

The Linguist's Linguist

Covert Possessive Compounds in Hittite and Luvian*

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One famous feature of Hittite and its Anatolian relatives is that they appear to show productive compounding only in names (persons and places). Compounds in appellatives are surprisingly rare by the standards of ancient Indo-European languages. However, it is common in language change for compounds over time to become opaque and no longer synchronically analyzable. First or second members of compounds may lose their full lexical value and be reanalyzed as derivational affixes — becoming productive and capable of being added to bases which would have been semantically unsuitable in the original compounds.¹ I hope to show that Hittite and Luvian have such indirect traces of compounding.

Hittite has a small set of stems in *-zi/ena-*: *alivanza-* (an animal, clearly derived from *alivan-* ‘deer’), *alwanzina-* ‘sorcerous, casting spells’, *arqzina-* ‘external, foreign’, *bu(wa)lpanzina-* ‘hump, embossment, protuberance’,² The adjective *arqzina-* is derived from *arqz(a)* ‘outside’, whose original form was **erhzi-*, permitting an analysis of the adjective as **erhzi-no-*, with the well-known PIE secondary suffix **-no-*.³ The derivatives *alwanzinar* ‘witchcraft’ and *alwanzalhy-* ‘bewitch’ suggest that *alwanzina-* may likewise reflect **alwanī-no-*.⁴

Simple **-no-* will not work for *alivanzina-* and *huvvalpanzina-*. The transparent source of the first is the *n*-stem *alivan-*, and as established by Pulvel (1991: 424f.) that of *huvvalpanzina-* is surely *huvvalpan-* ‘humpbacked’). We could derive the latter with a suffix **-ñno-*, but I know of no other evidence for this ‘enlarged’ form of **-no-* in Anatolian, and this will not explain *alivanzina-*. What is needed to cover both cases phonologically is an affix **-sino-*, which would have produced *-nis-* when added to a stem in *-n-* or *-ñ-*.⁵

* I am grateful to colleagues Ivo Hajnal, Norbert Oettinger, Karl Praust, and Elisabeth Rieken for very helpful advice. I alone, of course, am responsible for the views expressed here.

¹ I cite the famous case of German *-lich* and English *-ly*, a formation that began in bahuvrhis with *lich=lic* ‘body’ as second member, thus ‘having the form/shape of’. It eventually became a productive derivational suffix with the much broader sense ‘having the nature/quality of’, as in German *düßerlich* ‘external’ < *aüßer* ‘outside’ or English *overly* < ‘over’ (see Kluge, 1899:111).

² Several of these stems are typically given as ending in *-zena-*, but there are no attestations in Old Hittite manuscripts, and the examples from Middle Hittite manuscripts show a mixture of *-i-* and *-e-* spellings: *alwanzinnis* and *alwanzinnes* (KBo 15.10 i 30 & 33) and *arqzitan* (BoT 1.36 iii 35) versus *arqzanzaš* (KBo 8.35 i 26). The only one of these words that occurs in assured Neo-Hittite compositions, *arqzanz-*, has consistent *e*-vocalism there. This alternation of *i* and *e* recalls that in *išša-* > *ešša-* ‘do, make’ and the other examples cited in Melchert (1984: 153ff.). Rieken (1996: 294ff.) supports the claim of a sound change from *i* to *e*, but argues for a quite different conditioning from what I had assumed and cites examples to show that the change begins already in Old Hittite. Her account also faces some counterexamples, as she concedes, and the precise conditioning remains elusive. I note here only that her conditioning (lowering of *i* to *e* between dentals) also fits *-zina-* > *-zena-*.

³ As colleagues David Hawkins and Massimo Poetto have reminded me, this derivation of Hittite *arqzina-* is supported by the apparent exact cognate Luvian FINES+HI-/I-*na* /arithna/ ‘externally’, abroad’ in CARCHEMISH A6,2 (probably nom.-acc. pl. neuter functioning as an adverb).

⁴ The only assured source of *-z-* ([ts]) in Hittite is assimilated **i* before **i* or **y*. I will soon discuss the source of the base **alwanī-* elsewhere.

⁵ For secondary **-n+s-* leading to *-nis-* in Hittite see Melchert (1994:121) with references.

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A prehistoric suffix **-sino-*, however, is highly unlikely. It cannot represent **-seno-*, since posttonic short **e* in open syllable leads to Hittite *-a-*, not *-i-* (see Melchert, 1994:137ff., following Cowgill, contra Melchert, 1984:104ff.). There is in any case no basis for assuming that Anatolian ever had a suffix **-seno-*.⁶ I therefore suggest that *alivanzina-* and *juwalpanzina-* reflect possessive compounds with the noun *šina-* 'figure, figurine' as second member. This noun, attested consistently with *i*-vocalism in OH manuscripts, is later spelled *šēna-*, presumably by the same change discussed above.

Specifically, I propose that *alivanzina-* means 'having the form/shape of a deer, deer-like'. That the word is distinct from *alivan-* itself is shown by their cooccurrence in KUB 30.36 ff 11-12, a passage whose precise meaning remains obscure. That *alivanzina-* also refers to a cervid is confirmed by *alivanzinaš karkidandaš* 'horned a.s.' (i 6-7).⁷ The precise species designated by *alivanzina-* eludes us. Likewise, *juwalpanzina-* would have originally meant 'having the shape/form of a humpback' (*juwalpanzi-*), later substantivized to 'hump, embossment, protuberance'. Beside *ju(wal)panzi-ena-* we also find *juwalpanzana-* (see Puhvel 1991:424f.). Since the accent in all these examples was surely towards the beginning of the word (hence consistently short *-i-* vs. simple *šina-*), I find it likely that *juwalpanzana-* reflects a variant with syncope of the *-i-*, with or without a new anapyctic *-a-*.

One problem with my analysis is that it seems unlikely that such compounds would just happen to have been made only in cases where the first member ended in *-ri-* or *-ri-*. One would expect to find at least a few examples showing directly *-sina-* as second member. In support of my proposal I can offer one tolerably certain example and another that seems very probable.

Hittite *(š)kalmišina-/kalmišana-* means 'fire-brand, burning log', also probably 'comet'. This word obviously is derived from *kalmi-*, attested twice, with a meaning impossible to distinguish from that of its derivative. Puhvel (1997:27), to whom I refer the reader for a summary of all the evidence, lamely analyzes *kalmišina-* as a 'thematized "animation"' of a neuter heteroclitte stem **kalmēšar* (following already Kammhuber). This derivation is quite impossible on both phonological and morphological grounds. First of all, the word is spelled overwhelmingly with single *-š-*, versus the invariant geminate of *-ēšsar/-ēššāna-*. Second, there is no such process as 'animating' derivatives in *-a-* of *-ēšsar/-ēššar-*. The alleged example of *ḫatkiš(nu)-* 'havitorn' is false; for the correct analysis of the latter see Watkins (1993).

I suggest we have rather another substantivized bahuvrīhi: 'that which has the shape/form of a *kalmi-*'. The original nuance that differentiated *kalmišina-* from *kalmi-* is unrecoverable, perhaps because the longer form competed with and largely ousted the base stem, a common occurrence. Once again, I take the variant *kalmišana-* as showing syncope, with or without subsequent

⁶ In principle such a suffix could be analyzed as **-sen-ō-*, based on the oblique stem of a heteroclitte suffix **-sri/-sen-*, but there is in turn no evidence in Anatolian for such a heteroclitte suffix (as opposed to **-esr/-esr-1-*).

⁷ As already seen by Puhvel (1997:89), the Hittite adjective *karkidant-* is manifestly an adjective with 'possessive' *-ant-* formed from a base **karkid-* 'horn'. As N. Oettinger reminds me, the suffix recalls Hittuvian *zi+ra+nt-* 'horn' from pre-Luvian **kri+nt-* (for the stem see Starke, 1990:406ff.; for the phonology, Melchert, 1994:234 and 260). In fact, the two may be perfectly superimposed, starting from a preform **kri+nt-*. The Hittite shows non-writing or actual loss of the *-nt-* in the cluster *-ntk-*, while **g* undergoes regular palatalization and loss before **i* in Luvian (see Melchert, 1994:254, following Kimball). For the base **kri+nt-* compare of course Sanskrit *śṛṅga-* 'horn'.

anapyctic *-a-*. Note that the earliest example attested, *kalmišaniš* in KUB 17.10 i 6 (OH/MS), shows plene spelling of the *-ri-*, suggesting accent on the second syllable.⁸

A second likely example of a compound reflecting directly the **s* of the second member *šina-* is *(au)kapišāna-*, the name of a vessel, probably a bowl, attested in Hittite ritual contexts. For a summary of evidence for the word in its several variants see Goetze (1937:493, note 3), Bossert (1954:272), and Tischler (1991:129-131). Bossert's attempt (1954:266ff.) to connect this word directly with Hieroglyphic Luvian (CAELUM)*i-pa-s(a)* 'sky, heaven' is no longer viable on multiple grounds (see Tischler, 1991:130, and Starke, 1990:992⁹).

Hawkins (1993) offers a quite new perspective on this problem, based on a new Hittuvian inscription on a silver bowl, where the inscribed object is referred to as *zi/a* CAELUM-*pi* 'this **tapi-*'. Hawkins properly compares the formal relationship of **tapi-* and *tapi-šana-* to that of *(š)kalmi-* and *kalmi-šana-*, but is not explicit as to the status of the newly isolated **tapi-* vis-à-vis the words for 'heaven, sky'. The word CAELUM-*pi* in context is a direct object, and **tapi-* must thus be a neuter *i*-stem. The chances that such a stem represents a reflex of an inherited word for 'sky, heaven' seem very low.¹⁰ It seems more likely that a word for a kind of bowl, **tapi-*, probably of non-Indo-European origin, was spelled with a 'rebus-spelling' CAELUM-*pi*, based on the associations between the notion of 'bowl' and the hieroglyphic sign for 'heaven, sky' as claimed by Bossert, which seem real enough (cf. note 9 and Hawkins, 1993:716).¹¹

In any case, the crucial point for our present purposes is the evidence of **tapi-* (a kind of bowl) for a segmentation *tapi-šāna-* in the name for the Hittite ritual vessel, as per Hawkins. On this basis I suggest the same analysis as for *kalmi-šāna-*: *tapi-šāna-* is '(that) which has the shape of a *tapi*-vessel'. The precise difference in shape and function between the two is unknowable.¹²

⁸ Since this analysis does presuppose that the *-s-* came in contact with the following *-ri-* at least at some point, the nearly complete absence of gemination is noteworthy. It suggests that the rule by which **s* is geminated next to consonant, especially sonorant, in Hittite was not operative at the time of this syncope (on the gemination rule see Melchert, 1994:150ff., with references to Cop and Bernabé). The relative chronology of the gemination rule for **s* and various syncope and anapyxis rules needs further study (cf. my remarks on *pišer-/pišr-* in Melchert, 1994:174f.). As several reviewers have rightly noted, my treatment of anapyxis and syncope in Hittite in the work cited leaves much to be desired.

⁹ One may still concede that the Luvians viewed the sky as an inverted bowl and that the hieroglyphic sign for 'heaven, sky' represents a bowl. And further that Luvian *i/pas/* in the sense 'bowl' may be the source of Greek *πέρας* (thus Bossert, 1954:278ff., following Meriggi, and now Neu, 1999:619ff.). But this is a quite separate issue from that of Hittite *tapišāna-*.

¹⁰ There are certainly reflexes of the PIE root **neh₂-* that do not show the *s*-suffix of Hittite *nēpiš-* and the Luvian cognates for 'sky, heaven', and probably in Anatolian. See Carruba (1998:75ff.) on Cluvian *tapaža-*. But a primary neuter *i*-stem **nōbhi-* is very unlikely.

¹¹ It is true, of course, that such a spelling for **tapi-* can hardly be based on *tapaš-* with its divergent vocalism, but it is likely that Hittuvian had several words transparently related to 'heaven' that began **tap-*. See the preceding note.

¹² The most common variant of *tapišāna-* would, like *juwalpanzana-* and *kalmišana-*, reflect a **tapi-sina-* with syncope of the second *-i-* vowel. The hapax variant *ta-a-pi-ša-a-ni-ri* (KUB 9.17.5) with its unique plene spelling of the second *-a-*, does not contradict this derivation, since it occurs in a NH manuscript that is probably a copy. The plene spelling does suggest that the second *-a-* is at least linguistically real and thus a new anapyctic vowel (cf. the comments above on *juwalpanzana-*). The spellings with *-se* (*-e*/*-na-*) may be taken as reflecting the expected form **tapišāna-* (cf. *kalmišāna-*) with the change of *i* to *e* cited above for *šina-* > *šēna-* itself and other words of similar shape. The one-time plene spelling of the *-e-* in a NH copy

Only one factor introduces some doubt about the analysis as *tāpi-ša/ena-*: the stem *tāpišanti-* attested in *KBo* 3.43.12 *ta-pi-ša-an-du-uš* and *KUB* 34.117.6 *ta-pi-ša-an-ti-i*, which per the contexts means the same as *tāpiša/ena-*. Abstraction of the suffix *-an-* (probably in its "individualizing" function) does suggest a base **tāpiš(a)-*, reviving the problem of where we should segment *tāpiša/ena-*. For this reason I cannot characterize this example as more than a probable case of a substantivized bahuvrīhi with second member *šma-*. I believe that *kahni-ši/ama-* at least does support the analysis presented here for *-zina-* in *alhyanzina-* and *junvapanziana-*. While we cannot be certain, it seems likely that in at least the latter two cases phonological changes obscured the original status of these as compounds for the Hittites as they did for us.

There is no evidence that Hittite *-szina-* (*-s/zana-*) ever became productive, either in compounds or in reanalyzed form as a suffix.¹³ I suggest, however, that this did take place in a similar case in Luvian. In Melchert (1983:139-141) I analyzed "Hittite" *kikluhaššari-* 'iron ring' (which appears once in a trilingual literary text) as a compound of **kiklu-* 'iron' and *paššari-* 'circle', which I viewed as indirectly attested in *paššari-* 'circumcised' < *having a circle'. Pulvel (1996) justly criticized this analysis on several grounds and demonstrated that we must rather isolate a stem *kikluha-* 'iron' (or better 'steel'). This accounts straightforwardly for the derived Luvian adjective *kikluhama/i-* 'iron/steel-coated', which is either a direct denominative adjective (cf. *armannama/i-* 'decorated with lunulae' < *armanna/i-* 'lunula') or the participle to a denominative verb **kiklu/iba(i)-*.¹⁴

Pulvel's analysis of the rest of *kikluhaššari-* is far less persuasive: the appurtenance suffix *-ašša-* plus an "object" suffix *-ri-*. The former is fine, but there simply is no productive denominative noun-forming suffix *-ri-* in Hittite or Luvian. To the extent that *-ri-* is a productive unitary suffix, it is descriptively deverbative: see Neumann (1958) and Melchert (1999:365ff). There are no probative examples from an adjectival stem. We sorely need an alternative solution.

Pulvel himself provides the key when he stresses that *kikluhaššari-* is not an ordinary ring, but rather a seal-ring, a signet (the Akkadian equivalent *unqu* means 'seal-ring', 'stamp-seal' or even 'seal impression'). Since we have other evidence that the word is Luvian, I propose that we have a compound *kikluha-* 'steel' plus **ašš(a)ra/i-* 'image', the latter the precise expected cognate of Hittite *ašš(a)ri-* 'image' < *'essence' < *aš-* 'be'.¹⁵ The word means 'signet of steel', as Pulvel rightly entitles his article. Given the range of meanings of Akkadian *unqu*, the Hittite word as attested could be a determinative compound 'image of steel'. However, since the reference is to a seal-ring (the Sumerian text has *šugur* 'finger-ring'), we must also consider the possibility that *kikluha-(a)ššara/i-* is a substantivized bahuvrīhi 'that which has an image of steel' > 'signet ring'.

The latter analysis provides a plausible source for the otherwise problematic Luvian secondary suffix *-as(s)a/ra/i-* or *-ast(a)ra/i-*, seen in CLuvian *kuštaššara/i-* 'orthostat',

(*KUB* 34.117.7 *ta-a-pi-še-e-mu-uš*) may or may not show a real consciousness of a connection with the simplex noun *šrēna-*.

¹³ Contrary to what I unwisely tried to claim in earlier versions of this paper.

¹⁴ As per Pulvel, the alternation *wi/i* in *kikluhaššari-* vs. *kikluhama/i-* is not problematic: cf. the examples given in Melchert (1994:178).

¹⁵ The lack of plene spelling of the first *-a-* in *kikluhaššari-* is hardly problematic, given that the word is a hapax. If the accent of the compound was on the first member, the long vowel of **aššari-* would have been shortened anyway.

hatašar(a)ra/i- 'violence' (both with cognates in HLuvian), and others.¹⁶ As per Neumann (1965:84ff.), the variant *-štra/i-* is derived from *-s(s)ra/i-* by epenthesis. However, his attempt to explain the source of the latter as thematized from the heteroclitc suffix *-eššar/-eššr-* seen in Hittite is very problematic. See the valid objections of Starke (1990:384f.).

I suggest that an example such as *kuštaššara/i-* 'orthostat' reflects the origin of this type as substantivized bahuvrīhis * (that which) has the form of a wall, wall-like', just like *kikluhaššara/i-*. As in the case of German *-lich*, *-ast(s)a/ra/i-* later became productive as a secondary suffix. Indeed, since virtually all the examples attested are abstract substantives, it is likely that most of these reflect a use of *-ast(s)ra/i-* to form abstracts directly from both nouns and adjectives (e.g. HLuvian *sa-na-wa-i-sa-tara/i-* 'goodness' < *sa-na-wa/i-* 'good').

Use of *-ašš(a)ra/i-* to form adjectives is probably reflected in *dammaššara-* 'domestic of the household' (on which see Melchert, forthcoming). This word occurs thus far only in Hittite form, but nothing about either the shape of the word or its pattern of occurrence precludes its being a loanword from Luvian.¹⁷ A Luvian source for the only other such stem in Hittite, *šakinaššara(a)-* 'whole, integral' is also possible so long as the source and status of the base **šakina-* remains uncertain.¹⁸ The fact that there is no identifiable class of such stems in *-(a)ššara-* in Hittite, while there is in Luvian, argues for a Luvian origin.

If the derivations just suggested withstand further scrutiny, we are led to suppose that Anatolian once had nominal compounding as a more productive process than we had previously thought.

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- ¹⁶ See Starke (1990:384ff. & 419ff.) for the full material, but with a false analysis of stem, gender and part of speech. The textual occurrences demand animate substantives ending in *-ra/i-*.
- ¹⁷ As shown by Starke (1990:passim), Luvian influence on Hittite is attested from the Old Hittite period, contrary to previous claims.
- ¹⁸ My derivation from Hittite *šakina-* 'eye' in Melchert (1993:107f.7) is very difficult semantically, despite the alleged parallel cited there.

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The Role of Ockham's Razor in Historical Linguistics

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0 Abstract

Ockham's Razor, or the principle of parsimony, is one of the most basic concepts in historical linguistics, as well as other disciplines. But our empirical knowledge of language development shows that in practice language change rarely follows the most economical path of diachronic steps. The value of Ockham's razor, then, is to force us to make broader, but simpler assertions, which are more vulnerable to refutation. The more a statement is subject to refutation, the more confidence we may place in it. A further benefit of parsimony is that it allows us to see the developments with which we are concerned in the largest possible context.

In addition, we must distinguish between the often contradictory claims of parsimony on entities (minimizing the distinctions in a reconstructed proto-language) and parsimony on occurrences (minimizing the number of diachronic steps separating our reconstructions from the attested forms that underlie those reconstructions). Either of these can be simplified by making the other more elaborate. Therefore, the value of Ockham's Razor is not as a statement of historical fact, but as a methodological tool to increase the confidence we can place in our assertions.

1 The principle known as Ockham's Razor, often phrased as, "entia non sunt multiplicanda praeter necessitatem" (entities are not to be multiplied beyond necessity) is often stated as one of the primary tenets of historical linguistics (e.g. Hock 1986:538 and passim), and indeed in any branch of reasoning. But reconstructing the development of a language or language family in the most economical manner does not reflect the way languages change in real life. When we have sufficient written records to allow us to see the development of real languages or language families over time, we inevitably find that language does not develop in the simplest conceivable manner but often changes from one synchronic state to another, possibly similar, state by way of unexpected detours. Cases in which we have the empirical evidence to see that Ockham's Razor would have led us astray are commonplace, as in the following examples.

If we attempt to reconstruct the gender system of Latin on the basis of the Romance languages, Ockham's Razor will mislead us. As we know, the modern Romance language collapsed (broadly speaking) the inherited Latin masculine and neuter genders into a single masculine category. Thus, the evidence of the Romance languages does not justify reconstructing the three distinct genders that we know characterized Latin.

When two of three genders (or any other morphological category) are combined, we might expect to see surviving evidence of the earlier state in their later distribution. That is, the result in gender of mixed origin might occur with inordinate frequency, indicating that it represented more than one source. But since the majority of Latin nouns were feminines in the highly productive third declension, masculine nouns do not outweigh the feminines in the modern Romance languages. In this case, the use of Ockham's razor would focus on minimizing the number of distinctions in the reconstructed language, which we know is incorrect.