

I therefore reconstruct *\*limmo-* < *\*li(k)smo-* < *\*lp-s-mo-*. For the formulation of such a formation see my analysis of OIr. *soimm* 'rich' < *\*s(u)ommi-* ← *su + ommo-* < *\*op-s-mo-*, of the type Gk. *πλοχμός*; cf. KZ 96, 1982-3, 173. However, in the participial *\*-mo-* adjective we have zero-grade of the base.

Univ. of Chicago  
Dept. of Linguistic  
1010 East 59th. Street  
Chicago, Illinois 60637  
USA

Eric P. Hamp

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(New Luvo-Lycian Isoglosses\*)

Since the publication of a series of articles by E. Laroche a quarter of a century ago,<sup>1)</sup> there has been general agreement that Luvian and Lycian show a particularly close affinity within the Anatolian family of Indo-European: see e.g. Neumann, *Lyk* (1969) 365 f., Oettinger, KZ 92 (1978) 74-92, and Starke, *Fs Neumann* (1982) 407 ff. Several scholars, however, have emphasized that important differences also exist between Luvian and Lycian: see Gusmani, *RIL* 94 (1960) 497-512, and Starke, op.cit., especially 424 f. It is not my purpose here to argue about the relative weight to be attached to the various similarities and differences. Nor will I attempt to decide whether we should ascribe the shared features to a period of common development or to contact phenomena. I merely wish to add to the list of features shared by Luvian and Lycian.<sup>2)</sup> These belong to both the phonological and lexical components of the languages.

### 1. PIE Tectals in Luvian and Lycian

In *Studies in Memory of Warren Cowgill* (1987) 182-204, I have argued that Luvian shows three distinct reflexes of PIE voiceless tectal stops:<sup>3)</sup> PIE *\*k̑* > Luv. *z*, PIE *\*k* > Luv. *k*, and PIE *\*k\** > Luv.

\*) Bibliographical abbreviations are those of *The Hittite Dictionary of the University of Chicago (CHD)*, Chicago: 1980 ff. In citing HLuvian texts I use the system of Hawkins, *AnSt* 25 (1975) 153 ff. I cite Lycian texts after E. Kalinka, *Tituli Lyciae lingua Lycia conscripti (TL)* Vienna: 1901. These texts are also available in revised form in J. Friedrich, *Kleinasiatische Sprachdenkmäler*, Berlin: 1932. Newer Lycian texts are indicated with the prefix N and numbered after G. Neumann, *Neufunde lykischer Inschriften seit 1901*, Vienna: 1979.

<sup>1)</sup> 'Comparaison du louvite et du lycien' *BSL* 53 (1958) 157-195, 55 (1960) 155-185, and 62 (1967) 46-66. One should also note the prior article by Tritsch, *ArOr* 18/1 (1950) 494-518.

<sup>2)</sup> Unless otherwise specified, 'Lycian' refers in what follows to 'Lycian' proper or 'Lycian A'. Data from 'Lycian B' or 'Milyan' will be cited when available.

<sup>3)</sup> Following a suggestion of H. Eichner, I have now adopted 'tectal' instead of 'velar' as a cover term for what were previously termed 'gutturals'. See Mayrhofer, *Idg. Gram.* I. 2 (1986) 102.

*k\** or *kw\**.) In reviewing the evidence for PIE *\*k̂* > Luv. *z*, I also touched upon alleged examples of PIE *\*k̂* > Lyc. *s*, but I was unable to discuss the Lycian developments in detail. Further investigation has shown that Lycian does indeed share the treatment I asserted for Luvian and confirms the latter.

### 1.1. PIE *\*k̂* > Lyc. *s*

I begin the discussion with the three famous alleged examples of PIE *\*k̂* > Lyc. *s*: *esbe-* 'horse', *s̃nta* 'hundred' and *sijēni* 'lie(s)'. About *esbe-* there is little more to say. The word occurs in the ablative-instrumental *esbedi* (TL 44 a, 36), and in a military context the meaning 'with cavalry' (thus already Bugge) is very likely. Since the use of 'horse' for 'cavalry' is commonplace (including in Hittite), the objection of Pedersen, LH 51, is invalid. Phonologically, Lyc. *e* continues regularly both PIE *\*e* and *\*o*, and Lyc. *b* (probably [v]) is the expected reflex of PIE *\*w* next to consonant: cf. *kbi-* 'two' and 'other' < *\*dwi-*. Therefore inherited Lyc. *esbe-* 'horse' from PIE *\*ek̂wo-* is perfectly in order. However, a borrowing is difficult to exclude (cf. OPer. *aspa-*), so this word alone is unsuited to demonstrating the change PIE *\*k̂* > Lyc. *s*.

The case of *s̃nta* is much more complicated. It seems best to begin by comparing forms whose analysis is somewhat clearer. Meriggi, *Fs Iliert* 266, suggests 'eighty' and 'ninety' respectively for *aitāta* and *nuñtāta*, making a series with *s̃nta* 'hundred'. However, as Carruba indicates, RIL 108.583 ff., these figures produce absurdly high penalties for tomb violations (the numbers refer to cattle and sheep). 'Eight' and 'nine' are not only more reasonable contextually, but also

<sup>4)</sup> New evidence for the change *\*k̂* > Luv. *z* was independently discovered by A. Morpurgo-Davies and J. D. Hawkins, whose interpretation of the historical developments differs markedly from mine: see their discussion in *Studi di storia e di filologia anatolica dedicata a Giovanni Pugliese Carratelli*. For earlier suggestions of 'satem' elements in Anatolian see my article cited above.

A parallel treatment of the corresponding voiced tectals cannot be demonstrated, because these sounds are regularly lost in Luvian and Lycian, a development which is itself another important isogloss. In addition to the example of *\*ghesri-* > CLuv. *iš(ša)ri-*, HLuv. *istri-*, Lyc. *\*izri-* 'hand' (Laroche, BSL 55.169), one may also cite *\*ghemro-* > CLuv. *\*im(ma)ra-* 'open field', which appears in the name *Immara-ziti-* = Lyc. *\*Ipre-sidi-* (via *\*impre-* with epenthesis): see Carruba, SMEA 22.275 ff. On the general loss of voiced tectals in Lycian and Luvian see my article cited above with references and Oettinger, MSS 34 (1976) 101 f.

amenable to a plausible morphological analysis. We may remove the final *-~ta* as a collective suffix: cf. CLuv. ŠU.MEŠ-*anta* '(sets of) hands' or IGI.ĦIA-*wanta* '(sets) of eyes' and see already Shevoroshkin, JIES 7.191 f. The remaining *\*aita-* and *\*nuñta-* may be derived from *\*ok̂tō* and *\*new̃m*, with the unobjectionable assumption that the ending of 'eight' was analogically spread to 'nine'.<sup>5)</sup>

If we turn next to *k̃bis̃ntāta*, we may remove the initial *kbi-* 'two' and final collective *-~ta*, leaving *-s̃nta-*, which also occurs independently in similar contexts. As Shevoroshkin, JIES 7.192, and Laroche, FdX 5.146<sup>4)</sup>, have independently concluded, the occurrence of *s̃nta* both alone and in combination with *kbi* points to a meaning 'ten' for *s̃nta*.<sup>6)</sup> They both interpret *k̃bis̃ntāta* as 'twenty', which is easiest phonologically. Lyc. *-s̃nta* may continue either *\*-k̂onteh<sub>2</sub>* or *\*-k̂m̃teh<sub>2</sub>* (cf. Grk. *-xovta* and Lat. *-gintā*). However, it is also worth considering (with G. Neumann, pers. comm.) the possibility that Lyc. *k̃bis̃nt(V)-* is 'twelve', comparable to Grk. *δώδεκα* or Lat. *duodecim*. Given our current imperfect understanding of Lycian syncope, it is hard to exclude a development of *\*dek̂mt(V)-* to Lyc. *s̃nt(V)-*, with loss first of the *\*e* and then *\*d* in the resulting cluster. The crucial point is that *k̃bis̃nt(V)-*, whether 'twenty' or 'twelve', probably continues *\*(d)k̂mt-*, with PIE *\*k̂* appearing regularly as Lycian *s*.

It is tempting to infer further that simple *s̃nta* is 'ten', but this interpretation is not without difficulties. The ending *-a* can hardly reflect anything but the PIE collective ending *\*-eh<sub>2</sub>*. Its appearance in 'ten' could be attributed to influence from the higher decads, but this is not a trivial assumption. It also remains troubling that *aitāta*, *nuñtāta* and *k̃bis̃ntāta*, presumably 'eight', 'nine' and 'twelve' or 'twenty', contain the ending *-~ta*, while *s̃nta*, supposedly 'ten', does not. I therefore continue to view the interpretation of *s̃nta* as 'ten' as merely probable.

<sup>5)</sup> Also reasonable is the assumption of a special development of *\*k̂* to yod in the cluster *\*k̂t-*, although predictably one is unable to cite parallels in the meager Lycian vocabulary known to us. Since the forms of 'eight' and 'nine' are attested only with the ending *-~ta*, the attested *a*-vocalism of the preceding syllables may be due to the Lycian umlaut rule and need not be regular: for the regressive assimilation rule affecting Lycian low vowels see my article to appear in The Proceedings of the VIII. Fachtagung der indogermanischen Gesellschaft and compare Neumann, *Lyk* 376, and Laroche, FdX 6.80-81.

<sup>6)</sup> Carruba's suggestion, RIL 108.586 f., that *s̃nta* means 'one' is both phonologically and morphologically implausible. The occurrence of *s̃nta* with an acc. sg. *wawā* 'cow' is no valid argument for 'one', since both Hittite and Luvian show the construction of a singular noun with numbers higher than one.

The word *sijēni* occurs eight times in the Lycian tomb inscriptions. It is normally collocated with the name of the tomb occupant. The appropriateness of a meaning 'lie(s)' is undeniable, but the morphology of the word has remained problematic, justifying doubts about the meaning and the presumed derivation from *\*kei-* (cf. Hitt. *kitta*, Skt. *śāye/śēte* 'lies'). Pedersen, *LH* 18, compares *sijēni* to the type of Hitt. *iyannai*. However, this analysis only makes sense if *sijēni* is pres. 3rd sg. 'lies'. Gusmani, *IF* 67 (1962) 162, with note 12, points out that the example *sijani* in *TL* 128,2 seems to occur with *amu* 'I': *amu sijani teli se=lada*. The cooccurrence with both first and third person subjects suggests a non-finite form, and Gusmani tentatively proposes a participle. In principle one could assume a reflex of an *\*-ono-* comparable to Germanic *\*-ana-*, but there is no other evidence for such a participle in Anatolian.<sup>7)</sup>

I believe that the interpretation of *sijēni* as 'lies' may be upheld, but not in the form suggested by Pedersen. I will soon present elsewhere the full evidence for the existence of the middle voice in Lycian. Here I can only sketch the main outlines of the argument. Thanks to recent work by Kazuhiko Yoshida,<sup>8)</sup> we now know that Anatolian inherited middle endings in final *\*-r* (at least in the third person), while the addition of the particle *-i* to the present middle is an independent but parallel development of the individual Anatolian languages.

Lycian would thus have inherited *\*kéyor* as pres. 3rd sg. 'lies' (cf. CLuv. *zīyar*). Predictably, we are not well informed about the fate of final *\*-r* in Lycian, but there are no attested words with final *-r*. In a language which loses even final nasal consonants it does not seem unreasonable to assume loss of final *-r* as well. Thus *\*kéyor* would have led to *\*sije*. We also know that under syntactic conditions which we do not yet understand most Lycian finite verbs receive an additional final nasal.<sup>9)</sup> In the present middle this would have given

<sup>7)</sup> The evidence for Anatolian *\*-ono-* cited by Watkins, *Flexion und Wortbildung* (1975) 376, is false. The putative Hittite ordinals in *-anna-* consist of accusatives in *-an* plus geminating *-a* 'and'. Palaic *militannaš* 'honied' is most plausibly analyzed as genitive singular of an abstract *\*militātar* 'sweetness' used predicatively.

<sup>8)</sup> *The Hittite Mediopassive Endings in -ri* (Ph. D. dissertation, Cornell Univ., 1986). This work will soon be published in revised form in the series *Studies in Indo-European Language and Culture* by de Gruyter.

<sup>9)</sup> While we do not yet understand the precise conditioning for this phenomenon, it is certainly not random, as already seen by Imbert, *MSL* 10 (1898) 217. See the thorough discussion by Meriggi, *IF* 46 (1928) 151 ff. The contention of

*\*sijē(n)*. Finally, based on the pattern of all other Anatolian languages which preserve the middle, we would expect Lycian eventually to add the particle *-i* marking the present: hence the attested pres. 3rd sg. *sijēni*.

This derivation appears to face the same obstacle as that of Pedersen: namely, that *sijani* in *TL* 128,2 is construed with a first person singular pronoun. The reading *sijani* is that of Kalinka, followed by Friedrich and others. However, if one reexamines Kalinka's drawing, *TAM* I 85, one finds that only the top of the first three letters is preserved. Given the shape of Lycian letters, one could just as well read *sixani*. Furthermore, Kalinka in his apparatus notes that Arkwright, who collated the inscription in 1894, reads [*s*] *ixani*, with the third letter clearly *x*!<sup>10)</sup> I assert that the attested *sixani* is the regular first person singular middle, derived from *\*keih<sub>2</sub>e(r)* in the same way as third person singular *sijēni* from *\*kéyor*. Given this account of the morphology, I now take the root etymology of Lyc. *si-* < *\*kei-* as assured.

In sum, then, we have one strong case for *\*k̂* > Lyc. *s* (*si-* 'lie') and two likely examples (*esbe-* 'horse' and *sīta* 'ten, decade'). However, since all three of these examples are individual lexical items whose semantic and morphological analysis can be challenged, they cannot alone prove the sound change PIE *\*k̂* > Lyc. *s*. Fortunately, there are two additional examples, both of which are cognate with Luvian examples showing *z*.

The new readings of HLuvian signs established by Hawkins, Morpurgo-Davies, and Neumann, *HHL* (1974), have shown that Luvian has two iterative suffixes: *-sa-* and *-za-*. In their discussion, *HHL* 185 ff., they tentatively equate Luvian iterative *-za-* with Hittite iter-

Laroche, *FdX* 6.87 f., that the phenomenon is purely graphic is manifestly false, as is his claim, *ibid.* 82, that *ē* and *ā* do not always indicate nasalized vowels. In the Trilingual the ratio of preterite finite verbs with nasalization to those without (9:2) is similar to that in the tomb inscriptions, where the nasalized forms predominate. Because final nasals are lost after *-i* and *-u*, the nasalization does not appear in the present active, but we have no reason to think that the nasalization was restricted to the preterite. We would therefore expect most present middles likewise to have had the final nasal.

<sup>10)</sup> Kalinka's reading is clearly influenced by the comparison with the more frequent *sijēni*, of which the form in 128,2 was taken to be a variant, with the well-known 'confusion' of *a* and *e* in Lycian. Since Arkwright in 1894 was operating with no preconceptions about what he expected to find, but merely trying to read the signs as best he could, it seems reasonable to give more weight to his reading than to Kalinka's.

ative *-šša-*. This equation is based on the fact that Luvian iterative *-šša-* had already been equated with Hittite iterative *-ške/a-*: see e.g. Laroche, *DLL* 135. The latter equation was based on the erroneous assumption that *\*k̂* occasionally disappears in Luvian. As indicated above (note 4), only voiced tectals disappear in Luvian, not *\*k*. Since both Hittite and Luvian show an iterative suffix *-šša-*, and Hittite *s* regularly corresponds to Luvian *s*, it seems only reasonable to equate Hittite iterative *-šša-* and Luvian iterative *-šša-*. This leaves Luvian *-za-* to match Hittite *-ške/a-*, and in view of other examples of Luvian *z* < *\*k̂*, I have made the equation, assuming *\*-ške/o-* > *\*-sza-* > *-za-* in Luvian. While I was able to cite parallels from Hittite, I was unable to show direct evidence in Luvian itself for the assumed simplification of *\*-sza-* to *-za-*.

It is therefore welcome to find corroborating evidence from Lycian in the form of an iterative suffix *-s-*. The clearest example is the stem *qas-*, which occurs twice in parallel contexts to the simple verb *qa-*:<sup>11</sup> *TL* 56,4 *m=ene qasttu ēni qlahi ebijehi se=wedri Wehñtezi* 'Let the mother of the local precinct and the city(?) of Phellos \_\_ him!' *TL* 150,6-8 *m=ene qastti Maliya Wedrēñni se=itlehi Trm̄mili huwedri* 'Maliya of W. and all the Lycian i. shall \_\_ him!'. Compare *TL* 94,2 *m=ene itlehi qāñti Trm̄mili* 'The Lycian i. shall \_\_ him!'. We likewise find pres. 3rd plural *tasñti* 'they shall place' (*TL* 89,2 and 118,4) beside simple *tāti*. In view of these clear cases it is likely that *as-* (pres. 3rd sg. *astti* in *TL* 29,3 and 65,17; pret. 3rd sg. *astte* in *TL* 29,4 and 44b, 50) stands in the same relationship to *a-* 'do, make', as suggested by Carruba, *SMEA* 22 (1980) 290. I would also interpret *tusñti* (*TL* 44a, 12) as pres. 3rd plural of a *tus-* beside *turwe-* 'put, place': see Shevoroshkin, *JIES* 7.192, contra Laroche, *FdX* 5.146<sup>41</sup>. The corresponding pres. 3rd singular *tustti* is attested in Milyan at *TL* 44d, 21.

This Lycian iterative suffix *-s-* cannot be equated with Hittite and Luvian *-šša-*, since *\*s* regularly becomes *h* in Lycian: cf. *\*h<sub>2</sub>eh<sub>x</sub>seh<sub>2</sub>-* > Hitt. *ḫašša-* but Lyc. *\*xaha-* 'hearth, altar' (for the Lycian see Laroche, *FdX* 6.64). As Pedersen, *LH* 27, already saw, Lycian iterative *-s-* must continue *\*-ške/o-*. Since inherited *\*st* appears as Lycian

<sup>11</sup>) Since the form *qā(ñ)ti* must in some cases and can in all cases be taken as plural, there is no justification for the earlier assumption of a stem *qān-* and equation with Hitt. *ḫanna-* 'judge' (see e.g. Pedersen, *LH* 26f.). The equation is in any case phonologically impossible, since the Lycian equivalent of Hitt. *ḫanna-* could only be *\*xān-*: cf. *xahba-* 'grandchild' (once *xāhb!*) < *\*h<sub>2</sub>onsu-* = Luv. *hasu* 'descendant'.

*s* in internal position (*\*h<sub>1</sub>esti* > *esi* 'is'), the attested cluster in the third singulars *qastti*, *tustti*, etc. reflects the thematic inflection of *\*-ške/o-*: *\*-sketi* > *\*-seti* > *-stti* with syncope after the change of original *\*-st* to *-s-* (again as per Pedersen).

We cannot determine whether the change of *\*-sk̂-* to Lycian *-s-* reflects a direct simplification of the internal cluster (like *\*-st-* to *-s-* above) or a change of *\*-sk̂-* to *-ss-* and then simplification to *-s-*. Thus Lycian iterative *-s-* does not directly demonstrate *\*k̂* > Lyc. *s*. However, the existence of Lycian iterative *-s-* < *\*-ške/o-* does corroborate the derivation of Luvian iterative *-za-* from *\*-ške/o-* (via *\*-sza-*) and the general claim of *\*k̂* > *z* in Luvian.

In the aforementioned article on Luvian I also proposed that the Luvian 'ethnic' suffix *-izza-* might continue PIE *\*-ik̂o-* or *\*-isk̂o-*. This derivation was extremely tentative in view of the complete lack of evidence elsewhere in Anatolian for such a suffix.<sup>12</sup> Once again Lycian provides supporting evidence in the form of a suffix *-is(e)-*.

This suffix is best attested in the form *Trm̄misñ* (acc. sg.), the name for Lycia itself. However, as Pedersen, *LH* 53, pointed out, one can interpret this usage as elliptical for '(the) Lycian (country/land)'. Evidence that *-is(e)* actually forms ethnic adjectives appears in the collocation *Ijānisñ Spartazi Atānazi* 'Ionian, Spartan, Athenian' (*TL* 44b, 27), where *-is(e)-* is parallel to the well-established ethnic suffix *-zi-*. The example *Ijānisñ* beside *Ijānā* (*TL* 44a, 52) is also important in showing that the suffix is *-is(e)-*, with an *-i-* before which the final stem-vowel of the base is deleted: cf. CLuv. *URUTaurisizza-* < *URUTaurišā*.<sup>13</sup> The function of Lycian *-is(e)-* is now confirmed by *Zemuris* = Grk. *Λιμυρής* 'of Limyra' in N312, 5.

One problem stands in the way of an equation of Lyc. *-is(e)-* and Luv. *-izza-*. The Lycian suffix in all clear cases appears to be athe-

<sup>12</sup>) Actually, there may be an isolated example in Hittite. The adjective *malīšku-* 'weak' probably represents a *\*ml-isko-* (with a denigrating sense seen elsewhere in this suffix). The *u*-stem would be secondary after its antonym *daššu-*, with which it is expressly contrasted in the texts (cf. likewise *idālu-* after *āššu-*?). See already Eichner, *MSS* 31.86<sup>14</sup>. The counterarguments of Weitenberg, *Die hethitischen u-Stämme* 119, in favor of a hypothetical *\*malīškui-* are not well-founded.

<sup>13</sup>) This deletion makes no sense synchronically in either Lycian or Luvian. This peculiar shared feature, characteristic for PIE suffixes with initial *\*i-*, is an additional argument for equation of the Lycian and Luvian suffixes and derivation from a PIE preform.

matic: anim. acc. sg. *Trīmīsīn*, *Ijānīsīn*, *Wazzīsīn*; nom. sg. *Trīmīs* (TL 44b, 50–51). In N312,5 *Zemuris(-)e[ ]* before a break is unclear. One would expect, of course, Lyc. *-ise-* = Luv. *-izza-* < *\*-i(s)ko-*. We may account for this discrepancy by assuming the same apocope (or perhaps syncope) seen in the Lycian suffix *-ah(e)-* which forms relational adjectives from proper names. This suffix continues a Common Anatolian *\*-asso-* and equates with Hitt. *-ašša-*, as per Laroche, *BSL* 55.159 ff. It stands beside the more common Luvian *-ašši-* = Lyc. *-ahi-* (Mil. *-asi-*). Neumann, *Lyk* 384, among others, has questioned this account, suggesting instead that possessive forms in *-ah(e)* continue old genitive singulars in *\*-as*. One fact, however, argues decisively for Laroche's explanation. As he stresses (likewise Meriggi, *SMEA* 22.217), possessive forms in *-ah(e)-* (or *-eh(e)-* with umlaut) are attested for *i*-stem nouns: e.g. nom. sg. *Masasi* (TL 134,1), poss. *Masasah* (TL 98,1) and *Masasahe* (TL 118,1). An inherited genitive singular to an *i*-stem noun could only appear as Lycian *\*-ijah* or *\*-ijeh* (cf. HLuv. *-iyas*). The loss of stem-final *-i-* before the *-ah(e)-* suffix confirms Laroche's derivation from *\*-assa-*: cf. the same development in Luvian *-ašši-* (CLuv. *ḫarmaḫi-* 'head', but *ḫarmaḫašši-* 'of the head') and Lycian *-ahi-* (*ēni-* 'mother', but *ēnehi-* 'maternal'). Laroche speaks of apocope in explaining *-a/eh* beside *-a/ehe*, but the accusative singular in *-a/ehn* suggests that we should perhaps think of syncope instead: i.e., anim. nom. sg. *\*-assos* > *\*-aheh* > *\*-ahh* > *-ah* just as anim. acc. sg. *\*-assom* > *\*-ahen* > *-ahn*.

In any case, we may assume a parallel development in the suffix *-ise-* to anim. nom. sg. *-is* and anim. acc. sg. *-isn*. If Lyc. *-is(e)-* = Luv. *-izza-* reflects *\*-iko-*, we would have a direct example of PIE *\*k̑* > Lyc. *s* and Luv. *z*. If the source is *\*-iskō-*, the developments would be the same as in the iterative suffix discussed above. In this case, the Lycian *s* could once again result directly from simplification of *\*sk̑* or via *\*ss*. The main point is the Lycian corroboration of the derivation of the Luvian suffix from a preform with palatal *\*k̑*. This example is of particular importance because the nominal suffix would have been either *\*-iko-* or *\*-iskō-* with consistent *o-* vocalism. This virtually eliminates any chance that the appearance of *\*k̑* as *z* in Luvian is due to some conditioned change before front vowels (generalization of a palatal treatment from the vocative with *e*-grade is not credible). We must assume an unconditioned change of PIE *\*k̑* to Luvian *z* (cf. my more tentative stance in the paper cited above).

As stated above, the presence of *\*s* in *\*-ske/o-* > Lyc. *-s-* and its possible presence in *\*-i(s)ko-* > Lyc. *-is(e)-* prevent these examples from directly proving *\*k̑* > *s* in Lycian. However, the equation of these Lycian suffixes with Luvian *-za-* and *-izza-* respectively does confirm beyond doubt the change of PIE *\*k̑* to Luvian *z*. The now solid equation of Lyc. *si-* and CLuv. *zi-* 'lie' < *\*kei-* in turn does argue strongly for Lyc. *s* < *\*k̑*. In view of this example there is no longer any good reason to suppose that Lyc. *esbe-* = HLuv. *azu(wa)-* 'horse' represents anything other than a direct inheritance of *\*ekwo-*. A 'satem' treatment of PIE *\*k̑* may thus be added to the common features of Luvian and Lycian.<sup>14)</sup>

## 1.2. PIE *\*k* > Lyc. *k*

There is only one good example of PIE velar *\*k* in Lycian, but it is quite solid: Lyc. *tukedri-* 'statue' contains as its first element PIE *\*twek-* 'visible body', seen also in Skt. *tvac-* 'skin' and Hitt. *tu(e)kka-* 'body; member'.<sup>15)</sup> Neumann, *Weiterleben* 55 f., analyzes *tukedri-* as a secondary animate *i*-stem to a virtual *\*tu(e)kkatar*. In this case the *e* of the Lycian word would be due to the Lycian umlaut rule (see note 5 above). One should also consider the possi-

<sup>14)</sup> We can only speculate, of course, on the precise phonetic developments, but the likeliest assumption for Luvo-Lycian is a voiceless palatal affricate. In Luvian the sound remains an affricate which falls together at least graphically with the dental affricate resulting from original *\*t + s* clusters or the assibilation of *\*t* before *\*y*. We cannot be absolutely certain, however, that the sounds merged phonetically or even phonologically, and the product of *\*k̑* may still have been a palatal. In Lycian the outcome of *\*k̑* is written with the same sound as *s*, suggesting a voiceless dental sibilant. However, since the 's' from *\*k̑* does not share in the change of original *\*s* to *h* in Lycian A, it must have still been distinct from original *\*s* after the division of Lycian and Milyan. Note that Lycian *s* from *\*k̑* is also distinct from the sound *z* which results from assibilation of *\*t*: cf. *hrzzi-* 'upper' with suffix *\*-tyo-*.

I wish to emphasize again that the Luvo-Lycian treatment of PIE *\*k̑* is 'satem' only in the sense that the phonetic development to an affricate or fricative is similar to that in the satem languages. In phonological terms the Luvo-Lycian group is neither satem nor centum, since it merges unconditionally neither the velars and labiovelars nor the palatals and velars, but keeps all three sets of tectals distinct.

<sup>15)</sup> I retain the Hittite-Sanskrit equation, which is exact both morphologically and semantically. On the problem of including Greek *σάκος* 'shield' in this equation see the article by B. Joseph in *Fs B. Schwartz* (1988) 205–213.

bility of a compound of *tu(e)kk(a)-* + *esri-* 'image' (Hitt. *eš(ša)ri-*, HLuv. *atri-*). In either case, PIE *\*k* would appear in Lycian as *k* before a front vowel, in contrast to *s* from PIE *\*k̑*. Since Lycian *k* occurs with few exceptions in the environment of front vowels, it is possible that PIE velar *\*k* has another reflex in Lycian in the environment of back vowels, but this cannot be demonstrated at present.<sup>16</sup>

### 1.3. PIE *\*k\** > Lyc. *t* and *k*

PIE labiovelar *\*k\** definitely appears in Lycian as *t* before *i*: the Létôon Trilingual has finally confirmed the long-disputed claim that some instances of Lyc. *ti* represent forms of the relative/interrogative stem *\*k̑i-*: Lycian *ti* = Grk. *ὅς* (*ōs*) (see Meriggi's concession, *SMEA* 22.242).

Compelling examples of *\*k\** before *e* are still lacking. However, Carruba's interpretation, *Sprache* 24.177, of *teli* as 'where', < *\*k̑e/oli* beside *ebeli* 'here' is extremely attractive (see e.g. *TL* 128,2 cited above). Other etymologies explaining Lycian words in *te-* from preforms with *\*k\** I regard at present as mere possibilities: see Pedersen, *LH* 47 ff., Laroche, *BSL* 62.57 f., and Carruba, *Sprache* 24.163 ff.

The equation of Lyc. *k̑m̑ēti-* with Grk. *ὅσος* 'how/ as much as' in N 320,16.21.23 points to delabialization of *\*k\** in the vicinity of a labial: see Laroche, *FdX* 6.70. It is important to note that *k̑m̑ēti-* also occurs in Milyan at *TL* 44 d, 64. The fact that labiovelar *\*k\** appears as Lycian *k* next to labials does not alter the fact that before front vowels Lycian shows a contrast between *s* from palatal *\*k̑* (*si-* 'lie' < *\*k̑ei-*), *k* from velar *\*k* (*tukedri-* 'statue' < *\*twek-*), and *t* from labiovelar *\*k\** (*ti-* 'who' < *\*k̑i-*). Lycian thus clearly shares with Luvian a three-way contrasting treatment of tectal stops.

### 2. CLuv. *šā-*, *šašša-* = HLuv. (*\*69*)*sa-* = Lyc. *ha-*

The CLuvian verb stem *šā-* is attested more than a dozen times. Although many of these occurrences are in broken contexts, the pat-

<sup>16</sup> We have the Milyan cognate in *tu.adrala* 'of/pertaining to a statue' (*TL* 44 d, 8-9) (thus also Meriggi, *Mél. Pedersen* 514). It is a great misfortune that the letter for the crucial tectal before *a* is hopelessly damaged.

tern of its use argues that it is the functional equivalent of Hitt. *tarna-* 'release, let go' or *lā(i)-* 'untie, release'. The meaning of the simple verb *šā-* is shown by the following (*KUB XXXV* 54 II 49 ff.; *StBoT* 30.68): [*š*]*āndu=ata parnantini* [*h*]*ūmmatiš haššanittiš hurwaḥ-ḥuršantini tiyammiš taruṣantiš ad[duwal=za utar=ša halliṣ=ša paratan=* [*za*] ... 'May the house(s), the pediment, the hearth, the \_\_, the earth, the statue let them go, the evil word, the sickness(?), the impurity ...'. Compare the Hittite parallel (*KUB XVII* 10 IV 9 ff.): *par-nanz=at tarnau ištarniyaš=at annašnanza tarnau* <sup>GI5</sup>*luttanz=at tarnau* etc. 'May the house let them go, may the inner \_\_ let them go, may the window let them go, etc.'. The 'them' here refers to the 'rage, anger, sin and resentment' of Telipinu.

The phrase [U]R.MAH *šātt[a]* 'released the lion' (*KBo* VII 66 II 2), followed by two more instances of *šātta*, recalls Hittite UR.MAH *zamaš lāttat* 'the lion was released from the \_\_' (*KUB VII* 1 + *KBo* III 8 III 29), which occurs in a text where various animals and natural phenomena are first 'knotted together' (*ḥamink-*) and then 'released' (*lā(i)-*). The sequence *ḥamink-* ... *lā(i)-* also seems to be paralleled by CLuv. *ḥapita* 'attached, stuck to' and *šātta* 'released' (*KUB XXXV* 105 I 6-7). For CLuv. *ḥapā(i)-* 'stick to, attach' see my discussion in *HS* 104(198).

The sense 'let go, release' for simple *šā-* and its equivalence to Hitt. *tarna-* are confirmed by its use with the preverb *appan/appanda*. This is clearest in the case of the iterative stem *šašša-* (*KUB XXXV* 133 III 17; *StBoT* 30.281): *anz=ata* <sup>d</sup>*U-anza pipiṣša anz=ada EGIR-anda šašša* 'Give them to us, oh Storm-god, grant them to us (in perpetuity)'. The earlier equation of *šašša-* with Hitt. *šeš-* 'sleep' (e.g. Laroche, *DLL* 87) makes absolutely no sense in the context. The structure of the two clauses is entirely parallel: *šašša* must be 2nd sg. inv. of a transitive iterative verb, with *-ata* as its object, just like *pipiṣša*. Furthermore, the combination *appan(da) ša(šša)-* here has the same special sense as Hitt. *appan tarnā-* 'leave behind' hence 'grant permanently, in perpetuity'. Compare first of all the following from the Vow of Puduḥepa (*KUB XXXI* 53 + Vs 12-13; *StBoT* 1.20-21): 1 DUMU.NITA <sup>m</sup>*Tatiliš ŠEŠ* 'Titai ANA <sup>m</sup>*Apallu šallanumanzi ADDIN EGIR-an=ma=an=šī=kan ŪL tarnahḥun* 'I gave one boy, Tatili, brother of Titai, to Apallu to raise, but I did not grant him to him permanently'. See further the Apology of Hattušili (*KUB I* 1 IV 66-67; *StBoT* 24.28-29): *ammug=ma ANA* <sup>d</sup>*IŠTAR GAŠAN-YA É* <sup>m.d.XXX-d</sup>*U ADDIN [n=a]t=kan EGIR-an tarnahḥun n=at parā piḥ-ḥun* 'But I gave the house of Armadatta to Ishtar, my lady. I granted

it in perpetuity. I gave it away'. Here as in the Luvian passage the simple idea 'give' is reinforced by *appan tarna-* (Luv. *appanda šašša-*) 'leave behind', i.e. 'grant permanently, cede'.<sup>17)</sup>

The meaning 'cede, grant' established for *appanda šašša-* is also appropriate for the occurrence of *appan šā-* earlier in the same text (*KUB XXXV 133 II 10-11*; *StBoT 30.280*): [(a=d)]u=aš EGIR-an šandu x[...] (wa)]šuienzi LÚ.MES-enzi[ ]. The *-du-* 'to him' must refer to the subject of the preterite third singular verb forms of the immediately preceding sentences. Although the attested *wašuienzi* LÚ.MES-enzi is probably the subject of the next sentence, it is likely that 'the good men' are the subject of *appan šandu* as well. Since *šandu* is a plural transitive verb, the enclitic *-aš* cannot be anim. nom. singular, but must be anim. acc. plural, the direct object. I shall soon present elsewhere further evidence for CLuv. enclitic *-aš* as anim. acc. plural. Here the sense must be: 'Let them (the good men) grant them to him'. The antecedent of *-aš* 'them' is to be sought in the missing part of the preceding sentences.<sup>18)</sup>

In view of the above examples of *appan(da) šā-* and the preceding context, we should also take the following passage as an example with preverb (*KUB IX 31 II 33-34*; *StBoT 30.53*): <sup>d</sup>f.A-aš-wa hūpal-ziyatiya(n)=za hašan=za ā(p)pan šātta 'Ea has (or Ea, you have) granted h.h.'. To read *apan* 'that one' (anim. acc. sg.) as stands in the manuscript is exceedingly difficult, because there is no animate singular antecedent in the entire preceding Luvian paragraph. Since this manuscript shows a particularly large number of other errors (see Starke's discussion, *StBoT 30.49*), I believe the emendation to *a-(ap)-pa-an* is justified. The citation above is the last Luvian sentence

<sup>17)</sup> Otten, *StBoT 24.29*, tentatively translates *āpan tarna-* here as 'confiscate', comparing the use of *āpan tarna-* and *parā pāi-* to the Akkadian formula *našū nadānu* of the land-grant texts. However, 'confiscate' is entirely unsuitable for the passage in the Vow of Puduhepa (where *āpan tarna-* parallels, but contrasts with *pāi-*). Furthermore, there is simply no reasonable way to derive 'confiscate' from the combination of *āpan* 'behind' and *tarna-* 'let go, leave'. Far more apt is the other comparison cited by Otten: Akk. (*ina bīt* <sup>d</sup>X) *ištakan* 'placed (permanently) in the temple of <sup>d</sup>X' (see H. Wolf, *The Apology of Hattušiliš* (1967) 88 f.). Compare in fact in the Annals of Hattušili I the equation *n=aš ANA* <sup>d</sup>UTU <sup>URU</sup>TUL-na GAŠAN-YA EGIR-an *tarnahh[u]n* (*KBo X 2 III 20*) = *ina* <sup>d</sup>UTU <sup>URU</sup>TUL-[na] *ištakan=šumu* (*KBo X 1 Rs 13*) 'I granted them permanently to the Sun-goddess of Arinna, my lady'.

<sup>18)</sup> Since the *-aš* of the sentence quoted must be anim. acc. plural, it is likely that the *-aš* of the preceding sentence is also the direct object, not the subject, but this cannot be demonstrated from what is preserved of the context.

of the ritual (which ends immediately thereafter). A meaning 'has granted' or 'you have granted' thus seems appropriate: the goal of the ritual has been accomplished.

An additional argument for reading *ā(p)pan* as a preverb is the fact that the shape of *hūpalziyatiya(n)za* suggests that it is nt. nom.-acc. singular (with appended *-za*), modifying *hašan=za* (likewise then nt. nom.-acc. sg.). For a reading *hūpalziya(n)tiya(n)=za* (nt. nom.-acc. sg. of a derived adjective *\*hūpalziyanti-*) compare HLuv. VIR-ti-ya-ti-ya-za (CARCHÉMISH A 11 c, 4), i.e. *\*zitiyantiyan=za*, nt. nom.-acc. singular to *\*zitiyanti-* 'masculine' (see Hawkins, *AnSt 25.143*). If *hūpalziya(n)tiya(n)=za hašan=za* is the direct object as it appears to be, this leaves no place for an animate accusative singular *apan*.

The usage of CLuv. *appan(da) šā-* (iter. *šašša-*) thus confirms the meaning 'let go, release' for the simple verb, parallel to Hitt. *tarna-* or *lā(i)-*. Although they occur in broken contexts, CLuv. *ānta šā-* (*KUB XXXV 101 Vs 6*) and *pari šā-* (*KBo XXIV 35 III 11*) recall Hitt. *anda tarna-* and *parā tarna-*.

HLuvian shows a verb *\*69(-)sa-*. Its determinative (sign 69 represents some form of hand) and the pattern of its use support reading the complete stem as *sa-* and equating it with CLuv. *šā-* 'let go, release'. All sure examples of HLuv. *(\*)69)sa-* occur with the preverb *ARHA*. The contexts indicate a meaning 'abandon, leave behind'. This usage of *ARHA sa-* once again recalls that of Hitt. *arha tarna-*, as in *Hatt. I 76* (*StBoT 24.10-11*): <sup>URU</sup>Hattušan=ma *arha tarnaš* 'But he left/abandoned Hattusa'.

All clear examples of HLuv. *(\*)69)sa-* are found in the Assur letters. The most revealing for the meaning are those which occur together (ASSUR g, 4, properly 2): | *á-pi-ha-wa/i-* | ("LEPUS") *ta-pa-sà-la-ya* | ("\*286.\*317(-)wa/i-ara/i-ma-" | *ku-ru-pi* | *á-mi-i* | *à-ta-ti* | *ARHA-* | ("\*69") *sa-ha-na* | *à-pa-i-ya-pa-wa/i* | *DOMUS-ni-i* | *à-ta-ti* | *ARHA-* | ("\*69") *sa-ha-* | *wa/i-ra* + *à-i* | ("\*69") *ha-ra/i-za* | *wa/i-ma-ra* + *à* | *ARHA-* | *VIA-wa/i-ni* 'Furthermore(?) we left behind *tapasali warama* in the *kurupi* for(?) my *atati*. I left them (lit. those) behind in the house for the *atati*. Collect them and send them off to me'.<sup>19)</sup> Morpurgo-Davies, *KZ 94.98*, following Hawkins, *ibid. 115 f.*, suggests 'lack, miss' for *(\*)69)sa-*, but we would then properly expect a present tense: send me the supplies which I/we are lacking/

<sup>19)</sup> One could also interpret 'for the *kurupi* in my *atati*', but this does not affect the argument here.

missing. Given the supporting evidence of CLuv. *šā-*, I propose rather that the writer is telling the addressee to find and send to him some kind of supplies which the writer left behind. The following sentences deal with the eventuality that the addressee cannot find the supplies.

The meaning 'leave behind, abandon' for *ARHA* (\*69)*sa-* is supported by the next example (ASSUR f,2): | *wa/i-ri + i'* | *ku-ma-na* | *ha-tu-ra + āwa/i-za* | *ni-i'* | *ma-nu-ha ARHA-*' | (\*69)*sa-si-i'* 'Whenever you are to write, do not by any means abandon us/leave us in the lurch'. Here as often in the Assur letters the writer is reprimanding the addressee for a failure to write promptly.

The context of the remaining example of our verb is also compatible with the meaning 'abandon' (ASSUR f,2): *u-nu-ha-wa/i-ma-za-ta* | *ní-i* | *ma-nu-ha* | *ARHA-*' | ("VAS")*pa + ra/i-ra + ā-ya* | DOMINUS-*ni-i*(*a*) | *ā-za-ya-ha* | *sa-na-wa/i-ya wa/i-za-i* *ni-i* | *ARHA* | (\*69)*sa-tu-i'* 'Now too may the lord's and our goods by no means be missing for/disappear on you. May they not abandon us'.<sup>20</sup> The addressee is being admonished not to lose track of the goods left in his care. The use of *ARHA sa-* with an inanimate subject is somewhat surprising, but not unduly disturbing.

We have thus been able to isolate a Luvian verb stem *šā-/sa-* 'let go, release', attested in its basic meaning and in various derived uses with preverbs. The PIE etymon for such a stem is evident: \**seh<sub>1</sub>(i)-* 'let go, release from the hand', with several secondary uses, especially 'throw, hurl' (Pokorny, *IEW* 889 ff.). The question then arises as to the precise morphology of attested Luvian *šā-/sa-*. The available forms give the following picture:

<sup>20</sup> My emendation of DOMINUS-*ni-i* to DOMINUS-*ni-ia* is based on my overall interpretation of the passage, for which compare Hawkins, *KZ* 94.115. I take DOMINUS-*niya* as nt. nom.-acc. plural modifying *sanawaya* 'goods', parallel to *a(n)zaya* 'our'. Hawkins suggests 'inquire after' for *ARHA* (VAS)*pa + ra/i-ra + ā-ya*, but this seems unlikely given the determinative VAS 'body' instead of LOQUI 'speak'. I propose that this is the genuine Luvian word for 'be missing; miss, lack'. The varying syntax (here 'may it not be lacking for you', but elsewhere 'may I not miss you') would not be unexpected for a verb of this meaning: cf. the history of English 'need'. Since the stem *pa + ra/i-ra + ā-* may be read as /*par(r)a-*/ (with pres. 3rd sg. /*parai*/), I find it possible that HLuvian *ARHA par(r)a-* is in origin literally 'dis-appear', with the *hi*-verb stem *para-* matching exactly Hitt. *parāi-* 'appear' (see Oettinger, *Stammbildung* 472, for this stem and derivation from *parā* 'forth').

P2Sg (*69) <i>sasi</i>	Pret1Pl (*69) <i>sahan(a)</i>
P3Sg <i>šāi</i> <sup>21</sup>	Imv3Sg (*69) <i>satu</i> <sup>22</sup>
Pret1Sg (*69) <i>saha</i>	Imv3Pl <i>šāndū</i>
Pret3Sg <i>šātta</i>	ItImv2Sg <i>šāšša</i>

This paradigm most closely resembles that of CLuv./HLuv. *ta-* 'step; stand':<sup>23</sup>)

PlSg (PES <sub>2</sub> ) <i>tawi</i>	Pret3Sg <i>tatta/dātta</i>
P3Sg (PES <sub>2</sub> ) <i>tai</i>	Pret3Pl (PES.PES) <i>ta(n)ta</i>
P3Pl (PES <sub>2</sub> .PES <sub>2</sub> ) <i>ta(n)ti</i>	Imv2PlM <i>dādduwar</i>

This parallelism is supported by that between Hitt. *šīye-* 'throw, shoot' < \**sh<sub>1</sub>-ye-* and *tiye-* 'step; station oneself' < \**sth<sub>1</sub>-ye-*.

In Melchert, *Phon.* 99–100, I argued that attested Hitt. *tiye-* was secondary, generalized from the third plural of a *hi*-verb in final *-i-*: \*(*s*)*téh<sub>2</sub>y-ei*, \*(*s*)*th<sub>2</sub>y-énti*. As evidence for this process I cited Hitt. *šāi*, *šīyanzi* 'seal; throw' beside *šīye-* 'throw'. Unfortunately for this analysis, all unambiguous *hi*-form of *šī-* in Hittite mean 'press, down, seal', not 'shoot, hurl' (false also Oettinger, *Stammbildung* 473).

Thus there is no evidence for the remodeling I proposed, and on the basis of current data Hitt. *šīye-* and *tiye-* must be taken as *mi*-verbs in *-ye-*. Nor can Luvian *sa-* 'let go' and *ta-* 'stand; step' easily be derived from *hi*-verbs in final *-i-*. Based on the behavior of 'give' (HLuv. P3Sg *pi-ya-i* and Lyc. P3Sg *pije* vs. Hitt. *pāi*), we would expect \**siyai*, \**tiyai* in Luvian, not attested *sai*, *tai*.<sup>24</sup>)

<sup>21</sup>) The third-person imperative in the immediately following sentence argues for *šāi* as third singular indicative, not second singular imperative (*KUB XXXV* 28 I 8f.; *StBoT* 30.96).

<sup>22</sup>) Since the subject is a collective plural, I read the form *sa-tu-i* as /*satu*/, third person singular.

<sup>23</sup>) For the identification of HLuv. and CLuv. *ta-* 'step; stand' see Morpurgo-Davies, *Studies ... Cowgill* 212 ff. She does not include forms of *ta-* with PlS<sub>2</sub> or PES with *ta-* 'stand', presumably because the latter is usually marked with CRUS. However, the use of PES<sub>2</sub> *ta-* is entirely parallel to that of CRUS *ta-*: (PES<sub>2</sub>.PES<sub>2</sub>)*tā-ti-i* (plus CUM-*ni*) in ALEPPO 2,2 clearly means 'stand with/by', and ("PES.PES")*tā-ta* (plus *la-u-na*) in BOHÇA 4 shows the construction of 'stand' plus infinitive in the meaning 'begin to, undertake to'. I therefore include these examples of *ta-* with 'stand'.

I should point out that Morpurgo-Davies' analysis of the prehistory of the verb differs from that presented here.

<sup>24</sup>) As J. Jasanoff reminds me, *pe-/pi-* 'give' is not actually a *hi*-verb with secondary *-i-*: see section 2.2 below. There are in fact no assured examples else-



The contrast between Hitt. *šīye-*, *tiye-* and Luv. *sa-*, *ta-* recalls rather that between Vedic present (*ava-/vi-*)*syati* 'releases' beside aorist *-sāt*, which may continue *\*sh<sub>1</sub>-ye-* and *\*seh<sub>1</sub>-*: see Pokorny, *IEW* 890.<sup>25</sup>) Phonologically, Luvian *sā-* can reflect directly an active root aorist with strong stem *\*seh<sub>1</sub>-*, weak *\*sh<sub>1</sub>-*: for PIE *eh<sub>1</sub>* to Luvian *ā* see my discussion of Luvian *a(ya)-* in *Phon.* 159 ff. and that below on Lyc. *ha-*. The development of a root aorist stem *\*(s)teh<sub>2</sub>-* would have been more complicated. The final *\*-h<sub>2</sub>* of the stem would have been lost before endings beginning with *\*t*, producing an allomorph *tā-* (see Oettinger, *Stammbildung* 547, for the loss of *\*h<sub>2</sub>* before stop). The weak stem *\*(s)th<sub>2</sub>-* would also have led to *t(a)-*. Thus those instances where *\*(s)teh<sub>2</sub>-* would be expected to remain as *\*tahh-* could easily have been eliminated by paradigm leveling.

Derivation of at least some athematic *hi*-verbs from old root aorists is not a new idea: see Risch, *Flexion und Wortbildung* 253, and compare Eichner, *ibid.* 93 f. (Hitt. *dā-* 'take' from a middle root aorist). It remains in my view an open question whether the *hi*-conjugation of these verbs can be properly motivated if we start from old root aorists. I merely wish to point out here the relevance of Luvian *sā-* to this question. See also below on Lyc. *ha-*.

The expected Lycian equivalent of Luvian *sā-* would indeed be *ha-*. Not only is such a stem attested, but it also has the requisite meaning 'let go, release'. The clearest example is furnished by the Trilingual (N 320, 20–22): *se=sīmmati xddazas epi=de arawa hāti =kīmētis me=i=pibiti sixlas* (= καὶ ὅσοι ἄν ἀπλεύθεροι γένωνται ἀποτίειν τῷ θεῷ δύο δραχμάς). This passage has been the subject of much commentary. In addition to Laroche, *FdX* 6.69 f., see also Eichner, *Or* 52 (1983) 54 ff., and the efforts of a series of scholars in *Incling* 4/1 and 4/2. Since a transitive verb *ha-* is attested elsewhere in Lycian and the accompanying *kīmētis* is accusative plural,

where in Anatolian of the Hittite type in *\*-eh<sub>1</sub>i-*. Oettinger, *Stammbildung* 481, cites Luvian *huya-* beside Hitt. *hūwāi-* 'run', but none of the attested Luvian forms point unambiguously to *hi*-conjugation, and Oettinger himself suggests, *ibid.* 480, that there was a competing middle (in his terms 'stative') stem. The latter could easily be the source of the Hittite-Luvian stem *huya-*. Therefore we should perhaps not expect *hi*-verbs in *-i-* in Luvian and Lycian at all.

<sup>25</sup>) Even if all the Sanskrit forms are to be interpreted as 'un-bind' with Mayrhofer, *KEWA* 550, and derived from *\*sh<sub>2</sub>ye-* and *\*seh<sub>2</sub>-* to *\*seh<sub>2</sub>i-* 'bind', the structural parallel remains noteworthy.

we must follow Eichner and others in assuming that verb here as well.<sup>26</sup>)

The presence of Luv. *sā-* 'let go, release' makes the solution obvious: Lyc. *ha-* is its direct cognate and has the same sense, which fits the passage perfectly: 'And they shall oblige(?) the slaves, as many as they set free, to give (two) shekels'. The precise force of the Lycian preverb *epi* is not yet clear, and *arawa* could be locative singular of a noun 'freedom' (Eichner et al.) or less likely neuter plural of the adjective 'free' as an adverb (Laroche), but the meaning 'let go, release' for *ha-* is clear enough.

This meaning also fits other combinations of *ha-* plus preverb. At the beginning of the Trilingual (N 320, 2–4) we find *sē=ñne ñte=pddē =hadē Trīmīle pddēne=hīmīs Ijeru se=Natrbbijemi* (= κατέστησε ἄρχοντας Λυκίας Ἰέρωνα καὶ Ἀπολλόδοτον 'And he deputized as deputies among the Lycians Iyero(n) and Natrbbiyemi'. Laroche, *FdX* 6.61, already correctly compared the figura etymologica *pddē =hadē ... pddēne=hīmīs* with Hitt. *pedasšahh-* 'put in place, install', but his attempt to make a direct equation of the Lycian and Hittite faces insurmountable phonological difficulties, as he himself recognizes.

Lyc. *pddē=ha-* is not a derived stem, but rather a univerbation of *pddē* 'place', reduced to an adverb, and *ha-* 'let go, leave': *ñte=pddē=ha-* is 'leave (behind) in place' thus 'install as deputy'. The combination *pddēne=hīmīs* contains the participle of *ha-* (with syncope from *\*hāmi-*): 'left (behind) in place', hence 'deputy, representative'. The fact that *pddē=ha-* contains our verb *ha-* is confirmed by the lenition of the ending in *hadē*, on which see below.<sup>27</sup>)

<sup>26</sup>) Laroche's interpretation of *hāti* as 'they are', *FdX* 6.69 f., faces an additional obstacle besides the accusative *kīmētis*. The word *ahūtāi* 'property, possessions' (N 320, 17) is surely to be taken with Laroche himself, *ibid.* 68, as the lexicalized participle of 'be', calqued on Greek τὰ ὄντα, ἡ οὐσία. The form *ahūtāi* shows that Lycian shares with Hittite a weak stem *\*as-* in this verb: 'they are' would thus be *\*ahūtāi* or perhaps *\*ahēti*, not *hāti*.

<sup>27</sup>) Lycian denominative verbs in *-a-* from *\*-eh<sub>2</sub>-* never show lenition: cf. *prīnawatē* 'built' < *prīnawa-*. The lenition in *pddē=hadē* thus excludes Laroche's attempted equation with Hitt. *pedasšahh-*, as does the presence of the nasal in both *pddē=ha-* and *pddēne=hīmīs*. The form *pddēne-* in the latter is admittedly unexpected even in a univerbation. However, there is other evidence that 'place' had become a synchronic *n*-stem in Lycian (something which happens to old neuter *o*-stems in Hittite as well). In *TL* 106, 1 we find the gen. sg. *pddēneh* and in *TL* 44a, 45 *pddēne=ke Xbāniye* is surely dat.-loc. plural 'and in the Kyanian locales'. The *pddēne-* of *pddēne=hīmīs* either contains a connective vowel *-e-* in a

The other clear case of *ha-* is in N 309 c, 7–9: *m=ene ni n̄tepi=hadu lataze*. As already seen by Neumann, *Neufunde* 25, the combination *n̄tepi hadu* must be similar in meaning to the frequent *n̄tepi ta-* 'put in' (the tomb). Neumann finds *lataze* obscure, but given the context it is likely to be dative plural of *\*lataza-* 'the dead', another example of *-aza-* marking membership in a class (cf. *xddaza-* 'slave' above). The word would be derived from *la-* 'die' via *\*lata-* 'death' (cf. *pijata-* 'gift' < *pije-*). This sentence, aimed at a potential violator of the tomb, means: 'May one not let him in to the dead'. While this could be taken as a simple prohibition used instead of *nipe n̄tepi tātu* (TL 88, 3), it could also be interpreted as a terrible curse for one who does violate the tomb. The violator is not to be allowed to join the (righteous) dead; i.e., he is not to be permitted a proper burial of his own.

The verb *ha-* also occurs in the last lines of the Trilingual (N 320, 40–41): *Pigesereje me=i(j)=eseri=hhati* (= Πιζόραρος χότος ἔστω). Since *Pigesereje* is dative, the Lycian syntax obviously differs considerably from the rather lapidary Greek. The precise meaning of the preverb *eseri* is not yet clear, but the Greek translation 'Let P. be in charge' is consistent with an interpretation 'And they shall leave (it) to (the discretion of) P.' for the Lycian.

Other instances of Lyc. *ha-* speak neither for nor against a meaning 'let go, release, leave': *epi hadi* (TL 84, 6), *hāti* (TL 83, 12), *hātē* (TL 44 c, 4), *hatu* (TL 29, 4), *hātā* (TL 84, 3). Based on its inflection (3rd sg. *alahadi*, 3rd pl. *alahāti/alahati*), the stem *alaha-* must also contain our stem *ha-* 'let go, release': see the discussion by Bryce, *AnSt* 26 (1976) 178 ff., with references. Beyond identifying the meaning of the second element, I can contribute nothing to the solution of this very problematic verb.

The attested shape of Lyc. *ha-* supports an equation with Luvian *sā-* and the proposed derivation from *\*seh<sub>1</sub>-*. The present 3rd singular *hadi* is the regular direct reflex of an athematic *\*séh<sub>1</sub>ti* 'lets go'. It shows the regular 'lenition' of the *\*-t-* of the ending after accented long vowel which resulted from loss of tautosyllabic *\*h<sub>1</sub>* with compensatory lengthening. Lyc. *hadi* is thus entirely parallel to *adi* 'makes, does' < *\*yeh<sub>1</sub>ti* (= Hitt. *iēzzi*) and *tadi* 'puts, places' < *\*dheh<sub>1</sub>ti* (formally equals Hitt. *tēzzi* 'says'). For the former see my

nominal compound or (less likely) represents a sort of fake plural conditioned by the plural *-h̄m̄mis*.

analysis, *Phon.* 159 ff., and for the latter Eichner, *MSS* 31 (1973) 80, to whom we also owe the discovery of the lenition rule.

Morpurgo-Davies, *Studies ... Cowgill* 226, denies that Lyc. *tadi* continues directly *\*dheh<sub>1</sub>ti*. She does so because she believes that *\*eh<sub>1</sub>* gives *ī* in the Luvian languages. She explains the attested *a*-vocalism of *tadi*, etc. as coming from the weak stem of the plural; *\*dant(a)* < *\*dhh<sub>1</sub>ent*. This account of the *a*-vocalism in these forms is unnecessary and for Lycian impossible. It is unnecessary because all good examples of *\*eh<sub>1</sub>* in the Luvian languages show *ā* as the result.<sup>28)</sup>

The *a*-vocalism in Lycian *adi*, *hadi*, and *tadi* cannot be derived from the plural, because the plural would not have had *a*-vocalism. As I have recently shown (see the article cited in note 5), sequences of *\*e* plus tautosyllabic nasal result consistently in Lycian *ē*. Thus a third plural *\*dhh<sub>1</sub>ent(i)* could only appear as *\*tē(i)*. In fact, it is the attested *a*-vocalism of the third plurals *tāti* and *hāti* which must be explained as secondary from the singular! Lycian thus demands *\*eh<sub>1</sub>* > *a*, and all the Luvian evidence is consistent with such a result.

One may note that Lyc. *hadi* shows *mi*-inflection versus CLuv. *šāi*. Likewise Lyc. *sttati* 'stands' beside HLuv. *tai*.<sup>29)</sup> Evidence for *hi*-conjugation in Lycian is sparse: only *pije* 'he will give' (TL 9, 2) is reasonably certain. It is thus unclear whether Lyc. *hadi* and *sttati* are innovations or archaisms versus the Luvian *hi*-forms *šāi* and *tai*.

<sup>28)</sup> Morpurgo-Davies and Hawkins, *Hethitica* 8. 274 f., argue that the equation of HLuv. *tamih<sub>1</sub>(t)-* and Hitt. *tam(m)eta(r)* 'abundance' points to *\*dmeh<sub>1</sub>-* > HLuv. *t(a)mi-*. The root equation is undeniable, but the alleged morphological equation is highly dubious. First, in the companion word for 'mobile wealth' Hittite has deverbative *(i)y-atar* vs. CLuv. denominative *iun-ah<sub>1</sub>(t)-*. Second, Hitt. *-atar* may be divided as *-ā-tar* (i.e. *\*eh<sub>2</sub>-tr*), but Luv. *-ah<sub>1</sub>t-* must be analyzed as *\*ah<sub>1</sub>-it-* (i.e. *\*eh<sub>2</sub>-id-*). There simply is no Luvian suffix *\*-hit-*! Third, all clear cases of Luvian *-ah<sub>1</sub>t-* are denominative, and even the unclear cases may be assumed to be such on phonotactic grounds. The chances that *tamih<sub>1</sub>t-* is derived from a verb stem are thus vanishingly small.

Furthermore, Morpurgo-Davies herself has discovered a clinching example for *\*eh<sub>1</sub>* > Luv. *ā*. In *Studies ... Cowgill* 218–219<sup>31)</sup> she demonstrates that we must separate a CLuv. noun *ari-* 'time' from *arraya-* 'long'. Elsewhere (apud Hawkins, 'More Late Hittite Funerary Monuments', to appear) she has also suggested the correct comparanda: Grk. *ώρα* 'period of time', Goth. *jēr* 'year', etc. < *\*ye/oh<sub>1</sub>rV-*. The crucial point is that we must reconstruct specifically *e*-grade *\*yeh<sub>1</sub>r(i)-* for Luvian, because Luvo-Hittite regularly loses initial *\*y* before *\*e*, but not *\*o*; see my discussion, *Phon.* 14 ff., with references.

<sup>29)</sup> Whether Lyc. *stta-* 'stand, be placed' is inherited or borrowed from Greek remains indeterminate.

2.1 HLuvian (\*344)*iyasa-* and Lyc. *ije-* 'buy'

Hawkins and Morpurgo-Davies, *Fs Neumann* (1982) 91 ff., have demonstrated that HLuvian (\*344)*iyasa-* means 'buy'. They also show that HLuvian *piya-* 'give', reinforced by the preverb *ARI*A, is used for 'sell'.

They analyze *iyasa-* 'buy' as an iterative in *-sa-*, which is undoubtedly correct. The lack of a corresponding base verb could be due to chance, but is more likely to reflect lexicalization of the iterative stem *iyasa-* as the basic word for 'buy': cf. Hitt. *tuške-* 'rejoice' and similar examples (Oettinger, *Stammbildung* 326). Hawkins and Morpurgo-Davies further propose that *iyasa-* is a reduplicated iterative to the root 'make, do' (Hitt. *iya-*, Luv. *a(ya)-*, Lyc. *a(i)-*).

This derivation is both semantically and formally possible, but it faces a number of uncertainties, as the authors themselves recognize. The formal development is particularly problematic. As I have argued at length, *Phon.* 14 ff. and 159 f., the Anatolian forms for 'make, do' continue a root *\*yeh<sub>1</sub>-*, not *\*(h<sub>1</sub>)ei-*. Furthermore, we have the attested reduplicated iterative of this root: OHitt. *išš(a)-* < *\*yi-ih<sub>1</sub>-s-*, just like Hitt. *šišša-* 'press, seal' < *\*si-sh<sub>1</sub>-s-* and CLuv. *pipišša-* 'give' < *\*pi-pi-s-* (J. Jasanoff, forthcoming).<sup>30</sup> A preform *\*yi-ih<sub>1</sub>-s-* could only give Luv. *\*is(s)a-* like Hitt. *išš(a)-*.

A more direct solution deriving iterative *iyasa-* from a base verb *\*iya-* 'buy' would clearly be preferable. While this stem is missing in Luvian, it is attested as Lycian *ije-* in *TL* 48:

(48 a) *ebēññē xupā m=ē=ti=prīnawātē Padrāma hrppi nere se=tuhe*

(48 b) *ebēññē xupā m=ē=ti ijetē Q[a]rīnaxa Pssureh tideimi se=tideimi Padrīmmahe Xudiwazade epenētijatte Padrīmma.*

Laroche, *FdX* 5.132, refers to this text as 'enigmatic', but in fact he has already shown the way to a solution. First, the content of the first portion is quite clear except for the precise sense of *neri-*: 'Padrama built this tomb for (his) *neri* and (his) nephews'.<sup>31</sup> Second,

<sup>30</sup>) Whatever the correct explanation for it may be, Hitt. *ēšša-* with *e*-vocalism is a Neo-Hittite innovation and has nothing to do with the prehistory of the verb.

<sup>31</sup>) Laroché, *FdeX* 5.133, suggests that *neri-* is merely a dissimilated variation of *nēni-* 'brother'. Carruba, *Sprache* 24.169, equates *neri-* with Luvian *nanasri-* 'sister' via *\*nenehri-* with syncope of the first *e* and loss of the *h* before *r*. Either analysis would be consistent with the word's occurrence with *tuhes-* 'nephew'.

following an observation of Kalinka, Laroché notes that the second portion of the inscription is separate and later than the first. He correctly infers that the tomb, which was constructed by Padrama, was later acquired by someone else. This much is given by the internal structure of the text. We may then ask: acquired by what means?

We know that the Lycian tombs were typically built in advance. This raises the possibility that they could be bought and sold (like cemetery lots in the contemporary United States). This possibility is confirmed by the Greek of *TL* 56,6: *ἐὰν δέ τις ἀδικήσῃ ἢ ἀγοράσῃ τὸ μνημα* 'If someone harms or buys this tomb ...'. See also Lyc. *epirijeti* 'sells' in *TL* 111,6, as first suggested by Laroché, *BSI* 53.171 f., and now supported by Kimball, *Fs Hoenigswald* 185 ff.

Internal Lycian evidence thus suggests a meaning 'bought' for *ijetē* in *TL* 48b: 'Qarīnaxa, son of Pssura, bought this tomb'. Not only does Lyc. *ije-* 'buy' match perfectly HLuv. *\*iya-* 'buy' in *iyasa-*, but the fact that we are dealing with a transaction is also confirmed by the remainder of the inscription. If the tomb was bought, someone had to authorize the sale. The reference to *tideimi Padrīmmahe* 'son of P.' suggests that the sale was made by Padrama's son, probably because Padrama himself was no longer present (perhaps no longer alive) to do so himself. The structure of the last sentence is thus 'The son of Padrama, Xudiwazade, (nom. sg.) \_\_\_ed for Padrama (dat. sg.)'.<sup>32</sup>

We are left with the verb complex *epenētijatte* (pret. 3rd sg.), which must mean either 'authorized the sale' or 'represented'. The morphological analysis points to the former.<sup>33</sup> The vocalism and non-lenition of the ending argue that the stem *epenētija-* is a denominative in *-a-*, i.e. the equivalent of a Hittite stem in *-ahh-* < *\*-eh<sub>2</sub>-*: cf. examples such as *prīnawa-* 'build' < *prīnawa-* '(grave-)house'. The remaining stem *epenēti-* may be compared formally to Hitt. *hap-*

<sup>32</sup>) The dative singular of names in *-a-* is usually *-aje*, but *-a* is also attested: cf. *Hm̄prāma* in *TL* 37,5-6.

<sup>33</sup>) The general appearance of *epenētija-* recalls Hitt. *āppan tiya-*, which means literally 'stand behind' but is used idiomatically for 'be on someone's side, care for', a sense not far from what is needed for the Lycian. This equation is impossible, however. The *-ē-* between *epen* and *tija-* would be unexplained. Furthermore, Lyc. *tija-* cannot be equated with Hitt. *tiya-*, because the Lycian stem would have to be *\*tije-*: cf. *pije-* in note 38 below and see my article cited in note 5.

*pinant-* 'rich'. The latter is to be analyzed with Oettinger, *MSS* 40.147 ff., as a denominative stem in *-ant-* to *\*happen-*, the oblique stem of an original heteroclit paradigm. The nom.-acc. *\*h<sub>3</sub>pér* of this paradigm is the base of Lyc. *epirije-* 'sell'.<sup>34)</sup>

Hitt. *happinant-* is attested as 'rich', but its original sense would have been 'provided with/possessing sales', hence 'sales agent, merchant'. Lyc. *epenētiya-* (in Hittite terms *\*happinantiyahh-*) could therefore easily mean 'act as sales agent, merchandize'.<sup>35)</sup> The last sentence of *TL* 48b would thus read: 'And the son of Padrama, Xudiwazade, acted as sales agent for Padrama'. The collocation of *ije-* and *epenētiya-* in one text, taken together with the evidence of HLuv. *iyasa-* 'buy' and Lyc. *epirije-* 'sell', leaves little doubt that Lyc. *ije-* means 'buy'.<sup>36)</sup>

The source of Lyc. *ije-* = HLuv. *\*iya-* 'buy' had already been divined by Pedersen, *LH* 25: *ije-* is the uncompounded form of *pije-* 'give'. Pace Laroche, *FdeX* 5, 133, there is widespread agreement that Anat. *pē-/pi-* represents an old univerbation of the preverb *pe-* 'hin-' and PIE *\*ai-*: see my discussion, *Phon.* 32 (with note 65) and 162, and (with different details) Oettinger, *Stammbildung* 470. Lyc. *ije-* and HLuv. *iyasa-* 'buy' now confirm that *pē-/pi-* is a univerbation and help us understand the Anatolian developments.

PIE *\*ai-* appears in Toch AB *e-/ai-* as 'give' and in Greek *αἴνυμαι* as 'take'. As demonstrated by Benveniste in his justly famous article "Don et échange dans le vocabulaire indo-européen" (*Problèmes de linguistique générale* 315 ff.), giving and taking were viewed as parts

<sup>34)</sup> My reconstruction of the paradigm differs in some respects from that of Oettinger. I assume *\*h<sub>3</sub>*, rather than *\*h<sub>2</sub>* following Kimball, *Fs Hoenigswald* 185 ff. I also agree with Kimball (p. 188) that *\*h<sub>3</sub>pér* was likely the collective plural to a singular *\*h<sub>3</sub>ép̄r* or *\*h<sub>3</sub>óp̄r* (> Hitt. *hāppar*).

<sup>35)</sup> Other examples of *ant-* stems in Lycian appear as secondary *a-* stems. Compare *ahnītāi* 'possessions' < *\*h<sub>1</sub>snt-* (note 26 with refs.). The word *lātāi/lātāi* (gen. pl.) which modifies *māhāi* 'gods' in N 306, 4 and N 309 c, 4 is surely 'of the dead': *lātā-* = CLuv. *u(wa)lant(i)-* 'dead'. Rather than compare directly *epenēti-* with Hitt. *happinant-*, we should assume a derived adjective in *-ije-*: *\*epenētiye-* 'pertaining to a merchant' which would in turn be the base of the denominative verb *epenētiye-*. Compare in fact Hitt. *happariya-* 'hand over' < *happariya-* 'pertaining to a sale' and Lyc. *epirije-* 'sell' from the stem of Hitt. *happiriya-* 'city' < *\*market* < 'pertaining to sales'.

<sup>36)</sup> It is very likely that we have another purchase of a tomb with *ije-* 'buy' in *TL* 78, 2 and 4, but unfortunately the reading of both occurrences is less than assured.

of a single act of exchange in PIE. In the various daughter languages either 'give' or 'take' is generalized.<sup>37)</sup>

We may now account for the Anatolian facts by assuming that the root *\*ai* was specialized in Anatolian in the sense 'take', as in Greek. To express the "opposite" act (as it was now seen in agreement with our modern view), the stem *\*ai-* was compounded with the preverb *pe-* which indicated motion away from the speaker, whence Anat. *pē-/pi-* 'give'.<sup>38)</sup> Another PIE root for 'give/take', *\*deh<sub>3</sub>-*, took over the general notion of 'take' in Anatolian: Hitt. *dā-*, HLuv. *ta-* (perhaps also HLuv. *la-* and CLuv. *lā-* with secondary *d* > *l*).<sup>39)</sup> Uncompounded *\*ai-* 'take' survived only in the specialized meaning 'take in exchange for payment' > 'buy', probably replacing inherited *\*wes-* in the Luvian languages.<sup>40)</sup> Not coincidentally, Anat. *pē-/pi-* 'give' came to be used for 'sell' in HLuvian, reinforced by *ARHA* 'away' or by specific references to payment. Thus in Anatolian as elsewhere the notion of commerce replaced the PIE system of reciprocal exchange of goods and services, and this societal change is reflected in the language.

Curriculum in Linguistics  
University of North Carolina  
Chapel Hill, NC 27599  
USA

H. Craig Melchert

<sup>37)</sup> The specialization to 'give' or 'take' depends on particular (unrecoverable) conditions in the history of each language. This applies to all PIE verbs of this type: *\*deh<sub>3</sub>-*, *\*bher-*, *\*ghabh-* (cited by Benveniste), as well as *\*ai-*. I therefore cannot follow Eichner, *Flexion und Wortbildung* 93 f., in ascribing the sense 'take' of Anatolian *dā-* to an entirely hypothetical preverb *\*e/oh<sub>1</sub>* plus middle inflection.

<sup>38)</sup> The original ablaut *\*-pe-ai-*, *\*pe-i-* is reflected only in Hittite (and there only indirectly) as 3rd sg. *pāi*, 3rd pl. *pianzi*: see my discussion, *Phon.* 32 and 162. In the other Anatolian languages the weak stem *piya-* (Lyc. *pije-*) was generalized from the third plural.

<sup>39)</sup> For secondary *d* > *l* in Luvian compare CLuv. *lawarr(i)-* 'break' = Hitt. *duwarni-* < *\*dhwerneye-*.

<sup>40)</sup> For the possibility that HLuv. *(\*)419/420washa-* is a derivative of *\*wes-* 'buy' see Hawkins and Morpurgo-Davies, *Fs Neumann* 99 f. with note 9. As they indicate, the possible relationship of the HLuvian word to CLuv. *waḥaya-* is undetermined.