

[361] The alternatively suggested reconstruction **h*$_2$*ou-i-* for 'sheep' is problematic e.g. on account of Skt. *ávi*, which lacks the *-ā-* predicted by Brugmann's law in cases of primary PIE */o/ in an open syllable. Note however TochB. *ā*$_{(u)}$*w* 'ewe', which is potentially problematic for a reconstruction with */h$_3$/. Lyc. *Xerẽi* is to my mind a better example, as etymologised by Starke (1987, p. 265[80]), cf. Gk. ὄρνις 'bird', OIcl. *ǫrn* 'eagle', Hitt. *hāran* 'eagle', CLuw. *harraninza* '(some type of) birds' (cf. Starke 1990, p. 76, pace CLL, p. 57). Despite the onomastic nature of the example, there is significant extralinguistic evidence on the coins minted by the dynasty, where the goddess Pallas Athena is seen depicted with an *eagle* instead of her otherwise characterising owl. The example can only with great difficulty be explained away by front-umlaut; Lyc. *xerẽi* occurs on TL44b,47 (passim), a text in which the non-front-umlauted variant of *prñnewa-*^{ti}, i.e. *prñnawate* (TL44a,22), also occurs (cf. section 6.3.10). For the formal development of Lyc. *Xerẽi*, cf. Lyc. *mahãi* ≈ CLuw. *massaninzi*. For a treatment of the likewise relevant and in the discussion often adduced *epirije-*^{ti} '?', see section 7.2.1.

its price (vel sim.)').[362] As evident in example (16), this reading fits well contextually. Moreover, it does not require invoking unattested base forms (i.e. **epenẽtije-* etc.) and removes the need for the problematic development PIE *$\#h_3e$- > Lyc. *#e-*. Note the tentative nature of the exact semantics of *tijatte*.

(16) **TL48,4-8**
⟨ebẽñnẽ : xupã : mẽti : ijetẽ : q[a]rñnaxa : pssureh : tideimi : setideimipadrñmahexudiwazade : epenẽtijattepadrñma⟩

ebẽñn-ẽ *xup-ã* *me=ẽ=ti* *ije-tẽ*
of.this-ACC.SG.C grave-ACC.SG.C PTCL=3SG.ACC.C=PTCL buy-3SG.PRET.A
qarñnax-a *pssur-eh* *tideimi* *se* *tideim-i* *padrñmahe*
PN-NOM.SG.C PN-GEN.SG son-NOM.SG.C CONJ son.NOM.SG.C PN.GEN.SG
xudiwaz-a=de *epen=ẽ* *tija-tte* *padrñm-a*
PN-NOM.SG.C=PTCL PREV=3SG.ACC.C set.price-3SG.PRET.A PN-DAT/LOC.SG

'The grave of this (burial site), Qarñnaxa son of Pssure bought it, and Padrñma's son Xudiwaza set its price for Padrñma.'

6.5 Nasalised *ã*-stem verbs

6.5.1 *qã-^{ti}* 'punish (vel sim.)'

3SG/PL.PRES.A	*qãti*	TL89,3
3PL.PRES.A	*qãñti*	frequent

Occurs in apodosis of epitaphs as something negative to be performed by divine authority upon an offender. The form *qãti* may be 3SG, since it is formally deviant and since its subject (*itlehi trm̃mili*) is not distinguished for number (cf. 3SG *pude* vs. 3PL *puñte*, section 8.1.1).

Current consensus links the verb to the well know PIE root *$g^{wh}en$- 'to smite, kill' (LIV, p. 218). Convincingly per Kloekhorst (2013a), the initial *q-* is from the plural forms,[363] whereas the stem vocalism comes from the 2/3SG forms.[364] As such, Lyc. *qã-* is cognate to Hitt. *kuen-^{mi}/kun-* 'to kill, slay'.

[362] An extended idiomatic meaning 'to act as salesman' or similar cannot be excluded.

[363] PIE */g^{wh}/ > Lyc. /q/ / _n, otherwise PA * /g^{w}/ > Lyc. /w/, e.g. *wawa-* 'cattle' from PIE *$g^{w}ou$-.

[364] The expected 3SG.PRES.A form from PIE *g^{wh}*én-ti* (cf. Skt. *hánti* 'kills') is ***wãti*. The */e/ is lowered to */a/ before **-nT-* in PA, for which cf. footnote 113. **wãti* is analogically remoddeled to *qãti*, on the basis of which the paradigm is reformed.

6.6 Other *a*-stem verbs

6.6.1 *alahxxa-* 'have made transferred'

INF	*ala*(*de*)*hxxãne*	TL57,5 | TL112,4

Provided meaning and analysis follows Melchert (2015). The *-de-* in the attested forms is not part of the verbal stem, but in fact a particle separating the prefix *ala-* from the verb *hxxa-*. The verb is derived from and *alaha-*^{di} 'to transfer' (section 6.2.1) and by extension Lyc. (*h*)*ha-*^{di} 'to release (vel sim.)' (section 6.2.3). The existence of this form is what informs Melchert's radical reconstruction *$*seh_2$-* instead of the classical *$*seh_1$-*. As such, *alahxxa-* is formed from a verbal noun *alahxxa,* in turn formed to the verb *alaha-*^{di}. Thus: *alahxxa-* 'to have made transferred' < *$*alahxxa$-* 'transferral' < *alaha-*^{di} 'to transfer'. For clarity, in anachronistic notation *ala-* + *$*soh_2$-*$é$*h_2$-*.

6.6.2 *hba-* '?'

3P.PRES.A	*hbãti*	TL44a,49

Completely obscure meaning and not even surely a verb. Attestation at the end of a broken of line obfuscates situation further. Etymologising impossible and no clear formal cognates are to my mind available.

6.6.3 *nada-* (false verb)

Based on an unlikely reading of TL128,2. See rather *le-*, section 7.4.3.

6.6.4 *pabla-* '?'

3PL.PRES.A	*pablãti*	TL89,4

No consensus on meaning. Satisfying etymology also so far missing in the literature. Could potentially be a variant of *pabra-*^{ti} 'to urge (?)' (section 6.3.8) by *r/l* vacillation (cf. *atla-/atra-* 'self').

6.6.5 *qñta-* 'till'

3PL.PRES.A	*qñtati*	N320,14-15

Meaning with Garrett (1991, p. 21), further informed by the Greek corresponding text having κατηργάσατο, 3SG.AOR.IND.M of κατεργάζομαι 'to labour' and the object being Lyc.

zã 'allotment'.[365] Despite formally resembling a 3SG.PRES.A form, the implied syntactic subject is NOM.PL.C *epẽwẽtlm̃mẽi* 'suburbanites (vel sim.)', indicating a plural reading. This defective plural formation is not unheard of on N320; cf. the plural form *hhati* to (*h*)*ha-*^{di} (section 6.2.3) on the same inscription.

There are seemingly no obvious cognates available, rendering a proper etymology impossible. In either case, cannot be cognate to Hitt. *handae-*^{mi} 'to arrange, etc.' as suggested by Neumann (GdL, p. 305); Lyc. *q-* must correspond to Hitt. *huw-*, reflecting PA *h^w-.

6.6.6 *zxxa-* 'fight'

3PL.PRET.A	*zxxãte*	TL44c,3
INF	*zxxãna*	TL44a,54

Meaning since Pedersen (1945, p. 32).[366] Related to Lyc. *zxxaza-* 'warrior'. Anatolian radical cognates found in Hitt. *zāh-*^{hi}*/zahh-* 'to strike' and HLuw. *zahanu*(*wa*)- 'to attack'.

Hitt. *zāh-*^{hi}*/zahh-* is easily analysable as a primary verb formation, going back to a root PIE **tieh*$_2$-, i.e. a stem **ti*(*ó*)*h*$_2$- (Janda 2005; EDHIL, pp. 1019f).[367] Conversely, the Lycian verb cannot be primary, since **ti*(*ó*)*h*$_2$- should have given something like ***zex-*^{e}. Rather, Lyc. *zxxa-* is likely denominative to a noun **zxxa-*, which also forms the base of the agent noun Lyc. *zxxaza* 'warrior' (cf. *maraza* 'judge' from *mere-* 'law'). As such, the noun *zxxa-* can be reconstructed as **tioh*$_2$*-éh*$_2$-. The same noun presumably underlies HLuw. *zahanu*(*wa*)-, formed with the highly productive HLuw. *-nu*(*wa*)-suffix (cf. section 4.3.3). Note that the scenario proposed here implies that Lyc. *zxxa-* likely belonged to the unleniting *a*-stem class, although this is not possible to determine on the basis of the available material (cf. section 4.2.3).

[365] But see the discussion in GdL, p. 305.

[366] Cf. GdL, p. 434.

[367] Cf. Gk. σῆμα 'sign, mark' < **tiéh*$_2$*-mn-* 'what is carved', Gk. σῆμα 'corpse' < **tiéh*$_2$*-mn-* 'the killed one', Gk. σῖτος 'food' < **tih*$_2$*-tó-* 'threshed'.

7 The *e*-stem verbs

7.1 Leniting *e*-stem verbs

7.1.1 *ddeze-*^{di} 'bury, set aside (?)'

3SG.IPV.A	*ddezedu*	TL107b,2

Since Pedersen (1904, pp. 194f) 'to bury', but cf. also DLL, p. 10 as 'set aside'. Probably related to the Milyan noun *ddezi* (DAT/LOC.SG, TL44c,33) of unknown meaning.

Per Hajnal (1995, p. 130) a denominative of agent noun ***ddeza*, thus from virtual **-eh₂-ié/ó-*. However, in light of Mil. *dezi*, this unlikely, and Lyc. *-e-* is hardly the reflex of **-eh₂-ié/ó-* (cf. section 4.2.1). Possibly rather denominative of most likely *i*-mutating Mil. *deze/i-*. Thus, the preform is a *o-ié/ó*-type denominative of the (virtual) shape **de-dVtio-ié/ó-* (vel sim.). Cf. perhaps also HLuw. *tazatu* ⟨('CRUS')ta-za-tu⟩ 'may (s)he stand, remain' (KARATEPE 1 §LXXIV).

7.1.2 *nele-*^{di} 'set down, establish (?)'

3SG.PRET.A	*nelede*	TL44a,(19.34.42.43)

It is not certain that all attestations are verbs; some may be DAT/LOC.PL forms of a noun *neled-*, or alternatively a noun *nele* followed by the particle *=de* (cf. GdL, p. 238). If a verb, then probably denominal to *nele* 'settlement' (TL44a,46, cf. DLL, p. 43).

7.1.3 *tube-*^{di} 'decide (vel sim.)'

3SG.PRET.A	*tubedẽ*	N320,5-6 | N324,13

Meaning with Laroche (1979, p. 63).[368] Related to *tub*(*e*)*i-* 'to strike', see section 5.1.7 for etymological discussion.

Note that Hajnal's suggestion of an original "perfect-like" ("perfektisch") formation (1995, p. 168), i.e. a *hi*-conjugating root verb PA **stób-ei*, cannot be correct on account of the lenited ending.[369] Originally *hi*-conjugating verbs are reflected either as continually *hi*-conjugating or as unleniting *e*-stems in Lycian (see section 4.3.2), never as leniting stems.[370]

[368] Also likewise with Garrett (1991, p. 22).

[369] This is conceded as a problem by Hajnal himself.

[370] Likewise, a secondary transferral to a leniting stem type would be unprecedented.

7.1.4 *ze-^{di}* 'prepare, perform (vel sim.) (?)'

3SG.PRES.A	*zedi*	TL26,19 | N324,29 | (N337,14)
3SG/PL.PRES.A	*zeti*	TL103,2
(PTC?	*zẽm̃*	TL44a,41)

Meaning controversial (cf. GdL, p. 431), and the textual contexts give much leeway for interpretation. The meaning given here is informed by the tentative etymology proposed below, and thus in no way definite.[371] Note that *zeti* on TL103,2 can either be a secondarily unlenited 3SG form (cf. section 3.1) or as per Melchert (DLL, p. 88) a 3PL form having undergone sporadic loss of nasalisation in the stem formant.

Previous etymological proposals are generally lacking for this verb. The suggestion by Neumann (GdL, p. 431) to equate Lyc. *ze-^{di}* with Hitt. *zikke/a-^{mi}* (< **d^{h}h$_{1}$-sḱé/ó-*) is not tenable: there is no source for the lenited endings with a suffix taking a final segment in **-é-*, and there is no syllable for which to postulate *ad hoc* PA accent retraction.[372]

A (somewhat tentative) novel proposal follows below. Firstly, the Lycian verb is formally reminiscent of the Hittite verb *ze-$^{a(ri)}$/z-* 'to cook'. Although the verbs initially seem semantically irreconcilable, Kloekhorst (EDHIL, pp. 1033f) asserts that the original meaning was 'to be brought to its end (vel sim.)', which allows enough leeway to attempt formal comparison. Hitt. *ze-* can only reflect PIE **tieh$_{1}$-*, while the Lycian verb cannot directly reflect a root formation (**tiéh$_{1}$-ti* > Lyc. ***zadi*, cf. PIE **d^{h}éh$_{1}$-ti* > Lyc. *tadi*, section 6.2.4[373]). However, if we reconstruct a causative *CoC-éie/o*-type paradigm, radical cognacy is possible. As such: 3PL.PRES.A (virtual) PIE **tioh$_{1}$-éio-nti* > **zəʔəianti* > **zənti* » 3SG.PRES.A PL **zədi* (replacing regular Pre-PL **zəidi*, see section 4.1.1 for scenario). Cf. e.g. the etymologies suggested for *hm̃me-* 'to endow' (section 7.4.1) and *(p)puwe-^{ti}* 'to write, inscribe' (section 7.3.4). As such, Lyc. *ze-^{di}* would reflect a meaning of the sort 'to make something be brought to its end, finished', thus 'to prepare, perform, etc.'. Note, however, that this is a root etymology and is as such to be considered with due care.

[371] Neumann (GdL, p. 431) gives the basic meaning 'regelmäßig setzen, stellen, liefern', with which the meaning given here is arguably compatible.

[372] For *s*-verbs (sections 4.5.2 and 9.2), accent retraction occured *after* PA, i.e. after Luwic consonant gradation, hence their unleniting endings.

[373] Although a form **zadi* can give *zedi* through front-umlaut, this is an ongoing process in Lycian, and thus unlikely to cause change in the stem itself, including the participial form. Note also that TL44 has the un-umlauted variant of *prñnewa-^{ti}*, i.e. *prñnawate* (TL44a,22).

7.2 Unleniting *e*-stem verbs

7.2.1 *epirije-^{ti}* '?'

3SG.PRES.A	*epirijeti*	TL111,6

The meaning 'to sell' was provided by Laroche (1958, pp. 171f), informed by presumed cognacy to Hitt. *hap(pa)riye/a-^{mi}* 'to trade, sell'. This equation prompted Kimball (1987a, pp. 187f) to postulate a general loss of initial */h_3/ in Lycian, since the Hittite verb is analysed as denominative to *happar-* < **h$_3$ép-r-* (cf. Skt. *ápas*, Lat. *opus* 'work'). However, the meaning is inferred purely on etymological grounds. Note, however, that */h_3/ is likely retained word initially before */e/, cf. Lyc. *xawa-* 'sheep' (< PIE **h$_3$eu-i-*) and *Xerẽi* 'Eagles (dynasty name)' (< (virtual) PIE **h$_3$ér-on-omsi*).[374] Furthermore, the Hittite verb surely reflects a *ié/ó*-stem (Oettinger, 1979b, pp. 351-353), which with Luwic raising accounted for cannot give a Lycian *e*-stem (rather unleniting *i*-stem, i.e. ***xepri-^{ti}*, see section 4.1.3). Finally, the origin of the second *-i-* is unaccounted for.[375] Thus, the meaning remains tentative: per Neumann "mit Recht von mehreren Forschern bezweifelt" but "muß juristisch-technischer Art sein" (GdL, pp. 61f).

Alternative proposals include univerbations with *eri(jei)-^{e}* 'to raise' (section 5.5.2) or *i(je)-^{e}* 'to buy'. E.g. Rasmussen (1992, pp. 522f) suggests that the element *epi-* is the preverb of the same form.[376] Kortlandt (2010, p. 169) holds the door open for a link to Hitt. *hap(pa)riye/a-^{mi}*, but as such with secondary restoration of the laryngeal in the Hittite verb, i.e. a prestem **h$_3$op-r-ié/ó-*,[377] but the problem of an original *ié/ó*-stem remains.[378] Generally, *non liquet*.

[374] See footnote 361.

[375] The alternative Hittite stem *happirae-^{mi}* is a later variant than *happarae-^{mi}*, see EDHIL, p. 295.

[376] For example, a conceivable analysis would be *epi-* PREV + *-eri-* 'away (vel sim.)' + *ijeti* 'buy'. The meaning would this be something like 'to sell off', which fits the context of something to be punished for. For the semantics of *eri-*, cf. perhaps *erida-^{di}* (section 6.2.2). The verb *ijeti* is otherwise possibly attested as *hi*-conjugating (*i(je)-^{e}*, cf. section 5.6.1), which is unproblematic considering that original *hi*-conjugating verbs are being transformed into unleniting *e*-stems throughout Lycian times, see section 4.3.2.

[377] Note that Rieken (1999, pp. 317) indeed reconstructs the underlying noun with an *o*-grade in the strong cases.

[378] It is technically possible that the prehistoric plural suffix **-ió-* analogically replaced the regular singular *-ié-*, giving stem desinential *-ije-*. However, this would be to my knowledge the only instance of this occurring in Luwic.

7.2.2 *m̃m(e)ije-^{ti}* 'establish (vel sim.)'

3SG.PRES.A	*m̃meijeti*	N318,6
3SG.PRES.A	*m̃mijeti*	N326,1

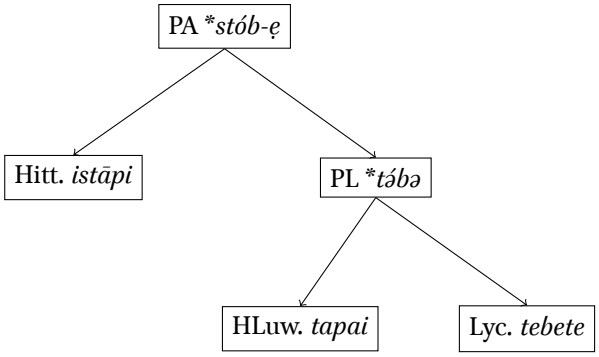
See section 5.1.4 for discussion. Likely reflects PIE **m(ó)i-* 'to establish'. Due to the lack of attested plural forms, Lyc. *m̃m(e)ije-^{ti}* could conceivably be a *ije/i*-ablauting verb (cf. section 4.1.4).

7.2.3 *tebe-^{ti}* 'conquer, defeat (vel sim.)'

3SG.PRET.A	*tebete*	TL44a,44.48 | TL104b,3
3PL.PRET.A	*tebẽtẽ*	TL29,10
INF	*tebãna*	TL44a,55
INF	*tabãna*	TL44a,52

In section 4.3.2, Lyc. *tebe-* was used to demonstrate that unleniting *e*-stems generally reflect *hi*-conjugating stems in Anatolian comparanda. To this purpose, *tebe-* is highly useful, since it it possible to securely reconstruct every intermediate stage of the 3SG stem. See figure 7.

Figure 7: The development of PA **stóbẹ* (3SG.PRES.A)



Lyc. *tebe-* and HLuw. *tapa-* are semantically compatible, both being used in military contexts.[379] PL **təbə* is reconstructable bottom up as the 3SG.PRES.A form; different added characterisations in Luwian (present marker *-i*) and Lycian (person marker *-t-*, note however preterite), cf. section 3.3.3. Hitt. *istāp-^{hi}/istapp-* means 'to prop up, dam, etc.', but is crucially also used in martial contexts, i.e. 'to encircle, besiege, etc.' (cf. HEG[1],

[379] The Luwian word likely means 'destroy' (vel sim.), being an action warned against taking against temples. See KARKAMIŠ A2 §13, translation in CHLI[1], p. 109. Meaning in either case basically compatible.

pp. 432f). See section 6.3.12 for the regular correspondance of the initial radical (Hitt. *ist-* ≈ PL **t-*). Note also that Lycian has demonstrably built a new stem on the basis of the inherited 3SG.PRES.A form, i.e. (in possibly anachronistic terms) 3PL.PRET.A **tbbãte* (vel sim.) » *tebẽte* on the basis of 3SG.PRES.A **tebe*.

The PIE radical reconstruction is not entirely clear. Two main alternatives are available: either **step-*[380] with Kloekhorst (EDHIL, pp. 415f) or **stemb^h-*[381] with Hajnal (1995, p. 141).[382]

7.2.4 *trbbe-^{ti}* 'oppose (?)'

3SG.PRET.A	*trbbetẽ*	TL44a,54

Meaning per Hajnal (1995, p. 145) and Melchert (DLL, p. 69). See section 5.1.5 for discussion.

7.2.5 *zbe-^{ti}* '?'

3SG.PRET.A	*zbetẽ*	TL44a,33

Analysed as a verb by Melchert (DLL, p. 88), but reading as a noun is also possible (cf. GdL, p. 431). Directly preceded by ⟨mẽ⟩ (*me=ẽ*), so a verbal reading is not blocked by the rules established in section 3.2. Uncertain form and lack of semantics render etymologising fruitless.

7.2.6 *pije-^{ti}* 'give'

1SG.PRET.A	*pijaxa*	TL149,17
1SG.PRET.A	*pijaxã*	TL149,13
3SG.PRES.A	*pijeti*	N324,17
3SG.PRET.A	*pijete*	(TL45A,1 | TL143,4)
3SG.PRET.A	*pijetẽ*	frequent
3PL.PRET.A	*pijẽte*	TL29,8
3PL.PRET.A	*pijẽtẽ*	TL57,4 | N320,12

Meaning uncontroversial.[383] The attestations of the 3SG.PRET.A form *pijete* are both only partially legible.

[380] Cf. e.g. PG **stup-* 'to clog'.

[381] Cf. LIV, p. 595, e.g. Ved. *stabhnáti* '(s)he supports, makes firm'.

[382] Per Melchert (2012, pp. 180f), the lenited consonant in Hittite *istāpi* is secondary, introduced on the model of *hi*-conjugating root verbs with a radical coda in */h$_2$/, e.g. Hitt. *nāhi* < PIE **nóh$_2$-ei*.

[383] See DLL, p. 49; GdL, p. 271.

Good comparanda is readily available in Luw. *piya-* and Hitt. *pāi-^{hi}/piya-* 'to give'. To be reconstructed as a *hi*-conjugating athematic *i*-stem **h₁p-(ó)i-* following Kloekhorst (2006a).[384] Note again the Luwic stem reformation based on the original 3SG.PRES.A form **pije* (< PL **piə*[385] « Pre-PL **pə* < PA **(ʔ)póiḗ* < PIE **h₁p-ói-ei*, cf. sections 5.5 and 4.3.2); e.g. the expected 3PL.PRET.A is ***pite* (< PL **pīte* « **pīs* < PIE **h₁p-ói-s*).

The apparent stem formant *-a-* in the 1SG forms is secondary and arose from to back-umlaut triggered by the ending *-xa* (cf. section 3.3.6).

7.3 *uwe*-stem verbs

7.3.1 *eruwe-^{ti}* 'exalt / prostrate oneself (vel sim.)'

3SG/PL.PRES.A	*eruweti*	TL107,2

The meaning of Lyc. *eruwe-^{ti}* is largely dependent on which etymology one favours. In either case, the context implies the veneration of the buried by their wives.

One possibility is to connect the verb to the PIE root **h₃er-* 'to rise', either as a athematic *u*-stem (i.e. **h₃r-(ó)u-*[386], cf. section 4.3.3) or with the root extension **-u-* (i.e. **h₃(ó)ru-*, cf. section 7.3.3). Alternatively, Hajnal (1995, p. 161) suggests a deadjetival formation to the adjective corresponding to Hitt. *aru-* 'high' (a radical connection to PIE **h₃er-* is maintained).[387] In these cases, the meaning 'exalt' would be derived from the concrete meaning 'raise'.

Within the theoretical framework of the current thesis, an alternative etymology is possible. Hitt. *aruwae-^{mi}* 'to bow, prostrate oneself' conjugates according to the *hatrae*-type, reflecting a denominative in **-o-ié/ó-* (EDHIL, p. 213). According to the scenario outlined in sections 4.1.1 and 4.3.1, Hittite *hatrae*-type verbs can correspond to Lycian leniting *e*-stem verbs (cf. e.g. Lyc. *hm̃me-*, section 7.4.1). The only factor obstructing a link between the two verbs is that *eruwe-^{ti}* is seemingly an unleniting stem. However, this need not completely invalidate the present hypothesis: either *eruweti* is secondarily unleniting (as is most likely the case for the formally reminiscent *(p)puwe-^{ti}* 'to write', section 7.3.4), or it is in fact a 3PL.PRES.A form. The latter analysis is possible in light of e.g. the 3PL.PRES.A form *hhati* to *ha-^{di}* 'release' (cf. sections 3.3.5 and 6.2.3), and perhaps

[384] Pace Hajnal (1995, p. 120) for Lycian.

[385] The PL form **piə* must itself be analogical, since the input **h₁p-ói-ei* would give PL ***pə* (< Pre-PL **pəiə*). The stem formant *-i-* would however be available in all other forms of the paradigm (e.g. 3SG.PRET.A **pite*). See also the case of *erije* in section 4.1.5.

[386] For the retention of */h₃/ before resonants, cf. *alãma-* < **h₃neh₃-mn-*.

[387] Hajnal's scenario would presuppose deadjectival verb stem formation by means of an unleniting *e*-stem, which to my knowledge stands without precedent.

made more likely by the general aberrant spelling displayed in TL107.[388] Incidentally, an analysis as 3PL.PRES.A is syntactically compatible the NOM.PL.C noun *ladãi* 'wives' being the subject.[389] The semantic compatibility is made clear with the reading in example (17). Thus, an etymology Lyc. *eruwe-*^{di} < (virtual) PIE *$*h_2$oru-o-ié/ó-* (cf. EDHIL, p. 213) should be considered a possibility.

(17) **TL107,1-2**
⟨sladãi : ebttehi : IV [...]te : hrijeruwetiti : epñebtte⟩

se *lad-ãi* *ebtteh-i* *IV* [...]*te*
CONJ wife-NOM.PL.C POSSPRON.3PL-NOM.PL.C 4 ?
hrij=eruwe-ti=ti *epñ*
PREV=prostrate.oneself-3PL.PRES.A=RELPRON.NOM.PL PREV
eb-tte
DEMPRON-DAT/LOC.PL

'And their four wives [...], who prostrate themselves beside them'

7.3.2 *qanuwe-*^{ti} 'destroy; cause to be destroyed'

3SG.PRES.A	*qanuweti*	TL110,3

Attestation in apodosis context, rendering interpretation of semantic domain more or less secured. The provided meaning (see DLL, p. 54) is informed by deriving the stem formation from the PIE *n(é)u*-suffix, which at least in Hittite is primarily causative.[390] Note that, per Hajnal (1995, p. 158), a purely causative interpretation 'to cause to destroy'[391] is not possible. For this reason, and because Hajnal formally expects an outcome **qãnudi* (regular from PIE *$*g^{wh}$n-néu-ti*), he prefers an origin in a *ié/ó*-denominative from an unattested noun *$*k^w$an(u)u̯ā-*[392] (sic) 'punishment' (ibid., p. 162). This solution is hardly preferable, however, since it evokes an unattested form, and since an unleniting *e*-stem cannot be derived from a *ié/ó*-denominative to an *a*-stem (cf. section 4.3.2). Here, an origin as a *n(é)u*-formation is rather defended.

Firstly, semantics does not form a good argument against an origin as a primary *n(é)u*-verb (i.e. *$*g^{wh}$n-n(é)u-*). Although the meaning 'to cause to destroy' is indeed unacceptable, a passive meaning 'to cause to be destroyed' is not in any way impossible. Cf. the

[388] Cf. e.g. ⟨ebtte⟩ for *ebette* 'for/in these/this', ⟨sladãi⟩ for *se ladãi* 'and the wives'
[389] TL107 is somewhat broken. Otherwise, this piece of evidence would be much more probative.
[390] See Hoffner & Melchert 2008, pp. 210f. Cf. also the Sankrit class V verbs, e.g. *sunóti* '(s)he presses'.
[391] As given by van den Hout (1995a, p. 157[14]).
[392] This would as such be a thematic *uā*-noun, formed to an older *uer/n*-stem.

Hittite *nu*-verb *pahsnu-*^{mi} 'to protect' (cause to be protected), formed to the verb *pahs-*^{mi} 'to protect', crucially not meaning 'to cause to protect'. Furthermore, current wisdom holds that nasal verbs were not only causative, but could also be used to express e.g. intensive semantics (Shatskov, 2017, p. 256).

Secondly, Hajnal is right to state that a PIE input form *$*g^{wh}n$-$n(é)u$- would by regular sound laws give Lyc. *$*qãnudi$. However, Lyc. *qanuwe-*^{ti} must be understood in its Luwic context; the stem formation is cognate to the HLuw. *nu*(*wa*)-stem. In Hieroglyphic Luwian, old *n*(*é*)*u*-stems have seemingly partly merged with *hi*-conjugating *u*-stems (see section 4.3.3). As such, *qanuwe-*^{ti} is the expected outcome of a hypothetical PL *hi*-conjugating stem type (see section 4.3.2), i.e. PL *$*H^wNuə$.[393] The *a*-vowel in the root is likely explainable by accent retraction (cf. 9.2.2) and subsequent anaptyxis.

7.3.3 *tuwe-*^{ti} 'place (upright), erect'

1SG.PRET.A	*tuwax*	TL29,15
3SG.PRES.A	*tuweti*	TL88,4 | TL93,3
3SG.PRET.A	*tuwete*	frequent
3SG.PRET.A	*tuwetẽ*	TL25,2 | TL44b,51 | TL72
3SG.IPV.A	*tuwetu*	TL88,4 | (TL93,2)
3PL.PRES.A	*tuwẽti*	N320,33

Meaning uncontroversial since established by Laroche (1967, p. 50). Clear cognate available in Luw. *tu*(*wa*)- 'to place'[394] and a potential cognate in Lyd. *cu*(*ve*)- (LW, p. 94). If analysed with the hypothesis outlined in section 4.3.3, stem reconstructions as either *$*(s)th_2$-$(ó)u$- or *$*d^hh_1$-$(ó)u$- are possible. This could potentially explain HLuw. ⟨tu-ta⟩ '(s)he erected' (ERKİLET 2 §1, see CHLI[1], p. 494) as an archaic form reflecting (virtual) PIE *$*(s)th_2/d^hh_1$-*óu-to*. Otherwise, generally reconstructed with a root extension *$*-u$- (see the discussion in section 4.3.3).

7.3.4 *(p)puwe-*^{ti} 'write, inscribe'

3SG.PRES.A	*puweti*	TL44c,9-10
3SG.PRES.A	*ppuweti*	N320,23
3PL.PRES.A	*ppuwẽti*	(TL93,7.12-13) | N320,34

Meaning confirmed by the corresponding Greek text on the bilingual (Laroche, 1979, p.

[393] Note however that no 3SG.PRES.A of a *-nu*(*wa*)- stem is attested in Luwic. The merger between the two types thus remains rather tentative.

[394] E.g. CLuw. ⟨du-ú-u̯a-at-ta⟩ '(s)he placed' (KBo XIV.114 11), HLuw. ⟨⟨(PONERE)tu-wa/i-ha⟩ 'I placed' (MARAŞ 8 §6).

71).[395] Within Anatolian, the verb is cognate to CLuw. *pūwā-* 'to pound, crush' and Hitt. *puwae-*^{mi} 'to pound, grind'.[396]

Lyc. *puwe-*^{ti} and its cognates are frequently reconstructed as a *ié/ó*-denominative, i.e. **ph₂u-ié/ó-*[397] (cf. e.g. EDHIL, p. 684; Giusfredi 2009; Serangeli 2018b, pp. 199). However, this reconstruction is demonstrably invalid: with Luwic raising taken into account, a preform PIE **ph₂u-ié-ti* ought to give Lyc. ***puwiti*.[398] Furthermore, the lenition in the CLuw. 3SG.PRES.A form ⟨pu-wa-a-ti⟩ (KUB.XXXVII 1 i 16) remains unaccounted for.[399]

Hajnal (1995, pp. 121f) suggests an inherited "stative-middle" reflecting **pouH-o*, but this account is likewise wholly incapable of explaining CLuw. *puwāti*. It is furthermore troubling that the only other known stative-middle, i.e. *sijẽni* to *si-* 'to lie' (section 5.3.7), has the ending *-ẽni* and has *not* been transferred to the unleniting *e*-stem class.

An alternative etymology is outlined below. Starting from the plural forms, Lyc. *puwẽti* and CLuw. *puwandu*[400] unequivocally license the reconstruction of a PL 3PL.PRES.A form **puənti*. In the 3SG.PRES.A forms, the languages disagree in terms of lention: CLuw. *puwāti* (leniting) vs. Lyc. *puweti* (unleniting). Here, credence is to be given to the CLuw. variant, since the unleniting endings are productive in Lycian (see section 3.1). It is also noteworthy that all other Lycian verbal stems ending in *-uwe-* are unleniting, and that analogical pressure may thus have been exerted from that direction (cf. the case of *eruwe-*^{ti}, section 7.3.1).[401] Thus we can reconstruct a PL 3SG.PRES.A form **puədi*.

Consequently, we arrive at a PL leniting *ə*-stem: **puə-*^{di} 'to strike; inscribe'[402], corresponding to Lycian leniting *e*-stems. As shown in section 4.3.1, this type can originate in either original *CoC-éie/o*-type causative/iteratives or *o-ié/ó*-denominative stems. At this

[395] The corresponding Greek verb is ἐγγέγραπται (line 21), the 3SG.PERF.IND.M of ἐγγράφω 'to inscribe'.

[396] Further secondary radical cognates include Hitt. *pupulli-* 'ruin', Hitt. *puppussa-*$^{tta(ri)}$ 'to be ground (imperfective)'.

[397] cf. Lat. *pavīre* 'to pound, strike'

[398] Cf. possibly Lyc. *ddewite* '(s)he dedicated' (to *ddewi-*, section 5.3.1) for another instance of Luwic raising with preceding *-w-*, pace Giusfredi (2009, p. 63).

[399] The accent retraction account by Giusfredi (2009, p. 63) encroaches *ad hoc* territory. There are only two possible examples of prehistoric accent retraction *potentially* causing lenition in the otherwise consistently unleniting *ié/ó*-class: CLuw. *annitti* 'to carry out, treat' and HLuw. *izidi* 'to do; venerate' (Rieken, 2007, p. 273), which are themselves not free from controversy. E.g. Kloekhorst (2016) suggests that HLuw. *izi*(*ya*)- originates in a *mi*-conjugating athematic *i*-stem.

[400] See CLL, p. 182 for attestations. Note, however, that Melchert now takes the plural form *puwandu* rather as belonging to a Luwic verb *pu*(*wa*)- 'to hold' (2016, pp. 206ff). In either case, the argument presented here still essentially holds.

[401] Additionally, it deserves mentioning that Melchert (DLL, p. 54) and Serangeli (2018b, p. 199) in fact read all forms of Lyc. (*p*)*puwe-*^{ti} as 3PL.

[402] It must be kept in mind that the *writing* indicated by the Lycian verb refers to the writing on stone, where some modicum of *striking* is neccessary. Thus, the semantic match leaves none to be desired.

point it is pivotal to note that Hitt. *puwae-*^{mi} inflects according to *hatrae*-type, which originates precisely in *o-ié/ó*-stems. Thus, we are licensed to reconstruct a PA verbal stem **pu-o-ié/ó* < (virtual) PIE **ph₂u-o-ié/ó-*,[403] by which the Hittite form is demonstrably cognate to the Luwic forms.[404] Thereby, under the analysis forwarded here, all attested Anatolian data is rendered explicable.

7.4 Other *e*-stem verbs

7.4.1 *hm̃me-* 'endow, provide'

3PL.PRES.A	*hm̃mẽti*	N324,4.5 | N325,12

Contexts obscure and thus likewise meaning. Laroche (1979, p. 64) has suggested to subsume Lyc. *hm̃mẽti* under the lemma *m̃m(e)i-* 'to build', but initial *h-* renders this impossible. Rather to be disconnected from the *build*-family.

As noticed already by Laroche (ibid.), a possible formal cognate of Lyc. *hm̃me-* is available in Hitt. *samnae-*^{mi} 'to create, fashion, set'.[405] Consequently, Lyc. *hm̃me-* is possibly an argument for linking the Hittite *hatrae*-type to Lycian *e*-stems.[406] Thus, PIE **sm-no-ió-nti* > Lyc. *hm̃mẽti*, Hitt. *samnanzi* (with reconstruction as denominal to nominal derivation of PIE **som* 'together', EDHIL, pp. 717f).

To properly maintain a formal connection, a semantic link should be found between the two words. While the context in N325 is too broken to be useful[407], the attestations on N324 are more useful. The text is a dedicatory inscription to the ruler Arbbina, speaking of a statue (*tuked*[*ri*], line 1). Both times, *hm̃mẽti* occurs with a 3SG.ACC.C pronoun *ẽne* as direct object and with the INSTR/ABL.SG *xahadi*, probably meaning 'hearth' or 'altar' (vel sim., cf. Hitt. *hassa-* 'hearth').[408] Thus, the passage can be translated as something to the effect of 'they *hm̃me* it (the statue) with an altar'. Provided the PIE etymology of EDHIL given above is correct, the base of the verb is a *no*-derivation of **som* 'together'. As such, **sm-no-* would mean 'togetherness, unity (vel sim.)', with the denominal **sm-no-o-ié/ó-* taking the meaning 'to make together (vel sim.)'. From this meaning we can explain Hittite 'to fashion'.[409] To my mind, the Lycian data is also understand-

[403] Note that the radical reconstruction is based on a presumed relationship to Lat. *pavīre*, as in previous accounts. However, some other root may be underlying; the series of the initial bilabial and the laryngeal are not directly provable only on the basis of the Anatolian material.

[404] Contrary to some suggestions that the Hittite verb is a borrowing from Luwian, cf. CLL, p. 182.

[405] See also the alternative proposal in DLL, p. 24 to segment as *hm̃m=ẽti*, where *hm̃m* is a preverb.

[406] Specifically leniting *e*-stems as well as *i/ei*-ablauting stems, see section 4.3.1. Thus *hm̃me-* is perhaps a leniting verb.

[407] N325,12: ⟨[...]ẽnehm̃mẽti : x[...]⟩

[408] N324,4: ⟨[...] mẽnehm̃mẽti : xahad[i...]⟩, N324,10: ⟨[...] mẽnehm̃mẽti : xahadi [...]⟩.

[409] I.e. 'to make together' = 'to assemble together' = 'to fashion'.

able with these semantics; from *'to make together', a meaning 'to endow with, provide' is also derivable.[410] Accordingly, the Lycian passage becomes entirely comprehensible, i.e. 'they provide it (the statue) with an altar', and the formal matching is rendered semantically plausible.

The HLuw. form ⟨sa-ma-ni-ha⟩ (BOYBEYPINARI 2 §8b) could possibly be cognate.[411] If so, this Luwic verb would constitute a rare instance where a Pre-PL stem with suffigal ablaut in *-əi/ə-* is not levelled in favour of either suffix (yielding either a Lycian *i/ei*-ablauting or leniting *e*-stem, see sections 4.1.1 and 4.3.1). Thus, 1SG.PRET.A (virtual) PIE **sm-no-ié-h₂e* > Pre-PL **smnəiHa* > PL **smnīHa* > HLuw. ⟨sa-ma-ni-ha⟩ vs. 3PL.PRES.A (virtual) PIE **sm-no-ió-nti* > PL **smnānti* > Lyc. *hm̃mẽti*.

7.4.2 *ite-* 'entrust (?)'

INF	*itẽne*	TL29,4

Analysis and translation by Melchert (DLL, p. 29). However, remains very tentative. Note also that the only attestation is an infinitive in *-ne*, so ending allomorphy is completely ambiguous.

7.4.3 *le-* 'allow, grant'

(1SG.PRES.A	*lau*	TL128,2 | TL135,2)
3PL.PRET.A	*lẽ[t]ẽ*	TL18,2

All attestations are questionable.[412] However, if real, semantics are uncontroversial.[413] Note that Lyc. *le-* is otherwise quoted as *la-*^{2} (as opposed to *la-*^{1} 'to die, be dead', see section 6.3.6). However, this is inconsistent practice, considering e.g. *pije-*^{ti} with the 1SG.PRES.A *pijaxa* with stem final *-a-* and the 3PL.PRET.A *pijẽte* with stem final *-e-*.

Lyc. *le-* is commonly connected to Hitt. *lā-*^{hi}*/l-* 'to loosen, release', in turn from PIE **leh₁-* 'to let' (LIV, p. 399). Since Oettinger (1979b, p. 501), the Hittite word is reconstructed

[410] Cf. also the nuance 'to set in place' of the Hittite verb (HED^{10}, pp. pp. 99f).

[411] The meaning 'I created' given by Hawkins (CHLI^{1}, p. 337) is based only on formal comparison to Hitt. *samnae-*^{mi}.

[412] The attestation on TL128,2 is unfortunately slightly broken on the lower part, rendering a difference between ⟨Δ⟩ (*d*) and ⟨Λ⟩ (*l*) illegible. Thence a form *nadau* is sometimes cited, but there is to my mind no justification to postulating a new verb when the semantics of *la* are highly compatible (*me=i=te na lau tike arawã* 'I do not grant anyone freedom to it'). The attestation on TL135,2 is only inferable on basis of the verb ending and as a formulaic parallel to TL128 (same object), i.e. to be read [n]a[la]u. On TL18,2, the *-t-* of the verbal ending is restored, although the stem is luckily completely legible.

[413] Cf. GdL, p. 180; DLL, p. 34.

as a root verb *loh_1-/lh_1-. This is wholly compatible with the Lycian forms: *lau* reflects a strong stem, i.e. **le*-, having undergone ablaut on account of the ending *-u* (cf. *ddawu* to *ddewi-*^{ti} 'to dedicate', section 5.3.1). The plural form *lẽtẽ* may either be front-umlauted by the ending vowel *-ẽ* from top-down predicted **lãtẽ* (< **lh_1-énto*, or formed to a renewed verb stem based on the (unattested) 3SG.PRES.A form **le* (< (Pre-)PL **lə́ʔ-ə* < PA **lóʔ-ẹ* < PIE **$lóh_1$-ei*), see section 4.3.2. Note that this etymology presupposes that *laṭ*[*i*] on TL75,4 does not belong to this lemma.[414]

8 The *u*-stem verbs

8.1 Leniting *u*-stem verbs

8.1.1 *pu-*^{di} 'inscribe / grasp (?)'

3SG.PRET.A	*pude*	N324,3
3SG.PRET.A	*pudẽ*	TL78,5 | TL87,4
3PL.PRET.A	*puñtẽ*	TL114,2

Provided meanings are mutually exclusive; either 'inscribe', usually followed in the literature (cf. GdL, pp. 289f), or per Melchert (2016, pp. 206ff) 'hold, grasp (vel sim.)'. See section 4.4 for etymological discussion.

8.2 Other *u*-stem verbs

8.2.1 *mlu-* '?'

(3PL.PRET.A	*mluñte*	TL29,11)

Analysis by Schürr (2001, p. 135) and Melchert (DLL, p. 40). However, in the facsimile of Kalinka (TL, p. 27), the sequence clearly reads ⟨meuzte⟩. Reading thus probably based on other sources. *Non liquet*.

8.2.2 *xz(z)u-* '?'

INF	*xzuna*	TL35,14
INF	*xzzuna*	TL35,18

Only attested in the infinitive. Note puzzling variable spelling within the same text. Obscure meaning. Per Ševoroškin (1977, p. 142) to be connected to Hitt. *hassuwē-* 'to become king, reign as king', but definitely *non liquet*.

[414] As such, most likely belongs to *la-* 'to die, be dead' (section 6.3.6.)

9 The C-stem verbs

9.1 C-stem proper verbs

9.1.1 *app-* 'seize'

(3SG.PRES.A	*ap*[.]*di*	TL94,3)
3SG.PRET.A	*apptte*	TL29,9

Meaning uncontroversial.[415] Anatolian cognate found in Hitt. *ēpp-^{mi}/app-* 'to seize, take', both Hittite and Lycian reflecting a *mi*-conjugating root formation **h₁(é)p-* (LIV, p. 237). Thus within Lycian radically related to *pije-^{ti}* 'to give' (section 7.2.6) and probably *ep(e)i-^{di}* 'deliver (vel sim.)' (section 5.1.1).

Although consensus broadly exists on the input form **h₁(é)p-*, there are puzzling formal aspects. Firstly, the initial *a-* remains without satisfying explanation; the expected form would have an initial ***e-*. Secondly, the attestation on TL94,3 seems to be leniting, which is wholly unexpected for a C-stem; there is no known lenition rule by which the ending could have been lenited after */p/ (cf. section 3.1).[416]

An *ad hoc* solution is provided by Melchert (AHP, p. 313): a prehistorical anaptyctic *a*-timbre vowel is postulated to account for both facts. Thus: Lyc. *appdi*[417] < **ápdi* (syncopated) < **ápadi* (back-umlauted) < **épadi* (Eichner's second lenition rule) < **ép^{a}ti* < PIE **h₁ép-ti*. Despite that an early anaptyctic *-a-* for which there is no precedent causing umlaut *and* lenition is entirely *ad hoc*, this seems to be the only attempted solution at present.[418] *Non liquet.*

[415] Cf. GdL, p. 15.

[416] The problem is exacerbated by the broken attestation. The general confusion surrounding form is what motivates the lack of any overt specification of ending allomorphy in the given lemma, i.e. *app-* rather than e.g. *app-^{di}*.

[417] Or *ap*[*d*]*di*.

[418] The *a*-timbre could also potentially be explained by an unattested plural form, as hinted at by Serangeli (2018b, p. 127). However, the implications of this hardly render a satisfying solution: we must invoke an unattested 3PL stem **apãti*, where the initial *a-* is umlauted from the ending. The *a*-timbre ending is regular from the sequence **-ent-* (see footnote 113). This vowel is then spread to the singular. However, the vowel itself in the plural form cannot be primary, since **h₁p-énti* would give Lyc. **pãti*. Consequently, this vowel would necessarily in turn be analogically transferred from the singular stem. We must in sum assume two separate paradigmatic levellings; 3SG Lyc. *ap*[.]*di* « 3PL **apãtV* < **epãtV* « **pãtV* < PIE **h₁p-énti*. The lenited ending also remains unexplained.

9.1.2 *mar-^{tti}* 'command, authorise'

3SG.PRES.A	*martti*	TL109,4 | (TL112,4.5 | TL118,3 | N324,14)

Meaning more or less uncontroversial since Torp (1898a, p. 29).[419] Only one attestation of the verb is completely unbroken, but the rest are plausible emendations.

The verb *mar-^{tti}* likely belongs to the same juridical word family as *mara* (DAT/LOC.PL *mere*) 'laws', *marazije-* 'court', and *maraza-* 'judge'.[420] A likely Luwic cognate is found in HLuw. ⟨('LOQUI')ma-à+ra/i-ti-na⟩ 'bidding' (ACC.SG).[421] Thus we may be at liberty to postulate a PL stem **mar-* pertaining to juridical matters.

Hajnal (1995, pp. 111f) attempts to connect the family to a PIE root **merH-* 'to speak', found with "*u*-extension" in for example Indo-Iranian, cf. Skt. *brū-^{i}* 'to speak'. With the root **merH-u-*, the *a*-vowel in *martti* is explained as a result of a umlaut: *martti* < **márrudi* < **mérrudi*. A reconstruction **merH-u-* is also used by Hajnal to connect *martti* to the word family HLuw. *malwa* and Sid. *malwa* 'sign, stele' established by Eichner (1985) and Lyd. *mruvaa-* 'stele' (LW, pp. 168f).[422] However, difficulties remain: the unlenited ending in *martti* (not ***marddi*) would have to be secondary, which may not be a problem in and of itself (cf. section 3.1). A connection to the *malwa*-family presupposes *r/l* vaccillation (cf. Lyc. *atla-* and *atra-* 'self'), which increases uncertainty. Finally, there is no clear precedent of a syncopated *u*-extended verb stem in Lycian; what are generally claimed to be "*u*-extended" roots are rather reflected in Lycian *uwe*-stems (see seciton 4.3.3). As such, Hajnal's proposal is unlikely.

It seems much more attractive to explain the *a*-vocalism as a result of the lowering rule also active in e.g. *qã-* 'to punish' (see section 6.5.1 and footnote 113). As such, regularly Lyc. *martti* < PIE **mérH-ti*. The implication is that the rule should be expanded to include all resonants, i.e. the sequence **eRT*, not only **enT*.

Kimball (2017) rather connects the verb to a root **smer* 'to distribute' (cf. IonGk. 3SG.PERF.M εἵμαρται 'it is decided by fate') or *(*s*)*mer-* 'to think of, remember' (cf. Ved. *smarati* 'thinks of'), which may or may not be related on a deeper PIE level. In either case, assuming s-mobile is probably required to account for the Lycian reflex (PIE **#sm-* seems to give Lyc. *hm-*, cf. section 7.4.1). Provided that PIE **eRT* > PA **aRT* is valid, the improbable (early) generalisation of the weak stem **mr-* posited by Kimball (ibid., p. 215)[423] is unnecessary. Especially if TochB. *palwaṃ* 'complains' and Slavic words for speech such as Cz. *mluvati* 'to speak' and Russ. *molvá* are taken as cognate to e.g. Skt.

[419] See Melchert 2015, p. 156 for the meaning 'to authorise'.

[420] Meanings taken from DLL.

[421] See Morpurgo-Davies 1980, p. 98 for meaning.

[422] Lyd. *mruvaa-* was in fact connected to Av. *mrav-* 'to speak' already by Thurneysen (1922).

[423] I.e. *martti* < **mr̥ti* « **mərti* on the basis of a plural stem in **mr-*.

brū-^{i} 'to speak' (which is likely), Kimball's radical etymology is to be preferred on account of the **-l-*.

9.1.3 *puh-^{tti}* '?'

3SG.PRES.A	*puhtti*	(N324,15) | N326,2

Very obscure verb without obvious cognates.[424] Etymologising is thus difficult. An intuitively attractive path is to connect *puh-* to *pu-^{di}* 'write/hold' (sections 8.1.1), we can segment a suffix *-h-*. This suffix may perhaps subsequently be compared to the imperfective suffix Luw. *-(s)sa-* (e.g. in CLuw. *pipissai*) and Hitt. *-ssa-/-ss-* (e.g. *halzissai*), since fortis PL */S/ is reflected as /h/ in Lycian.[425] The suggestion remains highly tentative however, and the consistent *hi*-conjugating endings found with this suffix elsewhere remain unaccounted for.[426]

9.1.4 *xal-^{tti}* 'to control; defend (vel sim.)'

1SG.PRET.A	*xalxxa*	TL29,5
3SG.PRET.A	*xalte*	TL29,12

Meaning not secured, but surely within the realm of caring for lands.[427] Note the aberrant spelling in *xalte* (instead of expected geminated **xaltte*, cf. section 3.3.7). This is very likely to be a spelling error, considering that the expected geminated ending is there is the 1SG.PRET.A form *xalxxa* on the very same inscription.

Per Serangeli (2015), Lyc. *xal-^{tti}* is to be connected to the PIE root *$h_2$el-* 'to nurture, raise' (LIV, p. 262).[428] Would as such have a direct cognate in Lat. *alō* 'to nurture', both reflecting a root formation PIE **h_2(é)l-*.

Probably radically cognate to *xla(i)-* 'to enclose; take control of (?)', section 6.1.6.

[424] Cf. GdL, p. 290; DLL, p. 53.

[425] The suffix is reconstructed as **-soh$_1$-/sh$_1$-* by Kloekhorst (2008, pp. 688f), and has been compared to the Tocharian causative *-s-* (Melchert, 1987, p. 200) and the IE desiderative (Oettinger, 1992, p. 233).

[426] According to the tendencies established in section 4.3.2, we would expect a form ***puheti*, or even a *hi*-conjugating form ***puhe*. If the connection is maintained, we probably have to reckon with syncope giving *puhtti* from **puheti*. However, it remains unclear why it would occur here and not for instance in *ubete*.

[427] Per Carruba (1977, p. 307) 'to protect'. Likewise, per Melchert (DLL, p. 81) 'something done to cities/lands'. Cf. also the professional term *asaxlaza-* and the noun *xale/i-* 'precinct (vel sim.)'.

[428] Semantic connection: 'to nurture a city' > 'to care for a city'—to my mind a relatively plausible shift.

9.1.5 *xul-^{tti}* '?'

3SG.PRES.A	*xultti*	TL84,5

Meaning quite obscure. Something to be performed on the temenos of a grave, and thus presumably something positive.[429] Neumann (GdL, p. 138) suggests 'to preserve, protect'. The meaning 'to fight' suggested by Ševoroškin (*apud* GdL) is unlikely in light of aforementioned context. Ševoroškin's suggestion is informed by presumed cognacy to Hitt. *hulle-^{mi}/hull-* 'to break, defeat'. The Hittite verb likely reflects a PIE root *$*h_2uelh_1$-* (EDHIL, pp. 358f), with cognates in OIr. *follnadar* 'to rule' and Lat. *valeō* 'to be strong'. Thus, a radical connection *may* be tenable, provided that the Hittite meaning is secondary.[430] The Lycian cognate would as such reflect a root formation *$*h_2u(é)lh_1$-* with generalised root vocalism in favour of the plural. However, *non liquet*.

9.2 *s*-stem verbs

9.2.1 *as-^{tti}* 'do, make'

3SG.PRES.A	*astti*	TL29,3 | TL65,17
3SG.PRET.A	*astte*	TL29,4 | TL44b,50
INF	*asñne*	N320,41

Formed as the *s*-verb to *a(i)-^{di}* 'to do, make' (section 6.1.1).[431] Even though the etymology of the parent verb is debatable, it appears fairly certain that *as-* is not a primary *sḱé/ó-* formation; there is to my knowledge no process by which initial *#a-* can arise from a zero grade root.

9.2.2 *qas-^{tti}* 'punish (vel sim.)'

3SG.PRES.A	*qastti*	(TL84,3) | TL150,6
3SG.PRET.A	*qastte*	TL29,3 | TL44a,47
3SG.IPV.A	*qasttu*	TL56,4

The *s*-verb corresponding to *qã-* 'to punish' (section 6.5.1).[432] May be primary formation, i.e. reflecting PIE *$*g^{wh}n$-sḱé/ó-*: the deciding factor is the fate of inherited syllabic */n/. Given the accent retraction necessary for the shape of the stem formant (see section

[429] The clause on TL84,5 reads as *me=ede=i ñte xultti hrm̃mã pñtbahi ñte=ẽnẽ xruwi*, where *hrm̃mã* 'temenos' ACC.SG.C is the direct object.

[430] Perhaps this could be due to a difference in stem formation; the Hittite verb reflects a nasal infix present.

[431] Cf. Serangeli 2018a, p. 319.

[432] Cf. DLL; Serangeli 2018a, p. 319.

4.5.2), the accent would have landed on the syllabic nasal. It is consequently possible that the regular outcome of an accented syllabic resonant is Lyc. *aR*, cf. e.g. potentially *t(a)rb(e)i-*^{di} (section 5.1.5).

9.2.3 *tas-*^{tti} 'to put, place'

3PL.PRES.A	*tasñti*	TL89,2 | (TL118,4)

The *s*-verb formed to *(t)ta-*^{di} (section 6.2.4). Unlikely to be a primary *sḱé/ó*-formation (unlike Hitt. *zikke/a-*^{mi}); the expected input sequence **dh₁-sḱé/ó-* would hardly yield Lyc. *tas-*, but rather ***ze-*^{ti} (vel sim.). Therefore, the stem *tas-* must be secondary, and an added imperfective sense compared to the base verb is expected, although this is not possible to securely establish on the basis of the scarce material.

9.2.4 *tus-*^{tti} 'place (upright), erect'

3PL.PRES.A	*tusñti*	TL44a,12 | TL45B,11

Formed to *tuwe-*^{ti} (section 7.3.3). May be a primary *sḱé/ó*-formation if *tuwe-*^{ti} if analysed as reflected a root extended with **-u-*, i.e. **(s)th₂u/dʰh₁u-sḱé/ó-* (Serangeli, 2018a, p. 321). Could otherwise be a recent innovation; if formed to an athematic *u*-stem (*CC-(ó)u-*), then the formation would be directly comparable to that of *xis-*^{tti} (section 9.2.5), which is likely formed to an original athematic *i*-stem (PIE **sh₂-(ó)i-*, see section 5.3.10).

9.2.5 *xis-*^{tti} 'perform animal sacrifice'

3SG.PRET.A	*xistte*	TL44,29.32

The *s*-verb corresponding to *xi-*^{ti} (section 5.3.10) of similar meaning. Provided that the etymology of *xi-*^{ti} presented in this thesis is correct (PIE **sh₂-(ó)i-*), *xis-*^{tti} is not a primary *sḱé/ó*-formation: the element *-i-* is suffigal, and a primary formation would attach the suffix *-sḱé/ó-* directly to the root (i.e. **sh₂-sḱé/ó-*, cf. Hitt. *zikke/a-*^{mi} < PIE **dʰh₁-sḱé/ó-* vs. *dāi-*^{hi}*/ti-* < **dʰh₁-(ó)i-*).

9.2.6 *xlas-*^{ti} 'to enclose; take control of (?)'

3SG.PRET.A	*xlaste*	TL29,14

Context completely broken, meaning inferred from base verb *xla(i)-*, section 6.1.6. In all likelyhood not a primary *sḱé/ó*-formation, on account of probably being formed to an already derived stem (*a/ai*-ablauting stem, see section 4.2.1). Note the aberrant spelling:

Lyc. **xlastte* is expected (cf. Schürr 2001, p. 135). This is very likely a spelling error; cf. *xalte* and *xalxxa* on the same inscription (section 9.1.4).

9.2.7 *zas-* '?'

(INF)	*zasãni*	TL150,9

Generally thought to be an *s*-verb to a base verb **za-* 'to make allotment, deliver (vel sim.)'. The base verb is in turn thought to be denominal to *za-* 'allotment', a nominalised iterative stem of PIE **d*^{h}*eh*$_{1}$- 'to place', i.e. Lyc. *zas-* « **za-* (verb) « *za-* 'allotment' < (virtual) PIE **d*^{h}*h*$_{1}$*-sḱéh*$_{2}$ « PIE **d*^{h}*h*$_{1}$*-sḱé/ó-*. However, as noted by Serangeli (2018a, p. 325), *zasãni* is a formally suspect infinitive to a verb *zas-*; the *-ã-* is unexpected, cf. *asñne* to *as-* 'to make' (section 9.2.1). Therefore, *zasãni* is as such perhaps better analysed as a noun separate from the verbal system (cf. GdL, p. 430).

9.3 *i*-conjugating *s*-stem verbs

9.3.1 *es-*^{i} 'be'

3SG.PRES.A	*esi*	N320,12 | (TL44b,50)
3SG.PRET.A	*estte*	TL44b,2
3SG.IPV.A	*esu*	TL39,5 | TL91,3

Meaning incontroversial.[433] Note that the 3SG.PRET.A form *estte* may belong to the verb *as-*^{tti} 'to do, make', for which see section 9.2.1.

Lyc. *es-*^{i} is clearly to be derived from the common Indo-European copula root **h*$_{1}$*es*. As such, Lyc. *esi* reflects PIE **h*$_{1}$*és-ti*, cf. Hitt. *ēszi*, Luw. *asti*, Skt. *ásti*, Gk. ἐστί, etc. This proves the post-Luwic, pre-Lycian sound change *-VsV-* < PL **VstV*, technically providing 3SG allomorphs *-i* (PRES.A) and *-u* (IPV.A). Note that the expected 3SG.PRET.A reflex would consequently be Lyc. *ese*. Lyc. *estte* is thereby a late secondary form, provided that it actually meant '(s)he was'.[434]

[433] Cf. GdL, p. 51; DLL, p. 17.

[434] Technically, *estte* could be read as a front-umlauted form of *as-*^{tti} 'to do, make'. However, front-umlaut is an ongoing process in Lycian, generally not seen on TL44 (cf. footnote 373).

9.4 *hi*-conjugating C-stem verbs

9.4.1 *ñn-^{e}* 'to lead, bring (vel sim.)'

3SG.PRES.A	*ñne*	TL106,2

Usually given as *zummẽñne-* in the literature.[435] Identification as *hi*-verb with Hajnal (1995, p. 121).[436] Meaning with this segmentation is 'to bring harm to (vel sim.)', somehow related to the noun *zuñme-* 'harm' attested several times elsewhere. Here, however, the sequence *zuñmẽñneti* is segmented as *zuñmẽ ñne=ti*, where *zuñmẽ* is an accusative neuter noun, *ñne* a finite verb, and *=ti* a relative pronoun.[437] See accordingly example (18).[438]

(18) **TL106,2-3**
⟨seizuñmẽxbati : zuñmẽñneti : θurtta : señnaha [...]⟩

se=i *zuñm-ẽ* *xba-ti*
CONJ=3SG.DAT/LOC harm-NOM/ACC.SG.N inflict-3SG.PRES.A
zuñm-ẽ *ñn-e=ti* *θurtt-a*
harm-NOM/ACC.SG.N bring-3SG.PRES.A=RELPRON.NOM.SG uncle-DAT/LOC.SG
señnah-a
related-DAT/LOC.SG

'And (s)he inflicts harm upon it/him/her, (s)he who brings harm to the related uncle'

It is also possible that *zuñmẽñne* is a univerbated form, but the verb is crucially not denominal to the noun *zuñme-*. The analysis by Serangeli (2018b, pp. 208f) with *zuñmẽñne-* as a *ié/ó*-denominative formed to *zuñme-*, where Luwic raising does not occur due to the yodh of the suffix assimilating to the preceding nasal (Lyc. *-mẽñneti* < **-men-ié-ti*),[439] is unlikely in light of e.g. the verb *qehñni-*, clearly denominal to *qehñ-* and with Luwic raising (see section 5.3.5).

[435] Cf. DLL, p. 89.

[436] Pace Neumann (GdL, p. 237) and Serangeli (2018b, p. 208), who analyse the following *=ti* not as a relative pronoun but as the verbal ending.

[437] Word boundary between *zuñmẽ* and *ñne* also with Neumann (GdL, p. 237), but not *=ti* as RELPRON.

[438] Note that an interpretation with *ñneti* as a 3SG.PRES.A predicate and *θurtta señnaha* in the nominative as the subject is technically also possible. As such: 'the related uncle brings harm to him/her'. This reading would not impact the general argument made here.

[439] For *zuñme-* as an old neuter *men*-stem, see Hajnal 1995, pp. 112.

In this thesis, Lyc. *ñn-*^{e} is taken as cognate to Hitt. *nanna-*^{hi}*/nanni-* 'to lead, drive'[440] and CLuw. *nana-* 'to lead (vel sim.)'.[441] Following Kloekhorst & Lubotsky (2014), the proper PIE radical reconstruction is *(s)neh₁-* 'to turn'. Hitt. *nāi-*^{hi}*/ni-* reflects an athematic *i*-stem to the same root (i.e. **nh₁-(ó)i-*), while *nanna-*^{hi}*/nanni-* reflects an original reduplicated formation[442] **ne-n(ó)h₁-*. Under this analysis, the hitherto enigmatic geminated nasal is easily explainable as generalised from the plural stem **ne-nh₁-*.[443] The same formation yields CLuw. *nana-*, i.e. 2SG.PRES.A[444] ⟨na-na-a-at-ti⟩ < PIE **ne-nóh₁-th₂ei*, 3PL.PRET.A ⟨na-na-an-ta⟩ < (virtual) PIE **ne-nh₁-énto*.[445] The Lycian 3SG.PRES.A form *ñne* is likewise completely regular from a stem **ne-n(ó)h₁-*: Lyc. *ñne* < PL **nə-nə́ʔ-ə* < PA **ne-nóʔ-ẹ* < PIE **ne-nóh₁-ei*.[446] The initial geminated nasal is the regular reflex of an apocopated reduplication syllable (see Heubeck 1985). Note finally that the analysis of *ñneti* as the finite verb form, favoured by Neumann and Serangeli, is essentially compatible with the etymology suggested here—original *hi*-conjugating verbs are expected to be reflected as Lycian unleniting *e*-stems anyway (see section 4.3.2).

The meaning of the PIE *(s)neh₁-* 'to turn' and its reduplicated formation 'to lead, drive'[447] is highly compatible with the Lycian attestation of *ñne*. Either 'to turn', 'to lead', 'to bring', or any related notion would fit well with taking the object 'harm' and indirect object 'related uncle'.[448] Cf. example (18).

9.4.2 *ub(e)-*^{e} 'dedicate, offer'

3SG.PRES.A	*ube*	TL44c,13
3SG.PRET.A	*ubete*	N311,1 | N313m

Meaning uncontroversial since Laroche (1967, pp. 56f).[449] Secure Luwic cognate found

[440] Analysed in Hittite as a derivative to *nāi-*^{hi}*/ni-* 'to turn', cf. EDHIL, pp. 598f.

[441] Cf. CLL, p. 154.

[442] Incidentally thus also Kloekhorst (EDHIL, p. 600), but with erroneous radical reconstruction.

[443] The plural forms with an *-i-*, e.g. 3PL.PRES.A *nanniyanzi*, must however be analogical to those of *nāi-*^{hi}*/ni-*, e.g. *niyanzi*.

[444] Grammatical analysis with Melchert (CLL, p. 154). However not possible to confirm due to fragmentary attestation.

[445] With spread of the ungeminated nasal in the SG to the PL, i.e. note 3PL.PRET.A is *not* regular ***nannanta*. Cf. the converse development found in Hittite.

[446] If related, Mil. *nẽnijeti* (TL44d,65) should on account of the *-ije-* be cognate to Hitt. *nāi-*^{hi}*/ni-* and reflect a *hi*-conjugating athematic *i*-stem PIE **nh₁-(ó)i-* with secondary reduplication and stem formation (cf. section 4.3.2).

[447] The only good positive evidence for this meaning is taken from Hittite.

[448] The translation of *ϑurtta señnaha* as 'related uncle' is taken from Schürr (2008, p. 183), who gives 'zur Soundso-Sippe gehörender Onkel'. Note that a nominative reading is also technically possible, cf. footnote 438.

[449] See also GdL, pp. 398f.

in Luw. *up(a)-* 'to bring'.[450] Thus, a PL stem reconstruction **(ʔ)ub-* is licensed. There is a further questionable cognate in CLuw. *ūppa-*, which contrasts from above forms with its unlenited consonant *-pp-* (CLL, p. 242).

It is superficially enticing to connect PL **(ʔ)ub-* 'to bring, offer' to Hitt. *uppa-^{hi}/uppa-* 'to send' on semantic grounds, although formal difficulties present themselves. Hajnal (1995, p. 121) connects all forms above and reconstructs a 3SG.PRES.A preform **au-pe-Hoi-ei* (sic). This cannot be correct, since the reconstruction of 'to give' as **pe-Hoi-* is itself deeply problematic (Kloekhorst, 2006a), and since it cannot account for the vacillation **-p-/-b-*.

In EDHIL, pp. 921, a link between CLuw. *ūppa-* and Hitt. *uppa/i-* is rejected on account of the unsecured semantics of the CLuw. verb, and the Hittite verb is derived from **h₂ou-h₁p-(ó)i-* (same base as for 'to give'). Although this is a valid point, a tentative attempt at a connection will be made below.

Given Kloekhorst's reconstruction, the forms are irreconcilable; the expected outcome of **h₂ou-h₁p-(ó)i-* is PL **upi(a)-* (vel sim., cf. section 7.2.6). By the same logic as in the previous section, a potential path forward is to instead assume a preform without the *i*-suffix, i.e. **h₂ou-h₁(ó)p-*. In PL, this would give 3SG **ʔuʔəbə* : 3PL **ʔuʔpanti* (vel sim.). The 'root vocalism' would then be generalised in favour of the plural, and the radical coda **-b-* from the singular. If we want to connect CLuw. *uppa-*, here is where the split occurs, yielding two separate verbal stems: one with the final radical from the singular and one from the plural. Thus we arrive at the valid PL input verb 3SG *ube* : 3PL **ubanti*, from which all attested forms are derivable. In Hittite, the resultant plural form *uppanzi* would form the basis for the verb as a whole, which would then be subjected to analogical influence from the sister verb *pāi-^{hi}/pi-* 'to give' (yielding forms such as *uppai* and *uppiyanzi*).

Although possible, note the many analogies required in the above scenario, which to my mind is the optimal one if the need for a connection of all Anatolian forms is perceived as pressing. As such, this is to be regarded as a *highly* tentative possibility.

[450] CLuw. forms: 2SG.IPV.A ⟨ú-pa⟩, 3SG.PRET.A ⟨ú-pa-at-ta⟩, 3PL.PRES.A, 3PL.IPV.A ⟨ú-pa-an-du⟩. HLuw. forms: 3SG.PRES.A ⟨u-pa-i⟩, 1SG.PRET.A ⟨u-pa-ha⟩, 3SG.PRET.A ⟨u-pa-ta⟩, etc. Note that the final -(a)- is likely not part of the stem, but rather an artifact of the writing systems.

10 Conclusions

In section 2.1, two primary purposes of the present thesis were established. The first was to provide a comprehensive synchronic description of the Lycian finite verb, and the second to account for the described phenomena from a diachronic perspective. In this concluding section, it is demonstrated how these purposes have been fulfilled.

The attempt to describe the Lycian finite verb has resulted in a classification of all Lycian verbs according to two criteria, i.e. *stem formant* and *ending allomorphy*. The evaluation of all Lycian verbs according to these criteria (sections 5 through 9) has yielded 5 macro classes, further subdivided into 19 subclasses, with each subclass subject to discussion in its own separate section (section 4 with subsections).

On table 1 in section 3, all finite verb endings in Lycian have been gathered. Consideration has been taken to the full range of Lycian ending allomorphy. Furthermore, in section 3.2, the formulation of the principle governing the distribution of nasalised endings in Lycian has been further refined, building on the work of Adiego (2015).

With regards to the second purpose, the diachrony of all verbal endings and the mechanisms governing their distribution are treated in section 3 (with subsections). Moreover, the ancestral types of all the presently established verbal stem classes have been determined (section 4 with subsections). The schema in figure 5 of section 4.6 summarises all conclusions made concerning the diachrony of the Lycian verb classes. New proposals include the linking of both the *i/ei*-ablauting class and the leniting *e*-stem class to the same ancestral types, i.e. the causative/iterative *CoC-éie/o*-type and the denominative *o-ié/ó*-class (represented in Hittite by the *hatrae*-class), and the reconciliation of the Lycian data with the PIE athematic *i*-stem class (i.e. the *CC-(ó)i*-type), represented in Lycian by e.g. *pije-*^{ti} 'to give'. However, there is still considerable work remaining. For example, no truly satisfactory scenario has yet been established for the *a/ai*-ablauting class.

A large part of the etymological inquiry found in this thesis concerns the individual verbal stems themselves. All verbs have been subject to diachronic investigation whenever possible. As a result, novel etymologies have been proposed for e.g. the Lycian 'build'-words (section 5.1.4), the Anatolian *puwa*-family (section 7.3.4), *ñn-*^{e} 'to lead; bring' (section 9.4.1), *xi-*^{ti} (section 5.3.10), etc.

The present thesis represents a humble attempt at systematising the analysis of a part-of-speech in a minor Indo-European language. It is hoped—and expected—that similar endeavours will be undertaken in the future, but on higher tiers such as Luwic and Anatolian. If this thesis could in any small way contribute to such an undertaking, it would gladden me deeply.

References

Adams, D. Q. (2013). *A Dictionary of Tocharian B: Revised and Greatly Enlarged.* Amsterdam - New York: Rodopi.

Adiego, I.-X. (2015). Lycian nasalized preterites revisited. *Indogermanische Forschungen*, *120*(1), 1–30.

Beekes, R. (2010). *Etymological Dictionary of Greek*. Leiden - Boston: Brill.

Bryce, T. R. (1986). *The Lycians in Literary and Epigraphic Sources*. Copenhagen: Museum Tusculanum Press.

Carruba, O. (1968). Die I. und II. pers. plur. im luwischen und im lykischen. *Die Sprache*, *14*, 13–23.

Carruba, O. (1977). Commentario alla trilingue licio-greco-aramaica di xanthos. *Studi micenei ed egeo-anatolici*, *18*, 273–310.

Carruba, O. (1984). Nasalization im Anatolischen. *Studi Micenei Ed Egeo-Anatolici*, *24*, 57–69.

Clackson, J. (2007). *Indo-European Linguistics: An Introduction*. Cambridge: Cambridge University Press.

Derksen, R. (2014). *Etymological Dictionary of the Baltic Inherited Lexicon*. Leiden - Boston: Brill.

Durnford, S. P. (1971). Some evidence for syntactic stress in Hittite. *Anatolian Studies*, *21*, 69–75.

Eichner, H. (1973). Die Etymologie von heth. mehur. *Münchener Studien zur Sprachwissenschaft*, *31*, 53–107.

Eichner, H. (1985). Malwa, eine hieroglyphen-luwisch-sidetische Wortgleichung. *Münchener Studien zur Sprachwissenschaft*, *45*, 5–21.

Eichner, H. (1986). Die Akzentuation des Lydischen. *Die Sprache*, *32*(1), 7–21.

Eichner, H. (2007). »und machte Grab um Grab«: Zur Interpretation der lykischen Inschrift TL 21 in Pinara. In *Studien in Lykien. Ergänzungshefte zu den Jahresheften des Österreichischen Archäologischen Institutes. Heft 8. Hrsg. von Martin Seyer* (pp. 103–108). Vienna: Österreichisches Archäologisches Institut.

Fortson, B. W. (2010). *Indo-European Language and Culture: An Introduction. Second edition.* Hoboken: John Wiley & Sons.

Friedrich, J., Kammenhuber, A., Joost, H., & Giusfredi, F. (2014). *Hethitisches Wörterbuch Band IV: I, Lieferung 22+ 23+ 24: Zweite, völlig neubearbeitete Auflage auf der Grundlage der edierten hethitischen Texte*. Heidelberg: Universitätsverlag Winter.

Garrett, A. (1991). The Lycian nasalized preterite. *Münchener Studien zur Sprachwissenschaft*, *52*, 15–26.

Garrett, A. (1992). Topics in Lycian syntax. *Historische Sprachforschung*, *105*(2. H), 200–212.

Giusfredi, F. (2009). Luwian *puwa*-and cognates. *Historische Sprachforschung*, *122*(1), 60–66.

Goldstein, D. M. (2014). Object agreement in Lycian. *Historische Sprachforschung*, *127*(1), 101–124.

Gusmani, R. (1964). *Lydisches Wörterbuch*. Heidelberg: Universitätsverlag Winter.

Gusmani, R. (1979). Lykisch *sm̃mati*. In *Florilegium Anatolicum: Mélanges offerts à Emmanuel Laroche* (pp. 129–136). Paris: Éditions de Boccard.

Güterbock, H. G., Hoffner, H. A., & van den Hout, T. P. J. (2002). *The Chicago Hittite Dictionary of the Oriental Institute of the University of Chicago. Volume ša, Fascicle 1, šā to šaptamenzu*. The Oriental Institute of Chicago.

Hajnal, I. (1994). Die lykische a-Stämme: Zum Werdegang einer Nominalklasse. In *In honorem Holger Pedersen. Kolloquium der Indogermanischen Gesellschaft vom 25. bis 28. März 1993 in Kopenhagen. Ed: Rasmussen, J. E.* (pp. 135–171).

Hajnal, I. (1995). *Der lykische Vokalismus: Methode und Erkenntnisse der vergleichenden anatolischen Sprachwissenschaft angewandt auf das Vokalsystem einer Kleincorpussprache*. Graz: Leykam.

Hawkins, J. D. (2000). *Corpus of Hieroglyphic Luwian Inscriptions: Inscriptions of the Iron Age. Part 1.* Berlin: de Gruyter.

Heubeck, A. (1981). Weiteres zur lykischen Verbalflexion. *Zeitschrift für vergleichende Sprachforschung*, *95*(1. H), 158–173.

Heubeck, A. (1982). Zur lykischen Verbalflexion. *Serta Indogermanica*, *40*, 107–119.

Heubeck, A. (1985). Konsonantische Geminaten im lykischen Wortanlaut. *Zeitschrift für vergleichende Sprachforschung*, *98*(1. H), 36–46.

Hoffner, H. A., & Melchert, H. C. (2008). *A Grammar of the Hittite Language. Part 1: Reference grammar*. Winona Lake: Eisenbrauns.

Houwink Ten Cate, P. H. J. (1961). *The Luwian population groups of Lycia and Cilicia Aspera during the Hellenistic period*. Leiden - Boston: Brill.

Imbert, J. (1896). De quelques inscriptions lyciènnes. *Mémoires de la Société de Linguistique de Paris*, *9*, 196–232.

Janda, M. (2005). Σῶμα - σῆμα and socrates' snub nose: The new IE root *$\underset{\frown}{\text{t}}iah_2$- "to strike". Paper presented at the *Colloquium 'Indo-European and its neighbours'* in combination with the *2. Indogermanistischer Arbeitstagung Münster/Leiden*, Leiden, 6 June 2005.

Jasanoff, J. H. (1988). The sigmatic aorist in Tocharian and Indo-European. *Tocharian and Indo-European Studies*, *2*, 52–76.

Jasanoff, J. H. (2010). Lycian *sttati* 'stands'. In *Investigationes Anatolicae: Gedenkschrift für Erich Neu. Ed: J. Klinger, E. Rieken, C. Rüster.* (pp. 143–152). Wiesbaden: Harrassowitz Verlag.

Jasanoff, J. H. (2018). The Phonology of Tocharian B *okso* 'ox'. In *Farnah. Indo-Iranian and Indo-European Studies in Honor of Sasha Lubotsky* (pp. 72–78). Ann Arbor - New York: Beech Stave Press.

Jenniges, W., & Swiggers, P. (2000). The Lycian shift ã > u and its implications for the study of the epigraphic materials. In *The Asia Minor Connexion. Studies on the Pre-Greek Languages in Memory of Charles Carter. Ed: Yoël L. Arbeitman.* (pp. 107–121). Leuven: Peeters Publishers.

Josephson, F. (1979). Anatolien *tarpa/i-*, etc. In *Florilegium Anatolicum: Mélanges offerts à Emmanuel Laroche* (pp. 177–184). Paris: Éditions de Boccard.

Kalinka, E. (1901). *Tituli Lyciae: Lingua Lycia Conscripti*. Caesareae Academiae Litterarum.

Kammenhuber, A. (1969). *Hethitisch, Palaisch, Luwisch und Hieroglyphenluwisch*. Leiden - Boston: Brill.

Kent, R. G. (1953). *Old Persian: Grammar, Texts, Lexicon*. New Haven: American Oriental Society.

Kimball, S. E. (1986). The Anatolian reflexes of the IE. syllabic resonants. *Indogermanische Forschungen*, *91*, 83–101.

Kimball, S. E. (1987a). *H3 in Anatolian. In *Festschrift for Henry Hoenigswald on the occasion of his 70th birthday. Ed: G. Zardona, N. H. Zide* (pp. 185–190). Tübingen: Gunter Narr Verlag.

Kimball, S. E. (1987b). Initial **h*₁*s*- in Hittite. In *Studies in Memory of Warren Cowgill. Ed: Calvert Watkins* (pp. 160–181). Berlin: de Gruyter.

Kimball, S. E. (1999). *Hittite Historical Phonology*. Institut Für Sprachwissenschaft Der Universität Innsbruck.

Kimball, S. E. (2017). Luwic **mar*. *Indogermanische Forschungen*, *122*(1), 207–218.

Kloekhorst, A. (2006a). Hittite *pai-/pi-* 'to give'. *Indogermanische Forschungen*, *111*, 110–119.

Kloekhorst, A. (2006b). Initial laryngeals in Anatolian. *Historische Sprachforschung*, 77–108.

Kloekhorst, A. (2006c). Čop's law in Luwian revisited. *Die Sprache*, *46/2*, 131-136.

Kloekhorst, A. (2008). *Etymological Dictionary of the Hittite Inherited Lexicon*. Leiden - Boston: Brill.

Kloekhorst, A. (2009). Studies in Lycian and Carian phonology and morphology. *Kadmos*, *47*(1-2), 117–146.

Kloekhorst, A. (2011). Accentuation and poetic meter in Hittite. In *Hethitische Literatur. Überlieferungsprozesse, Textstrukturen, Ausdrucksformen und Nachwirken. Akten des Symposiums vom 18. bis 20. Februar 2010 in Bonn. Ed. M. Hutter, S. Hutter-Braunsar* (pp. 157–76). Münster: Ugarit-Verlag.

Kloekhorst, A. (2013a). Lycian *qã-* and a new Proto-Anatolian sound law. Paper presented at the conference *'Luwic' Dialects: Inheritance and Diffusion*, 23 October 2013, at the University of Barcelona.

Kloekhorst, A. (2013b). Ликийский язык. In *Языки мира: реликтовые индоевропейские языки Передней и Центральной Азии. Ed: A. A. Kibrik* (pp. 131–154). Moscow: Academia.

Kloekhorst, A. (2016). The prehistory of HLuw. *izi*(*ya*)-. Paper presented at the conference *'Luwic' Dialects: Inheritance and Diffusion*, 9 March 2016, at the University of Barcelona.

Kloekhorst, A. (2018). The origin of the Hittite *ḫi*-conjugation. In *Farnah. Indo-Iranian and Indo-European Studies in Honor of Sasha Lubotsky* (pp. 89–106). Ann Arbor - New York: Beech Stave Press.

Kloekhorst, A., & Lubotsky, A. (2014). Hittite *nai-*, *nē-*, Sanskrit *nī-*, and the PIE verbal root **(s)neh₁*. In *Munus Amicitae. Norbert Oettinger a collegis et amicis dicatum. Ed: H. C. Melchert, E. Rieken, T. Steer* (pp. 126–137). Ann Arbor - New York: Beech Stave Press.

Kortlandt, F. (1981). 1st sg. middle **-H_2*. *Indogermanische Forschungen*, *86*, 123–136.

Kortlandt, F. (1987). The formation of the Old Prussian present tense. *Baltistica*, *23* (*2*), 104-111.

Kortlandt, F. (1989). Lithuanian *statỳti* and related formations. *Baltistica*, *25* (*2*), 104–112.

Kortlandt, F. (2010). Initial laryngeals in Anatolian. In *Studies in Germanic, Indo-European and Indo-Uralic* (p. 365-–386). Amsterdam - New York: Rodopi.

Kronasser, H. (1956). *Vergleichende Laut- und Formenlehre des Hethitischen*. Heidelberg: Universitätsverlag Winter.

Kronasser, H. (1966). *Etymologie der hethitischen Sprache*. Wiesbaden: Harrassowitz Verlag.

Kroonen, G. (2013). *Etymological Dictionary of Proto-Germanic*. Leiden - Boston: Brill.

Laroche, E. (1958). Comparaison du louvite et du lycien. *Bulletin de la Societé de linguistique de Paris*, *53*, 159–197.

Laroche, E. (1967). Comparaison du louvite et du lycien. *Bulletin de la Societé de linguistique de Paris*, *62*, 46–64.

Laroche, E. (1974). Les épitaphes lyciennes. In *Fouilles de Xanthos. Tome V: Tombes-maisons, tombes rupestres et sarcophages. Ed: P. Demargne* (pp. 123–148). Paris: Klincksieck.

Laroche, E. (1979). L'inscripion lycienne. In *Fouilles de Xanthos. Tome VI: La Stèle trilingue du Létôon. Ed: P. Demargne.* (pp. 49–128). Paris: Klincksieck.

Lubotsky, A. (1989). Against a Proto-Indo-European phoneme **a*. In *The New Sound of Indo-european: Essays in Phonological Reconstruction. Ed: T. Vennemann.* Berlin: de Gruyter.

Malzahn, M. (2010). *The Tocharian Verbal System*. Leiden - Boston: Brill.

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

Melchert, H. C. (1987). PIE velars in Luvian. In *Studies in Memory of Warren Cowgill. Ed: C. Watkins.* Berlin: de Gruyter.

Melchert, H. C. (1988). Luvian lexical notes. *Historische Sprachforschung*, *101*(2. H), 211–243.

Melchert, H. C. (1989). New Luvo-Lycian isoglosses. *Historische Sprachforschung*, *102*, 23–45.

Melchert, H. C. (1992a). The middle voice in Lycian. *Historische Sprachforschung*, *105*, 189–199.

Melchert, H. C. (1992b). Relative chronology and Anatolian: The vowel system. In *Rekonstruktion und Relative Chronologie: Akten der VIII. Fachtagung der Indogermanischen Gesellschaft, Leiden, 31. August - 4. September 1987* (pp. 41–53). Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.

Melchert, H. C. (1993). *Cuneiform Luvian Lexicon*. Chapel Hill: Chapel Hill Press.

Melchert, H. C. (1994). *Anatolian Historical Phonology*. Amsterdam - New York: Rodopi.

Melchert, H. C. (1997). Denominative verbs in Anatolian. In *Studies in Honor of Jaan Puhvel. Part one: Ancient Languages and Philology. Ed: D. Disterheft, M. Huld, J. Greppin* (pp. 131–138). Washington: Institute for the Study of Man.

Melchert, H. C. (2003a). The dialectal position of Lycian and Lydian within Anatolian. In *Licia e Lidia prima dell'Ellenizzazione. Atti del Convegno internazionale. Roma, 11-12 ottobre 1999. Ed. M. Giorgieri et al.* (pp. 265–272). Rome: Consiglio Nazionale delle Ricerche.

Melchert, H. C. (2003b). *The Luwians*. Leiden - Boston: Brill.

Melchert, H. C. (2004). *A Dictionary of the Lycian Language*. Ann Arbor - New York: Beech Stave Press.

Melchert, H. C. (2012). Hittite *ḫi*-Verbs of the Type $\bar{a}C_1i$, $-aC_1C_1anzi$. *Indogermanische Forschungen*, *117*(2012), 173–186.

Melchert, H. C. (2015). Lycian *alaha-* and *alada/ehali*. In *Genres épigraphiques et langues d'attestation fragmentaire dans l'espace méditerranéen* (pp. 153–163). Presses universitaires de Rouen et du Havre.

Melchert, H. C. (2016). New Luvian verb etymologies. In *Anatolica et Indogermanica: Studia linguistica in honorem Johannis Tischler septuagenarii dedicata. Ed: H. Marquardt, S. Reichmuth, J. V. García Trabazo* (pp. 203–212). Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.

Melchert, H. C. (2018). Denominative verbs in Luvian. Paper presented at the 5th *'Luwic' Dialects* workshop, 26 January 2018, Universidade de Santiago.

Meriggi, P. (1928). Über einige lykische Pronominal- und Verbalformen. *Indogermanische Forschungen*, *46*(1), 151–182.

Mittelberger, H. (1964). Zur Schreibung und Lautung des Hieroglyphenhethitischen. *Die Sprache*, *10*, 50–98.

Morpurgo-Davies, A. (1979). The Luwian languages and the Hittite *ḫi*-conjugation. In *Studies in Diachronic, Synchronic, and Typological Linguistics. Festschrift for Oswald Szemerényi on the Occasion of his 65th Birthday. Ed: B. Brogyanyi* (Vol. 11, pp. 577–610). Amsterdam: John Benjamins.

Morpurgo-Davies, A. (1980). The personal endings of the Hieroglyphic Luwian verb. *Zeitschrift für vergleichende Sprachforschung*, *94*(1./2. H), 86–108.

Morpurgo-Davies, A. (1982/83). Dentals, rhotacism and verbal endings in the Luwian languages. *Zeitschrift für vergleichende Sprachforschung*, *96*(2. H), 245–270.

Morpurgo-Davies, A. (1986). Fighting, Ploughing and the Karkamis kings. In *O-o-pe-ro-si. Festschrift für Ernst risch zum 75. Geburtstag. Ed: A. Etter* (pp. 142–43). Berlin: de Gruyter.

Morpurgo-Davies, A. (1987). 'to put' and 'to stand' in the Luwian Languages. In *Studies in Memory of Warren Cowgill. Ed: C. Watkins* (pp. 205–228). Berlin: de Gruyter.

Neumann, G. (1979). *Neufunde lykischer Inschriften seit 1901*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.

Neumann, G. (1983). Zur Erschliessung des Lykischen. In *Le lingue indoeuropee di frammentaria attestazione. Atti del Convegno della Società Italiana di Glottologia e della Indogermanische Gesellschaft. Udine, 22-24 settembre 1981. Ed: E. Vineis* (pp. 135–150). Giardini Editori e Stampatori in Pisa.

Neumann, G. (1984). Beiträge zum Lykischen VI. *Die Sprache*, *30*, 89–95.

Neumann, G. (1985). Hethitisch-luwische Wortstudien und Etymologien IV. *Zeitschrift für vergleichende Sprachforschung*, *98*(1. H), 20–25.

Neumann, G., & Tischler, J. (2007). *Glossar des Lykischen*. Wiesbaden: Harrassowitz Verlag.

Norbruis, S. (forthc.). The origin and spread of the 'i-mutation' paradigm and the prehistory of the Luwic nominal stem classes.

Oettinger, N. (1976). Der indogermanische Stativ. *Münchener Studien zur Sprachwissenschaft*, *34*, 109–149.

Oettinger, N. (1979a). Die Gliederung des anatolischen Sprachgebietes. *Zeitschrift für vergleichende Sprachforschung*, *92*, 74–92.

Oettinger, N. (1979b). *Die Stammbildung des hethitischen Verbums*. Nürnberg: Verlag Hans Carl Nürnberg.

Oettinger, N. (1992). Die hethitischen Verbalstämme. In *Per una gramatica ittita. Towards a Hittite Grammar. Ed: O. Carruba.* Pavia: Gianni Iuculano.

Oettinger, N. (2003). Review of Kimball, S. E. (1999). Hittite Historical Phonology. *Indogermanische Forschungen*, *108*, 339–341.

Oettinger, N. (2017). Das Suffix *-*uó*- im Indogermanischen und Anatolischen. *Indogermanische Forschungen*, *122*(1), 253–263.

Pedersen, H. (1904). Zu den lykischen Inschriften. *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen*, *37*, 189–207.

Pedersen, H. (1945). Lykisch und hittitisch. *Det Kgl. Danske Videnskabernes Selskab, hist.-filol. Meddelelser, XXX. 4*, 1–77.

Puhvel, J. (2017). *Hittite Etymological Dictionary. Volume 10: Words beginning with SA*. Berlin: de Gruyter.

Rasmussen, J. E. (1992). The distribution of e and a in Lycian. In *Rekonstruktion und Relative Chronologie: Akten der VIII. Fachtagung der Indogermanischen Gesellschaft, Leiden, 31. August - 4. September 1987. Ed: R. S. P. Beekes, A. Lubotsky, J. J. S Weitenberg* (pp. 359–366). Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.

Rieken, E. (1999). *Untersuchungen zur nominalen Stammbildung des Hethitischen*. Wiesbaden: Harrassowitz Verlag.

Rieken, E. (2007). Hieroglyphen-luwisch i-zi-ia-: ein Beitrag zur Rekonstruktion der urindogermanischen Kulturgeschichte. In *Darъ Slovesьny. Festschrift für Christoph Koch zum 65. Geburtstag. Ed: W. Hock & M. Meier-Brügger*) (pp. 263–275). München: Sagner.

Rieken, E. (2008). The Origin of the *-l* Genitive and the History of the Stems in *-īl-* and *-ūl-* in Hittite. In *Proceedings of the 19th Annual UCLA Indo-European Conference. Los Angeles, November 3 - 4, 2007. Ed: K. Jones-Bley, M. E. Huld, M. R. Dexter. Journal of Indo-european Monograph Series 54* (pp. 239–256). Washington: Institute for the Study of Man.

Rieken, E. (2009). Zur Entwicklung der neutralen *a*-Stämme im Hethitischen. *Die Sprache*, *48*, 145–155.

Rieken, E., & Sasseville, D. (2014). Social Status as a Semantic Category of Anatolian: The Case of PIE **-wo-*. In *Munus Amicitae. Norbert Oettinger a collegis et amicis dicatum. Ed: H. C. Melchert, E. Rieken, T. Steer* (pp. 302–314). Ann Arbor - New York: Beech Stave Press.

Ringe, D. A. (1996). *On the Chronology of Sound Changes in Tocharian: From Proto-Indo-European to Proto-Tocharian* (Vol. 1). New Haven: Americal Oriental Society.

Rix, H., et al. (2001). *Lexikon der indogermanischen Verben*. Wiesbaden: Reichert Verlag.

Sasseville, D. (2014). Luwian and Lycian agent nouns in **-é-leh$_2$*. *Die Sprache*, *51*(1), 105–124.

Sasseville, D. (2015). Anatolische verbale Stammbildung: das Faktitivsuffix **-eh$_2$-*. *Münchener Studien zur Sprachwissenschaft*, *69/2*, 283–297.

Schrijver, P. (2003). Athematic i-presents: The Italic and Celtic evidence. *Incontri linguistici*, *26*, 59–86.

Schürr, D. (1997). Luwisch-lykische Wettergottformeln. *Die Sprache*, *39*, 59–73.

Schürr, D. (2001). Bemerkungen zu Lesung und Verständnis einiger lykischer Inschriften. *Kadmos*, *40*(2), 127–154.

Schürr, D. (2004). „Handel" in den anatolischen Sprachen. Lykische und lydische Fußnoten zum hethitischen ‚Anitta-text'. *Indogermanische Forschungen*, *109*, 183–-203.

Schürr, D. (2008). Lykisch *θurtta-* und **señnaha-*. *Indogermanische Forschungen*, *113*, 176–186.

Schürr, D. (2016). Zu lykisch *θθẽ* und seiner etymologischen Interpretation. *Indogermanische Forschungen*, *121*, 123–130.

Serangeli, M. (2015). Lessico e Wortbildung indoeuropea in licio: Il caso di *asaxlaza-*, *xal-/xla(i)-* 'avere controllo su, dominare' *$*h_2el$-*. In *Genres épigraphiques et langues d'attestation fragmentaire dans l'espace méditerranéen* (pp. 165–176). Presses Universitaires de Rouen et du Havre.

Serangeli, M. (2018a). Lykische *s*-Verben und *sḱé/ó*-Bildungen im Anatolischen. In *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. Ed: E. Rieken.* (pp. 319–328). Wiesbaden: Reichert Verlag.

Serangeli, M. (2018b). *Sprachkontakt im alten Anatolien: Das Lykische aus synchroner und diachroner Perspektive*. Dissertation 2015. Edited version. Universiät zu Köln.

Seyer, M., & Eichner, H. (2019). Some terms for funerary monuments and their elements in Lycian tomb inscriptions from the linguistic and archaeological perspective (part 1). Paper presented at the 6th *'Luwic' Dialects* workshop, 28 March 2019, Universitat de Barcelona.

Shatskov, A. (2017). *Hittite Nasal Presents* (Unpublished doctoral dissertation). Leiden University.

Sideltsev, A. (2018). Hittite prosody. *Indogermanische Forschungen*, *123*, 113-136.

Skydsbjerg Friis, L. (2016). *The position of Lydian within Anatolian.* (Unpublished bachelors' thesis. University of Copenhagen. Retrieved 29-05-2019 from academia.edu.)

Starke, F. (1987). Die Vertretungen von uridg. *$*d^hugh_2tér$- „tochter" in den luwischen Sprachen und ihre Stammbildung. *Zeitschrift für vergleichende Sprachforschung*, *100*(2. H), 243–269.

Starke, F. (1990). *Untersuchung zur Stammbildung des keilschrift-luwischen Nomens*. Wiesbaden: Harrassowitz Verlag.

Stoltenberg, H. L. (1955). *Die termilische Sprache Lykiens*. Leverkusen: Gottschalksche Verlagsbuchhandlung.

Stoltenberg, H. L. (1959). Das termilische wort *hlm̃mi*. *Anatolia: revue annuelle d'archéologie*, 39–41.

Thomsen, V. L. P. (1899). Études lyciennes 1. *Oversigt over det Kgl. Danske videnskabernes selskabs forhandlinger*, 1–77.

Thurneysen, R. (1922). Zum Lydischen. *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen*, *50*(1./2. H), 35–40.

Tischler, J., & Neumann, G. (1983). *Hethitisches etymologisches Glossar. Teil 1, a–k*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.

Torp, A. (1898a). Lykische Beiträge I. *Videnskabselskabets Skrifter, Hist.-fil. Kl.*, *4*.

Torp, A. (1898b). Lykische Beiträge II. *Videnskabselskabets Skrifter, Hist.-fil. Kl.*, *6*.

Tritsch, F. (1950). Lycian, Luwian and Hittite. *Archiv Orientalni*, *18*(1), 494–518.

van de Kasteelen, F. (2015). *Syncope in Lycian* (Unpublished master's thesis). Leiden University, https://openaccess.leidenuniv.nl/handle/1887/34438 (retrieved 05-02-2019).

van den Hout, T. P. J. (1995a). Lycian consonantal orthography and some of its consequences for Lycian phonology. In *Studio Historiae Ardens: Ancient Near Eastern Studies Presented Philo H.J. Houwink ten Cate on the Occasion of his 65th Birthday. Ed: T. P. J van den Hout and J. de Roos* (pp. 105–141). Nederlands Historisch-Archaeologisch Instituut te Istanbul.

van den Hout, T. P. J. (1995b). Lycian *telẽzi(je)-*. *Kadmos*, *34*(2), 155–162.

Vernet, M. (2018). Evidence for an inherited *hi*-conjugation in Lycian: The 3sg. presents in *-e*. In *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. Ed: E. Rieken.* (pp. 363–372). Wiesbaden: Reichert Verlag.

Ševoroškin, V. V. (1977). Zu einigen Verwandtschaftsbezeichnungen im Lykischen und Milyischen. *Münchener Studien zur Sprachwissenschaft*, *36*, 131–144.

Watkins, C., & Kuryłowicz, J. (1969). *Indogermanische Grammatik. Bd. III, Formenlehre: Teil 1. Geschichte der indogermanischen Verbalflexion*. Heidelberg: Universitätsverlag Winter.

Yakubovich, I. (n.d.). *Annotated Corpus of Luwian Texts.* (URL: Mhttp://web-corpora.net/LuwianCorpus/)

Yakubovich, I. (2008). *Sociolinguistics of the Luvian Language*. PhD Dissertation. University of Chicago.

Yoshida, K. (1991). Reconstruction of Anatolian verbal endings: the 3rd person plural preterites. *Journal of Indo-European Studies*, *19*(3-4), 359–374.

Yoshida, K. (1993). Notes on the prehistory of preterite verbal endings in Anatolian. *Historische Sprachforschung*, *106*(1. H), 26–35.