## Ex Anatolia Lux

Anatolian and Indo-European studies in honor of

## H. Craig Melchert

 on the occasion of his sixty-fifth birthdayedited by<br>Ronald Kim<br>Norbert Oettinger<br>Elisabeth Rieken<br>Michael Weiss



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# The Luvian "Case" in $-\dot{s} a /-z a$ 

Jay H. Jasanoff

The nom.-acc. sg. of neuter nouns and adjectives in Cuneiform Luvian is often accompanied by a suffix $-5 a$, which takes the form $-z a$ after dental stops, $n$, and $l$ (e.g., $w \bar{a} r-s a$
 $z a$ 'evil (adj.)', parattan-za 'impurity' (stem paratta-)). Laroche, the first scholar to identify these forms as a distinct category, understandably found them puzzling. In the grammatical sketch accompanying his Dictionnaire de la langue louvite (Laroche 1959) he spoke of them as "pas encore élucidées," but then went on to refer to a "case" in $-5 a$-a practice that has persisted informally to the present day. By 1965, however, he had changed his mind. A list of corrigenda to the dictionary from that year instructed readers to replace the phrase "cas en -ša" by "possessif enclitique neutre -s" 'son' = hitt. $-s e t$," citing alleged $u d a r-s \check{s} a$ 'its speech' and adduwal-za' its evil' (Laroche 1965:44). The idea was stillborn. Laroche never enlarged upon it, nor was it taken up by any other scholar. It can hardly be correct as it stands, for, as pointed out by Hawkins et al. (1973:37), if -sa was synchronically a possessive, "it would be difficult to see how in the long lists of substantives used in the rituals that indicate good and bad things, only the neuters are affected by it, while the common gender nouns are not." In the half century since the Dictionnaire other suggestions have been put forward, none of them carrying much conviction. Starke's analysis of -ša as a neuter plural ending (1990:45ff.) is simply wrong; the forms in question are grammatically singular in key examples. ${ }^{1}$ Equally untenable is the view that $-s a$ had an "animatizing" (Carruba 1982) or "quasiergative" (Ivanov 2001:137) function. As our honorand notes (Melchert 2003a:186f.), the overwhelming majority of the actual forms made with this suffix, like neuter nom.acc.'s generally, are syntactically direct objects - precisely the opposite of what would have been expected if they had been created to fill a specifically agentive role. ${ }^{2}$

A major turn toward a proper understanding of $-s a /-z a$ was taken with Melchert's analysis, first presented apud Arbeitman 1992:34, of the remarkable form inzagan-za. The Luvian passage (KBo XXIX 6 Ro 22-3I) reads as follows: ${ }^{3}$
$22 z a-a s_{s}^{2}=p a-a=t-t a k u-w a-t i-i n z a-a m-m i-t a-a-t i-i s^{N_{4}}{ }^{\mathrm{NA}_{4}}$ bar-ra-a-ti[

24 wa-aš-ku-li-im-ma-a[-ti]

[^0]```
\(i\)-in-za-ga-an-za=pa ku-wa-ti-in ša-pi-ya-im-ma-an \(a-u\)-i-i-du=(w) \(a\)-[aš=ta
wa-aš-ku-li-im-ma-a-ti ma-al-ha-aš-sa-aš-ši[-
\(z a-a=p a \quad k u\)-wa-ti-in wa-aš-hba-sa-u-ra ku-wa-an-z[u-wa?] a-a=t[
\(k u\)-un-zu-ni-in-du ma-al-ba-aš-ša-aš-ši-iš [EN-aš
DUMU.MEŠ-ti DUMU?.MUNUS.MEŠ-ti ḩa-am-ša-ti hुa-am[-šu-uk-kal-la-a-ti
```



```
ku-um-ma-ya-a=t-ta u-ra-an-nu-un-du [
```

The structure here is clear: we are dealing with a conjuration of the form "As A is $X_{a}$, let such and such $\ldots$; as B is $X_{b}$, let such and such ... ;" and so on. There are four parallel formulas (ll. 22-24, 25-26, 27-29, 30-31) and four terms A, B, C, D. $\mathrm{A}, \mathrm{C}$, and D are of the form za- 'this' noun: zas' zammitātis 'this flour' (1. 22; nom. sg. com.), zā wašhašaura 'these $w$.' (l. 27; nom. pl. nt.), zaš kummas' ${ }^{\mathrm{NA}_{4} \bar{a} s ̌ s u s ̌ k}{ }^{k}$ this holy
 other three; in context it can only mean 'this $i$.' or, with the meaning later established for $\overline{i n z a g a n}$ by Melchert, 'this inhumation'. ${ }^{4}-z a$ here is a postposed demonstrative, the representative or replacement of preposed $z \bar{a}\langle z a-a\rangle\left(<{ }^{*} z a t\right)$. The question then inevitably arises: is this $-z a$ the same as the "case" marker $-5 a /-z a$ ?

On first impression, the answer would seem to be yes. Formally, inzagan-za has the canonical look of a form in -sa; functionally, it is easy to see how such a complex could represent a survival, an exceptional instance of $-\bar{s} a /-z a$ retaining its original value. On closer examination, however, the situation quickly turns out to be more complicated. A basic choice has to be made at the outset: do we identify the $-z a$ of inzagan-za etymologically with the "case" marker -ša/-za, thus projecting it back to a preform in $*_{s-}\left(*_{s o ?} *_{s o d ?}\right)$; or do we see it as a cliticized form of the stressed pronoun $z a-(=$ Hitt. $k a-)$, itself a reflex of PIE * $\hat{k e} / 0-$ ?? The two possibilities are mutually exclusive; there is no middle ground. Favoring *so(d) (vel sim.) is the typologically attractive picture of a weak demonstrative losing its deictic value and slipping into the role, elusive and possibly discourse-linked, of the "case" in -sá. This is the scenario envisaged by Arbeitman (1992:23ff.), who argues for a post-IE nom.-acc. neuter demonstrative ${ }^{\text {sod }}$ based on the familiar PIE $*_{s o-} / * t o$ - pronoun; ${ }^{6}$ it is also the view favored by our honorand (cf., e.g., Melchert 2009:IsIf.). But speaking for a derivation of -za from * $\hat{k o}(d)(v e l$ sim.) is the fact that the $-z a$ of $\overline{i n z a g a n}-z a$, unlike the ending $-5 a /-z a$, clearly means "this" and actually substitutes for a stressed form of the demonstrative $z a$-. Likewise supporting a derivation from * $k$ - is Melchert's independent observation, now a quarter-century old (1984:28f.), that the cognate pronoun $k a$ - 'this' (< * $\hat{k e} / 0$-) regularly cliticizes to the nom.-acc. forms of neuter nouns in the other "minor" Anatolian language of the second millennium, Palaic (e.g., huwanbuwanni-kat 'this h.',

[^1]wūzanni-kat 'this $w$. ', pl. aškumāuwa-ga 'these pure meats'). The contrast between the two "readings" of inzagan-za is best seen in tabular form:

|  | putative source of $-z a$ in $\bar{\imath} z a g a n-z a$ | historically same as Luvian "case" in -5̌a? | historically same as Luvian za- 'this'? | historically same as Palaic -kat? |
| :---: | :---: | :---: | :---: | :---: |
| I) | *-so(d) | yes ${ }^{7}$ | no | no |
| 2) | *-ko(d) | no | yes | yes |

Neither analysis is completely satisfying. The choice of *-so(d) "explains" the forms in $-5 a /-z a$, but at the cost of separating $\bar{i} n z a g a n-z a$ from stressed $z a$ - and the strikingly parallel construction with -kat in Palaic. The choice of *-ko(d) leaves our central problem - the origin of the "case" in - $5 \sim a$-without any resolution at all.

At this point we may step back and ask another question: how well (or poorly) do the other facts in the case of -sa square with the hypothesis that it was originally a demonstrative? A weakened demonstrative might have evolved into a definite article or-more likely in the present instance - some other indicator of old vs. new information, such as a topicalizing or focusing particle. Such elements are notoriously hard to pin down in poorly attested languages like Cuneiform Luvian; in this respect, at least, the elusive character of $-5 a$ is consistent, in a negative sort of way, with the theory of a demonstrative origin. Yet even a "fuzzy" meaning of -sa might have been expected to leave a trace in the raw distributional data - the list of particular words and syntactic environments where -sáa is used and not used. Surprisingly, no such "census" has ever been taken.

Thanks to Melchert's Cuneiform Luvian Lexicon (1993); hereinafter CLL) and Cuneiform Luvian Corpus (Melchert 2001; hereinafter CLC), both conveniently available on line, ${ }^{8}$ it is a simple task to collect all the nom.-acc. sg. nt. forms in the Cuneiform Luvian corpus - some of them with -sa, some not. A complete list of such forms, if we had one, would be useful in a number of ways. In a philologically ideal world, it could be used to draw up a shorter list of words attested both with and without -sa; contexts favoring and disfavoring the suffix could then be compared and contrasted, and appropriate hypotheses formulated for testing against the rest of the neuter vocabulary. In practice, of course, no such procedure is remotely thinkable with the Luvian corpus, which has been characterized by one of its most eminent students as "very limited in extent, content, and vocabulary, and ... not strikingly intelligible" (Hawkins 2003:139). The majority of continuous Cuneiform Luvian texts are fragments, the remains of a small original core of cultic songs and incantations, internally repetitious and repetitious from fragment to fragment. Many words and forms are recorded only once; even those that might be called "well-attested" are often known only from copies, repetitions, or echoes of a single passage. ${ }^{9}$

In short, there is not much chance that we will ever discover the lingering "true" meaning of -sa, if any, by close reading of minimally contrastive textual passages. But

[^2]a corpus-wide overview can yield insights of a different kind. Just such an insight is the striking fact, apparently never noted before, that the choice of-ša/-za in Cuneiform Luvian neuter nouns was almost entively lexically and morphologically determined. Some neuters always formed their nom.-acc. sg. in -sa; the rest, with only marginal exceptions, never did. From a synchronic point of view, $-5 \check{s} a$ was neither the mark of a special case, nor a demonstrative, nor a discourse marker; it had no contrastive function at all.

By way of documenting this point, let us begin by considering a characteristic class of Luvian nouns, the neuter abstracts in -abit- (- $\bar{a} b i t-)$. These are a productive type, represented by over two dozen lemmata in CLL. ${ }^{\text {Io }}$ Fifteen -abit-stems are documented in the nom.-acc. sg.: anābi 'sample, taste', $\bar{a} n n a r u m m \bar{a} b i$ ( $\mathrm{I} \times$ ) $\sim-\bar{a} b i-s{ }^{-} a(\mathrm{I} \times$ ) 'forcefulness, virility', ašrulābi-ša 'femininity', atrāhi-sǎ 'nourishment', bantawadabiša 'position of supreme authority, kingship', baddulahi-ša 'health', buitwalāhi-ša 'life', kunzigannabi-ša (meaning unknown), mašbābisisa 'growth, prosperity', \&ušantarabi$s a^{\prime}$ 'prosperity, well-being', urannibi-să' ${ }^{\text {II }}$ (meaning unknown), wārannabi-săa (meaning unknown), wayahi-sáa (meaning unknown), iunābi-ša 'mobile wealth', zidāhi-sa 'manhood'. Surveying this list, one is immediately struck by how, with the exception of anābi and the hapax $\bar{a} n n a r u m m \bar{a} b \bar{b}(-\bar{a} b \bar{b} i-s a)$, all end in -ša. These exceptions, moreover, are only apparent. $\bar{a} n n a r u m m \bar{a} b \bar{i}$ occurs in a passage (KUB XXXV 133 ii 30 ; CLC p. 131) where it is coupled with the parallel -abit-stem buitwalābi-sa; the conjoined phrase $\bar{a} n n a r u m m a \bar{a} b i ~ b u i t w a l a ̄ b i-s a ̆-b a ~ ' l i f e ~ a n d ~ s t r e n g t h ' ~ s h o w s ~ a ~ k i n d ~ o f ~ G r u p p e n f l e x-~$ ion, with -sal having scope over the first term as well as the second. The other seeming exception, an $\bar{a} b i$, is a normal form with over two dozen citations in $C L L$, making it by far the best-attested -abit-stem in the language. But these attestations are all in Hittite documents. Much of the Luvian vocabulary is attested in the form of Luvianisms in Hittite texts, which may be partly nativized loanwords or outright foreignisms. anābi is a conspicuous instance of such a form, being recorded in a variety of ritual and festival texts, none of them actually composed in Luvian. While Luvianisms are invaluable as a source of lexical information, they cannot be used as evidence for the distribution of -s $s a /-z a$ in Cuneiform Luvian proper. The less-than-transparent principles underlying the use of $-s a /-z a$ were clearly variable across the Luvian-speaking area; the only other "dialect" we control, Hieroglyphic Luvian, has made -sa/-za obligatory for all stems in all environments. ${ }^{12}$

If anābi is eliminated from our data set, we must also eliminate kunzigannabi-ša and $\& u s a n t a r a b i-s a$, which are likewise known only from Hittite contexts. This still leaves a remarkable "corpus" of twelve forms in $-a b i-5 a$ and none in unextended -abi. ${ }^{13}$ While it is true that most of the -abi-sa forms are attested only once, ${ }^{14}$ the sheer lopsidedness of the $12:$ o distribution makes it clear that for these words, at least, the

[^3]selection of -sáa was not a matter of syntax, semantics, or pragmatics, but of morphology. The rule that emerges is starkly simple: nouns in -ahit-formed their nom.-acc. sg. in -ša. ${ }^{\text {Is }}$ More such rules will be encountered below.

A striking contrast to the -abit-nouns is offered by the three neuter nouns tātari-yamman- 'curse' ( $n$-stem), bī̀ $\bar{u} n$-/bīr $\bar{u} t$ - '(false) oath' (" $n / t$-stem"), ${ }^{16}$ and taparu(meaning unknown) ( $u$-stem), which are typically found together. A recurring phrase in the corpus is taparu tātariyamman $\operatorname{b} \bar{r} \bar{u} \bar{n} n$ (nom.-acc. sg.), denoting a trio of evils that the accompanying ritual is intended to avert. Various grammatical configurations are encountered: the phrase may be pluralized (tapāruwa bī̀ūta tatarriyamna (in non-canonical order) KUB XXXV 39 ii 13) or transformed into a genitive adjective (taparuwassisiš tātariyamnašiš̌ h̄īrūtašsiš, etc.); very occasionally, one of the three words appears separately from the others. In the nom.-acc. sg., there are nineteen unrestored instances of taparu in CLC, eight of tātariyamman, and sixteen of bi $\bar{\imath} \bar{u} n$; none at all are found of *taparu-sa, *tātariyamman-za, or *hī $\bar{u} n-z a{ }^{17}$ Thus, just as the abstracts in -abit- always take -sa/-za, the nouns taparu, tātariyamman, and bivirūn invariably lack it. Was the "resistance" of these forms to $-5 a /-z a$ a purely lexical idiosyncrasy or a general property of $u$ - and $n$-stems? The evidence, although scarce, suggests the latter. taparu is one of only two $u$-stems with an attested nom.-acc. sg. in Cuneiform Luvian; the other is the hapax maddu 'wine', likewise without $-s a^{5} .^{18}$ Among the $n$-stems, tātariyamman and $\operatorname{b} \bar{i} r \bar{u} n$ (treating it as an $n$-stem for these purposes) are by far the best attested nom.-acc. sg. forms. But there are others: wašumman ( $\mathrm{I} \times$ ) (meaning unknown), zamman ( $2 \times$ ) (meaning unknown), NUMUN-an (= warwalan) ( $\mathrm{I} \times$ ) 'seed', and $t \bar{a} i n(2 \times)$ 'oil'. The last of these, $t \bar{\alpha} i n$, has an apparent variant [ $t] a-i n-z a$ (VBoT 60 i 7; CLL 179), our only seeming instance of an $n$-stem in $-s a /-z a$. Neither the spelling nor the context of this form inspires total confidence in its authenticity. ${ }^{19}$ But even if it is a genuine counterexample, the descriptive rule remains overwhelmingly valid: nouns in -u- and -n- formed their nom.-acc. sg. without -ša/-za.

The aversion of $n$-stems to $-5 a /-z a$ is all the more remarkable in view of the fact that thematic (" 0 -stem") nouns, where the nom.-acc. sg. also ended historically in $-n$ (-an

[^4]$<^{*}$-om), show a pronounced affinity for -ša/-za. Melchert lists five such words: baršan$z a(3 \times)$ (meaning unknown), (GIŠ) wašsan-za ( $2 \times$ ) 'table', parattan-za ( $\mathrm{I} \times$ ) 'impurity', $m i(y a) s ̌ a n-z a(4 \times)$ (unknown body part), parnan-za ( $3 \times$ ) 'house'. Here too the pattern is broken by a single token of a single word-parnan, in the broken context KBo XXXII 126 i 9. But again the general principle is clear: neuter a-stem nouns formed their nom.-acc. sg. in -ša/-za (-an-za). ${ }^{20}$

A further class associated with -s $\bar{\sigma} a$ are the $s$-stems, represented by $\bar{a} s-s a(3 \times)^{\text {' }}$ mouth', balliš-ša ( $3 \times$ ) 'sickness', $\overline{b \bar{c}}{ }^{2}-5 \check{s} a(4 \times)$ 'bone', kuppiš-ša ( $2 \times$ ) 'bench, footstool', tappaš-sa ( $\mathrm{I} \times$ ) 'heaven', and tāruš-sáa ( $5 \times$ ) 'statue'. Perhaps not accidentally, the only word that violates this pattern, bupallis 'scalp' or 'cranium' (KUB XXXV IO7 ii 14), is also the only one with a trisyllabic stem. For mono- and disyllabic stems, the rule is absolute: neuter s-stem nouns formed their nom.-acc. sg. in -ša.

In the case of the $r$ - and $r / n$-stems, which are difficult to tell apart in Luvian, we find the first and only major group of neuter nouns where the presence or absence of $-s a /-z a$ is a matter of lexical rather than morphological choice. Very few of these words are attested more than once in the nom.-acc. sg., making them less informative as a class than the types discussed above. Yet even here the choices are consistent, in the sense (in large part trivial, to be sure, given the preponderance of hapaxes) that no word appears both with and without -ša. Forms with -ša are $\bar{s} s b a r-s ̌ a ~(I \times)$ 'blood', b̄arat (t)ar-ša ( $\mathrm{I} \times$ ) 'offense', buidumar-ša ( $\mathrm{I} \times$ ) 'life', d̄̄padupar-ša ( $\mathrm{I} \times$ ) 'punishment' (vel sim.), utar-ša ( $7 \times$ ) 'word, spell', ${ }^{21}$ uwattar-ša ( $\mathrm{I} \times$ ) (meaning unknown), and $w \overline{a r}$-ša ( $3 \times$ ) 'water'; lacking -ša are lammaur ( $\mathrm{I} \times$ ) (meaning unknown), pāh $\bar{u} r$ ( $\mathrm{I} \times$ ) 'fire', and wašsar ( $\mathrm{I} \times$ ) 'favor'. ${ }^{22}$ The small number of substantival $l$-stems in Cuneiform Luvian seem to have behaved like $r$-stems: paršul-za ( $\mathrm{I} \times$ ) 'crumb, morsel', but šipal ( $\mathrm{I} \times$; also šehuwā̄l?) 'dagger' and $\bar{a} d d u w \bar{a} l$ ( $\mathrm{I} \times$ ) 'evil (noun)'. ${ }^{23}$

The results of our survey can be summarized as follows:

| STEM TYPE | $-s a /-z a ?$ |
| :--- | :--- |
| 1) $-a b i t-$ | yes |
| 2) $-u$ - | no |
| 3) $-n-$ | no $^{24}$ |
| 4) $-a-$ | yes $^{25}$ |
| 5) $-s-$ | yes $^{26}$ |
| 6) $-r-,-r / n-,-l-$, etc. ${ }^{27}$ | assigned on a word-by-word basis |

[^5]All this makes it clear why investigators have had such difficulty locating the synchronic function of $-s a /-z a$ : there was none. Whatever $-s a /-z a$ may originally have meant in Proto-Anatolian or Proto-Luvian, its only synchronic role in Cuneiform Luvian was to accompany the nom.-acc. sg. in some, but not all, neuter nouns; in the rest it was not employed at all. In Hieroglyphic Luvian, where -sa/-za is simply obligatory everywhere, it is plausible to suppose that the situation was once similar to that in Cuneiform Luvian, with a restricted, non-transparent distribution that was later extended. But the etymological, functionally rooted use of $-5 a /-z a$ was probably lost before the two dialects separated:

```
            Pre- or Proto-Luvian
    (*-sa/-za functionally motivated)
        \swarrow
```

Cuneiform Luvian
(-ša/-za fixed in some words, excluded from others)

Hieroglyphic Luvian
(-sa/-za fixed everywhere)

The original motivation for our just-completed survey was Melchert's interpretation of CLuv. inzagan-za as a sequence of noun + DEmonstrative-'this inhumation'. The possibility of equating the $-z a$ of this form with the "case" ending $-s a /-z a$ raised an interlocking series of questions: i) could clitic $-z a$ 'this' (i.e., the $-z a$ of inzagan-za) have been etymologically distinct from stressed $z a$ - 'id.'? 2) if the stressed and clitic demonstratives were distinct, could $-z a$ 'this' and the "case" marker $-5 a /-z a$ both go back to the same source, presumably a neuter demonstrative ${ }^{\text {s }}$ od? 3) specific scenarios aside, is the attested profile of $-5 a /-z a$ generally favorable to the hypothesis of demonstrative origin? We can now consider these together.

The logical possibility of separating clitic $-z a$ 'this' from stressed $z a$ - is not, of course, at issue. But without very strong evidence to the contrary, it would be a major violation of Occam's Razor to posit separate origins for a pair of synonymous and segmentally homophonous items that not only could go back to PIE *ke/o-, but which exactly match a pair of Palaic forms ( $k a$ - and -kat) that clearly do go back to this pronoun. The real question, then, is whether there is any compelling reason to prefer the "case" analysis of $\overline{i n z a g a n-z a}$ (i.e., the reading with $-s a /-z a$ ) to the "Palaic" reading-the interpretation with $-z a<*-\hat{k} o d$ (vel sim.). Our distributional data are not favorable to the case analysis. inzagan- 'inhumation" is an $n$-stem, abstracted, as Melchert has elsewhere convincingly shown, from a phrase *endhgöm 'in the earth' (cf. n. 4). $n$-stems, however, are conspicuous for their lack of -ša/-za (cf. hī̀ū̄n (16×), tātariyamman (8×), etc.). If $\bar{i} n z a g a n-z a$ were an actual exemplar of the "case" in $-5 a /-z a$, it would not only be the only such instance where the suffix had an identifiable meaning; it would also be our only case (apart, perhaps, from tain-za) of -ša/-za added to an $n$-stem.

[^6]Thus, as far as the origin of $-5 a /-z a$ is concerned, $\overline{i n z a g a n-z a}$ is best kept out of the picture. Naturally, $-5 a /-z a$ could theoretically go back to a neuter demonstrative ${ }^{\text {s sod }}$ in any case, regardless of the status of inzagan-za. But without an unambiguous instance of -s $a /-z a$ serving in a demonstrative function, the arguments for starting from a preform *sod effectively disappear. Anatolian notoriously lacks uncontroversial reflexes of the PIE ${ }^{*}{ }_{s o-} / *_{t o}$ - pronoun, ${ }^{28}$ the nom.-acc. sg. nt. of which is in any case reconstructable as *tod, not *sod. ${ }^{29}$ Even if it could lightly be assumed-and it cannot-that ${ }^{*}$ - was precociously generalized at the expense of $*^{\prime}$ - in Anatolian, the simple fact remains that there is nothing in the attested distribution of $-5 a /-z a$ to suggest that it ever had demonstrative value. If anything, the opposite is the case: it would be surprising if an original demonstrative had become obligatory in the -abit-stems, which are all abstracts ('femininity', 'manhood', 'prosperity', etc.), but not in concrete nouns like tātariyamman 'curse', maddu 'wine', $p \bar{a} h \bar{u} \bar{r}$ 'fire', etc.

Given the low explanatory power of the demonstrative theory, it behooves us to revisit older approaches to the problem. One early idea, briefly mentioned above (p. 167), was Laroche's 1965 "possessive" theory, which compared Luv. $-s a /-z a$ to Hitt. $-(s)$ séet 'his, her, its', the neuter 3 sg. possessive suffix. Rather improbably, Laroche tried to explain $-s a /-z a$ as a synchronic possessive marker-a possibility now excluded by the discovery that $-5 a /-z a$ had no contrastive function at all. But the functional vacuity of $-5 a /-z a$ in the attested forms of Luvian does not mean it could not have served in a possessive-marking capacity earlier. An insight into how a possessive clitic might have been weakened semantically into a Luvian-like placeholder is furnished by the "split genitive" construction of Old Hittite - the usage seen in expressions like LÚ. $\mathrm{U}_{19}$.LU-aš ELLAM-aš $\mathrm{KIR}_{14}=$ šet 'a free man's nose’ (lit., 'a free man's his nose'), ${ }^{\text {d }}$ IM-naš sášanti=šši 'to the Storm God's concubine' (lit., 'to the Storm God's his concubine'); cf. Hoffner and Melchert 2008:25Iff. In an important study of these forms, Garrett (1998) showed that the split genitive was proper to inalienably possessed nouns, chiefly kinship terms (including atta- 'father', LỨgaina- 'relative', and šašant'concubine') and body parts (including aiš 'mouth', essbar 'blood', istamana- 'ear', keššar 'hand', mene 'face', pata- 'foot', pittuliya- 'pain', and fossilized kitkar'(at the) head (of)' and $\bar{s} \bar{e} r$ '(on) top (of)'). A distinction between two kinds of possession-one associated with objects inherently apt to be possessed, and the other with objects for which possession is marked and contingent-is found in many of the world's languages. A scenario by which the alienable : inalienable distinction could have become grammatically significant in Hittite is easy to imagine. At what we may call "stage I," juvenile acquirers of pre-Hittite would have encountered a universe of primary linguistic data in which relational terms like attass 'father' rarely occurred without a possessor-either

[^7]a stressed noun or pronoun (e.g., ${ }^{1}$ Appuwwaš attaš 'A.'s father', ${ }^{3 \circ}$ s siunan attaš 'the gods' father', ammēl attaš 'my father'), an unstressed $\mathrm{I}-2 \mathrm{sg}$. or $\mathrm{I}-3 \mathrm{pl}$. pronoun (attaš=miš, attaš=smiš, etc.), or (in the unmarked case) an unstressed 3 sg . pronoun (attaš=̌̌iš). Such learners, drawing the incorrect conclusion that "father" had to be possessed and that its basic form was $a t t a s=s i s$, , could have experimented with substituting $a t t a s=s i s$ for attas everywhere, wrongly generating (inter alia) the juvenile pre-Hittite equivalent of *1 Appuwaš attašš̌iš, and even *siunan attaš=siš and *ammēl attaš=siš, in place of the older unsuffixed forms. Later, at "stage II," another generation of speakers, or the same speakers further along in the acquisition process, would have repaired the apparent person and number agreement violations of stage I, producing the split genitive in its attested form (*šiunan attaš=siš $\rightarrow$ šiunan attaš=šmiš, *ammēl attaš=šis $\rightarrow$ ammēl attaš=mis's. ${ }^{31}$

The Luvian "case" in -sa/-za, I would suggest, can be explained on the basis of an earlier linguistic stage at which Luvian had a split genitive construction like that of Old Hittite, possibly inherited from Proto-Anatolian. ${ }^{32}$ As our earliest texts make clear, possessives were restructured more rapidly and radically in Luvian than in Hittite. The enclitic possessive constructions, both the "normal" type and the split genitive, were abandoned, apparently prehistorically, ${ }^{33}$ and replaced by the syntagma GENItive adjective + possessed noun (e.g., malbašsussisiš EN-aš lord of the ritual, ritual client', tūwiš UD.KAM-is' 'your year', dat. pl. apā̄̃šanza wašsinanza 'to his ( = that

[^8]I ba-at-ta-ra-am=ša-an a-ya-ta]
2 mu-bba-at-ra-am=s $a-a n ~ a-y a-t[a]$
3 pí-iz-za-ar-na-am=ša-an $a-y a[-t a]$
4 tu-u-ri-im=ša-an a-ya-ta
The sense of these lines is obscure. The four nouns hattara-, mubattara-, pizzarna-, and tūri- apparently denote tools or garden implements. Carruba takes the element -san to be the animate acc. sg. of the possessive suffix ( = Hitt. -san), and -ša in a later line (iii $\mathrm{I}_{2}-\mathrm{I} 3$ pariyam= $=\stackrel{\Sigma}{a}=t t a \operatorname{tarzandu)}$ to be the corresponding neuter form added to a preposition (cf. Hitt. pera=šset < *peran=šet 'before him'). Given the opacity of the text and our still evolving knowledge of Luvian grammar, it would be going too far to deny the possibility of such an interpretation categorically. But there are good grounds for skepticism. All five instances of $-5 a(n)$ are confined to the single fragment KBo XIII 260; all are in Wackernagel's Law position, suggesting the possibility of a sentential or "free" clitic; and all show the peculiar and unproductive sandhi *-an=sa->-am-5a ( = [-ãs-]?), otherwise unknown in the Luvian corpus. The case for Carruba's reading of pariyam-ša-with frozen sandhi and -sa synchronically reinterpreted as an object pronoun, not a possessive-is perhaps less difficult than the case for a possessive reading of the forms in -san. It is noteworthy that the verb form ayata is unique as well: the normal 3 sg. pret. act. of $a(y a)$ - 'make, do' is $a t a$, a form abundantly attested both in this text ( $7 \times!$ ) and elsewhere. See further n. 38 .
one's) limbs', etc.). ${ }^{34}$ But the loss of the possessive suffixes would inevitably have been a simpler process in some morphosyntactic contexts than others. Ordinary instances of contingent possession (e.g. pre-Luv. *hāwiš=šiš 'his/her sheep', *maddu=ša (<*-sed) 'his/her wine'), with a potentially freestanding noun (*bāwiš, *maddu) followed by an easily parsable possessive clitic, would have been relatively easy to modernize: the clitic could simply be replaced by a stressed pronominal possessor in the normal prehead syntactic position (*b̄āwišš̌is $\rightarrow$ *apašiv̌ hāwiš, *maddu=ša $\rightarrow$ *apaš̌an maddu). ${ }^{35}$ In cases of non-contingent or inalienable possession, however (e.g., * $t \bar{a} t i s ̌=\check{s}\left\langle\check{c}^{〔}\right.$ 'his/her father', *h $\bar{s}(s)=s ̌ a$ 'his/her bone'), the possessive suffixes would have had greater staying power. Here, assuming a pre-Luvian split genitive construction of the Hittite type, an enclitic possessive would have been present in all possessive expressions, even when an overt nominal possessor was on hand as well (cf. the Hittite type
 of heaven' or *wānašsan $\bar{b} \bar{a}(s)=s{ }^{\prime}(s a$ 'woman's bone'). To the learner of (pre-)Luvian at this stage, the grammar of possessive constructions would have presented difficulties. With freestanding nouns of the "inalienable" type statistically uncommon and the en-

 by language learners as the basic terms for 'father' and 'bone'. ${ }^{36}$

It was just such a misinterpretation, I believe, that gave rise to the neuter "case" in $-5 \bar{s} a /-z a$. From a morphological point of view, animate inalienable expressions like nom. sg. *tātiš=sǐ̌̌, acc. sg. *tātin=šan(?), etc. were transparent: learners could see that they consisted of a case-marked noun and case-marked clitic, with *-s. . . $-s^{\kappa}$ in the nom. sg., ${ }^{*}-n \ldots-n$ in the acc. sg., and so on. The unambiguous parsing of ${ }^{*}$-sǐ̌̌, *-šan, etc. as a declined element, together with its lack of any identifiable synchronic function, led to its simply being eliminated in the majority of settings, including the animate nom. sg. and acc. sg. But the nom.-acc. sg. of neuter inalienables was a special case. Here there was no formal contrast between * $b \bar{a} s(s)=s ̌ a ~ q u a ~ n o m i n a t i v e ~ a n d ~ * h \bar{a}(s)=s ̌ a q u a ~ a c-$ cusative, and no transparent $*_{-} s,{ }^{*}-n$, or other case ending to show that the element ${ }^{*}$ - $s a$ actually agreed with $* b \bar{a} s(s)$ - in case, number, and gender. ${ }^{37}$ The result was an exceptional reanalysis: -ša was reconceived as an obligatory, purely grammatical morpheme that accompanied the preceding nominal stem in the nom.-acc. sg.-in effect, a case ending. As such, it could no longer remain stably and exclusively associated with inalienable nouns, which in no other respect still patterned as a grammatically relevant category. Inevitably, the appearance or non-appearance of $-s a /-z a$ in the paradigm of

[^9]a given nominal stem came to depend less on the semantic feature of (in)alienability and more on the formal and/or associational features that the noun in question shared with other words that took -sa/-za. Thus arose the Cuneiform Luvian situation as we find it, with $-s a /-z a$ morphologically and lexically, but not semantically determined. ${ }^{38}$

It is interesting to note that the historical link between $-5 a /-z a$ and inalienable possession is still detectable in the distributional data of our survey. $h \bar{a} \bar{s}-s \check{c} a$ is one of six $s$-stems with a nom.-acc. sg. in -sáa; the others include the body part $\bar{a} s-s v_{a}$ 'mouth', as well as balliš-ša 'sickness' and tāruš-ša 'statue' (i.e., 'sculpted image'), which can unforcedly be considered extended body parts. ${ }^{39}$ It is no coincidence that the morphophonemically archaic $z \bar{a} r-z a$ 'heart' (cf. n. 27) is a body part. Among the $r$ - and $r / n$ stems, the seven that take -s $\bar{a}$ include $\bar{a} s b a r-s{ }^{\prime} a$ 'blood' and buidumar-ša 'life', the latter an abstract of a type known to pattern crosslinguistically as inalienable (see below). ${ }^{40}$ One of the five $a$-stems in our sample is $m i(y a)$ san-za, also a body part. ${ }^{41}$ Especially interesting are the twelve productively derived abstracts in -abit-, all of which take $-5 a(-a b i-s a)$. These words, like buidumar-sa, denote "organic" attributes ("virility," "health," "prosperity," etc.), which the accompanying ritual seeks to safeguard and/or secure. As noted by Heine (1997:10) and Nichols and Bickel (2005:243), terms for abstract properties recurrently pattern with the inalienable class in languages with an alienable : inalienable distinction. paratta- 'impurity' (nom.-acc. sg. -an-za) is another such term.

The end of the story is simply told. In Cuneiform Luvian, $-5 a /-z a$ spread extensively in the stem types where it had an etymologically justified basis - most conspicuously the $s$-stems, $a$-stems, and (more hesitantly) the $r-, r / n$-, and other consonant stems. It also spread to adjectives, where the rules governing its use have yet to be thoroughly investigated (cf. n. 20). Other varieties of Luvian made other choices; Hieroglyphic Luvian, as is well known, eventually generalized -sa/-za everywhere. The variable distribution of -sa/-za in Luvianisms in Hittite texts confirms our suspicion that the distribution of *-sa/-za in Proto-Luvian must have been quite different from that in any actually attested form of the language. ${ }^{42}$

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[^0]:    ${ }^{1}$ The plural analysis of -s $5 a$ actually goes back to Otten (1953:65), who did not, however, recognize that - $5 a$ and $-z a$ belonged to the same morpheme.
    ${ }^{2}$ The real ending that used to make neuter nouns "agentive", of course, is the ergative marker -antis, which alone renders them capable of serving as the subject of a transitive verb (Melchert 2003a:202).
    ${ }^{3}$ Text after Melchert 2001:46f.

[^1]:    ${ }^{4}$ Melchert's derivation of this word from *en dhghhŏm 'in the ground' (vel sim.; Melchert 2003b) establishes [tsk] as the treatment of PIE thorn clusters in Luvian. It also strengthens the probability that the "thorn" of such sequences was an affricate or stop + sibilant cluster in the parent language.
    ${ }^{5}$ For the development $* \hat{k}>z$ in Luvian see Melchert 1987. At a talk given at Harvard in December, 2008, Melchert argued that the change was regular before front vowels and analogical elsewhere.
    ${ }^{6}$ But *sod was not a PIE form; see below.

[^2]:    ${ }^{7}$ "Yes" here means "in principle possible." In theory, the $-z a$ of $\overline{i n z a g a n}$-za could go back to *sod without being the source of $-5 a /-z a$.
    ${ }^{8}$ At http://www.linguistics.ucla.edu/people/Melchert/webpage/AnatolianDatabases.htm.
    ${ }^{9}$ To say nothing of those attested only in Hittite contexts; see below.

[^3]:    ${ }^{10}$ To avoid an excess of orthographic variants, lemmata are cited in their $C L L$ form.
    ${ }^{11}<{ }^{*}$-iyabi-sáa; cf. CLL s.v.
    ${ }^{12}$ Whether Cuneiform and Hieroglyphic Luvian should properly be considered dialects is an open question (cf. Melchert 2003a:17fff.). The relevant issues, though without mention of $-s a /-z a$, are laid out by Yakubovich (2010:64ff.).
    ${ }^{13}$ Apart from $\bar{a} n n a r u m m \bar{a} b \bar{i} ;$ cf. above.
    ${ }^{14}$ The exceptions are wārannabi-ša ( $5 \times$ ) and iun $\bar{a} h i-5 \bar{a} a(6 \times)$, which always occur together in what are basically multiple copies of the same passage.

[^4]:    ${ }^{15}$ So too for three other nouns in -it-: GIškattaluzzi-ša 'threshold', mūdamūdali-ša (meaning unknown), and warpi-sa (meaning unknown). But the nom.-acc. sg. of mallit-'honey' is malli ( $3 \times$ ), not *malli-sa.
    ${ }^{16}$ For the unique stem formation of this word see Watkins (1993), amplified by Melchert (2004).
    ${ }^{17}$ Only forms attested in their entirety, or nearly so, are included in these statistics; if safe restorations were counted the number would be higher. It must be remembered, however, that the sixteen occurrences of (e.g.) $\operatorname{bi} \bar{r} \bar{u} n$ in our total do not amount to sixteen independent tokens. At most they show a) that the very slightly varying contexts in which the iterated phrase taparu tātariyamman buirūn occurred in the original ritual did not call for $-z a$; and $b$ ) that the possibly non-Luvian-speaking scribes who copied the original, given sixteen opportunities to modify unextended $b \bar{\imath} r \bar{u} n$ (and who freely altered it orthographically: $b i-i-r u$ -$u^{\prime}-u n$, , $i-r u-u$ i-un, $h i-i-r u-u n$, etc.), were never tempted to expand it to * $b \bar{i} \bar{r} \bar{u} n-z a$.
    ${ }^{18}$ It is particularly interesting that maddu (KBo VII 68+Ro ii Io; CLL 168) appears in a list where the preceding line contains the entry paršul-za 'crumb', with -za. With the possible exception of ${ }^{\text {GIš̌ }} t \bar{a} r u$ 'wood' (KBo XXIX 6 Vo i2), the other $u$-stem nom.-acc. sg. forms cited in CLL (ziyadu(-ša) 'ladle', ${ }^{\mathrm{GAD}}$ alalu(-sa) [meaning unknown]), are only attested in Hittite contexts. Nom.-acc. sg. w $\bar{\alpha} s{ }_{s}{ }^{\prime}$ ' good', though occasionally substantivized, is basically an adjective (cf. note 20).
    ${ }^{19}$ The absence of scriptio plena is notable. The line is fragmentary; initial $[t] a-i n-z a=p a=w a$ (boundary marking after Melchert) is followed by duwasa.

[^5]:    ${ }^{20}$ The frequency of adjectival stems, including participles and possessive adjectives, makes this an appropriate place to emphasize that only nouns proper seem to have selected for $-5 a /-z a$ independently; adjectives show an apparent tendency, as yet unstudied, to "agree" with the noun they modify.
    ${ }^{21}$ Beside which must be ranged one instance of $u$-tar-ba (KUB XXXV ior Ro 7), with -ba 'and' standing in the position that might have been occupied by -sa.
    ${ }^{22}$ It is impossible to know whether the hapax ikkuwa[r] 'anointing'(?) (KUB XXXV 72 iii 8 ), which is broken off before the end of the word, was followed by -sa.
    ${ }^{23}$ On the assumption that $C L L$ is correct in separating this word from the corresponding adjective (cf. $a t-t u[-w a-] a l-z a u ́-t a r-s \breve{c}_{a}^{\prime}$ 'evil spell' (KUB XXXV 54 ii 38$)$ ).

[^6]:    ${ }^{24}$ With the exception of tain-za; cf. above.
    ${ }^{25}$ With the exception of parnan; cf. above.
    ${ }^{26}$ With the exception of triyllabic hupallis-s $\check{{ }^{2}}$; cf. above.
    ${ }^{27}$ Here too belongs the hapax $z \bar{a} r-z a$ 'heart' (stem $\left.z \bar{a} r t-\right)$, remarkable for preserving the historically correct suffix form $-z a$ after $-t$ - (contrast -ahi-s $\boldsymbol{z} a$ for expected $*-a b i z(z) a<*-a b i t-$ sa , etc.).

[^7]:    ${ }^{28}$ The absence of the $*_{s o-} / *_{t o}$ - pronoun was one of the original arguments for the Indo-Hittite theory; according to Sturtevant (1939), ${ }^{*} s o-/ * t o$ - was created within Indo-European proper after the separation of Anatolian from Indo-European proper.
    ${ }^{29}$ Partial generalization of $*_{s-}$ at the expense of $*_{t}$, or of $*_{t-}$ at the expense of $*_{s-}$, is found in many IE languages. But the nom.-acc. sg. *tod was a remarkably robust form, with reflexes or modified reflexes in most branches of the family. Celtic, where *so- has become the all-purpose demonstrative stem, is the only pre-medieval branch in which it would be safe to posit a neuter form of the type ${ }^{\text {sso }}(d)$.

[^8]:    ${ }^{30}$ Here and below, schematic examples are used to illustrate Hittite and Luvian constructions.
    ${ }^{31}$ attas would also, of course, have been substituted for the overextended *attas ${ }^{2}=\operatorname{sic}_{i s}$ in contexts where there was no possessor at all. Note that the split genitive is typologically comparable to clitic doubling in other languages: the stressed element renews and reinforces an insufficiently salient clitic. An actual example of the construction with a first person possessor is [a]mmell=a lāmān=mit' (and) my name' (KUB I 16 iii 13), cited by Hoffner and Melchert (2008:ibid.).
    ${ }^{32} \mathrm{Or}$ alternatively, spread by diffusion as an areal feature.
    ${ }^{33} \mathrm{~A}$ case for the survival of the possessive suffixes in Cuneiform Luvian has been made by Carruba (1986), based on the passage KBo XIII 260 ii I-4 (text after CLC):

[^9]:    ${ }^{34}$ The extension of the genitive adjective construction was only partial in Hieroglyphic Luvian, where the inherited genitive case is still preserved.
    ${ }^{35}$ "Replacement" would have consisted in the gradual extension of the marked POSSESSOR + POSSESSED noun word order, where the possessor could be stressed for emphasis, into the domain of the unemphatic clitic construction, where the possessor was unstressable.
    ${ }^{36}$ This was, of course, the very ambiguity that had earlier given rise to the split genitive at the ProtoAnatolian(?) stage.
    ${ }^{37}$ To be sure, there would still have been agreement in the oblique cases (e.g., dat.-loc. *buāssi=ssi), from which speakers could have inferred the correct analysis. But such evidence would not have been salient, and speakers could easily have overridden it.

[^10]:    ${ }^{38}$ This scenario assumes, in keeping with a conservative reading of the evidence, that the loss of the possessive clitics as a living category was a Proto-Luvian development. Since there is residual doubt on this score, however (cf. n. 33), it should be emphasized that the key restructuring event-the reinterpretation of * $\bar{\alpha} \bar{s}(s)=\Sigma s a$, etc. as unmarked nom.-acc. forms with an obligatory but meaningless "case" suffix-could have taken place even if *-siš, *-san, *-sa, etc. had retained their full possessive value with nouns of the noninalienable type.
    ${ }^{39}$ Another $s$-stem body part, though only attested as a Luvianism, is bappiš-s $s a$ 'limb, member'. The absence of -sa in bupallis 'scalp' or 'cranium' is, as suggested above, probably a secondary effect of the length of the form.
    ${ }^{40}$ Another $r(/ n)$-stem body part, though attested only as a Luvianism, is sawatar-ša 'horn'. Garrett (1998:I6I) discusses a passage in which Hitt. uttār ("'words > matter > plight'"), the cognate of Luv. utar-ša, displays split genitive behavior.
    ${ }^{41}$ parnan-za, to the extent it could mean 'home' as well as 'house', would possibly be countable as another "inalienable" $a$-stem.
    ${ }^{42}$ No counterpart of $-s a /-z a$, so far as I am aware, has ever turned up in Lycian or any of the other "Luvoid" languages. If there is anything to discover here, the odds are high that the discoverer will be Craig Melchert.

