

## The Origin of the *-l* Genitive and the History of the Stems in *-īl-* and *-ūl-* in Hittite

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Because none of the explanations for the Hittite genitive in *-ēl* so far offered has withstood close scrutiny, this paper proposes a new account in which the morpheme goes back to the stem-final vowel *\*-é-* of pronominal stems plus an adjectival *\*-lo-* suffix (i.e. *\*-é-lo-*). The development of PIE *\*-los/m#* to Hitt. *-l#* was conditioned by the accent on the immediately preceding syllable, which is where the evidence of scriptio plena shows it to have been. This resulted in several endless case forms, which were reinterpreted as genitives. The same sound law affected stems in *\*-ī-lo-* and *\*-ū-lo-* as well, leading to the development of the Hittite stems in *-īl-* and *-ūl-*, which, as a consequence, no longer demand the reconstruction of heteroclitic *\*-l/-n-* stems.

1. The Hitt. *-l* genitive occurs both in various pronominal paradigms and in the numerals 'one' and 'two'. We regularly find such forms as *ammēl* 'of me, my', *kuēl* 'of which, whose', *kēl* 'of this here' or *l-ēl* 'of a single one', where the ending *-l* is attached to the stem in *-ē-* that appears in most oblique case forms. The demonstrative pronoun *kā-* 'this one here', for instance, has an oblique stem form *kē-* that figures not only in the gen.sg. *kēl*, but also in the dat.-loc.sg. *kēdani*, loc.sg. *kēdi*, abl. *kēz*, instr. *kēdand(a)*, gen.pl. *kenzan*, and dat.-loc.pl. *kēdaš*.
2. The origin of this ending has been debated ever since linguistic research on Hittite began about ninety years ago. Practically every *\*-l-* known from the inflectional or derivational morphology of Proto-Indo-European and its daughter languages has been compared with the Hitt. *-l* genitive. Unfortunately, most of the analyses that have been proposed are either very imprecise or, because of our steadily improving understanding of Hittite historical morphology, out of date.

One of the first suggestions regarding the origin of the Hittite pronominal genitive in *-ēl* (as it was analyzed at the time) was that of Kretschmer (1932:90-92), who supposed that *-ēl* was an originally ethnic suffix borrowed from Hattic. Kretschmer was followed by Sommer (1947:86-88), Kronasser (1956:142), Lazzeroni (1960:120), Puhvel (1966:238), and Kammenhuber (1969:270-71). The transfer of Hattic *-el* to the Hittite pronominal system was assumed to have taken place in the context of proprietary dealings, where the Hittite forms *ammēl* 'of me' and *tuēl* 'of you' were used in contrast with Hattic expressions like *arinna-el* 'of Arinna'. This explanation was in line with a widespread early assumption that every linguistic phenomenon in Hittite that is not obviously Indo-European comes from a Hattic substrate. But that explanation is less than convincing since it has emerged in the past decades that the linguistic impact of Hattic on Hittite does not go beyond limited lexical borrowing (see most recently Melchert 2003:15-21).<sup>1</sup>

Sturtevant (1933:203, 205; Sturtevant and Hahn 1951:111), connected *-ēl* with *-l*-suffixes of originally adjectival function, as seen in Lat. *similis* 'like, resembling', *humilis* 'low, small, slight' and others and in Hitt. *-āla-* used in agent nouns and *-ili-* deriving adjectives and adverbs. The morphological comparison of genitives and adjectives of appurtenance is certainly very attractive, but the details of how this is supposed to work were never elucidated.

Pedersen (1938:54-55) assumed that, within the pronominal paradigm, athematic *l*-stem possessive adjectives were formed in order to avoid a formal identity of nominative and genitive both in *-aš*. As a second step, the adjective in *-l* lost its inflexion and the lengthened *ē*-grade nominative singular became a fixed form of *kēl* 'of this here', for instance, as opposed to nominative *kāš* 'this one here'. In other Indo-European languages, *-l* was extended as *-li-* or *-liko-* and figures both in dimensional adjectives, such as Lat. *tālis* 'such', Gk. *τηλίκος* 'so old', OCS *tolъ* 'so much', *tolikъ* 'so big' etc., and in the Latin adjectives of the *similis* type. Apart from the fact that there is no compelling evidence whatsoever for athematic *-l*- adjectives with hysterokinetic inflexion, we certainly do not expect them to have pronominal stems as their bases. In addition, the assumed identity of nominative and genitive is easily tolerated in nouns and adjectives in Hittite.

<sup>1</sup>The attempt of Nemirovski (*apud* Schmidt 1968:238) to connect Hittite *-ēl* with Hattic, Etruscan, and Caucasian material may be mentioned here for the sake of completeness.

Van Brock (1962:144-145) proposed a similar solution starting from neuter athematic abstracts in *-ēl* which, at the time, she claimed to find in Hitt. *šuēl* 'thread' and *hurkēl* 'crime, sin' (*sic!*). According to her, *ammēl* was first used as a predicate meaning 'is the my-ness, is my property, is mine' and was then transferred for use as an attributive, getting the function of adjectival 'my'. While this is a serious possibility as regards the syntactic change, the derivational history is highly problematic, since there are no abstracts in *-ēl* attested in Hittite. The forms said to exemplify *-ēl* show consistent *-il* in Old and Middle Hittite. It was only in Neo-Hittite texts that *-il* was changed to *-iel* in auslaut in the nominative-accusative (cf. Rieken 1999:473-75).

The starting point for Benveniste (1962:67-68) was an adverbial morpheme *\*-l* that was specifically used in predicate position, expressing states of appurtenance, quality and quantity. Later it underwent functional differentiation, becoming inflexional in Hittite and derivational elsewhere. The contrasting developments in the daughter languages are explained by an early separation of Anatolian from the language family. Again, this approach is entirely *ad hoc*, because the original function of the morpheme is supposed to have been the exceptional marking of the predicate use of one single case while forms of other cases are not morphologically changed when being used predicatively. It would be possible to compare any two homophonous morphological elements with different functions in the daughter languages by postulating an arbitrary morphosyntactic distinction of this kind.

An underlying PIE locative adverb *\*-l*, which is also to be found in Lyc. *ebeli* 'here' and Gk. *τῆλε* 'far away', was advocated by Josephson (1966:139, 146, 149-50, 152-54). In predicate position, the local meaning was said, first, to have developed a qualitative and, ultimately, a possessive value. Adjectives formed by means of thematization with either *\*-o-* or *\*-i-* constituted the source of the Hittite adjectives in *-alla-*, adverbs in *-ili*, Lyd. *bili-* 'his, her', Lat. *tālis* 'such', the Latin *similis* type, and the Hittite suffix *-ila* 'self'. The pronoun *\*el-/ol-* is also supposed to be cognate. Leaving aside for the moment the extensive historical connections postulated for this adverb, it is, in general, easily conceivable that pronominal forms with a locative meaning such as 'here with me' could be used as attributives or predicates and then be reinterpreted as possessive markers: 'x here with me' is understood as 'x belonging to me, x of me, my x'. They can thus be integrated into the

paradigm as genitives. Unfortunately, the evidence for such a morpheme is extremely weak, and in no case is a locative adverb *\*-el* or ending *\*-l* the only plausible explanation. In each instance the underlying element is a suffix *\*-elo-*, which allows for an analysis either as *\*-el-o-* or as *\*-e-lo-*. For a recent attempt to reconstruct such a morpheme see Peters (1997[2002]:108-09. I am grateful to Sergio Neri for the reference). If we wanted to start from a local particle *\*el*, parallel to *\*en*, the scarce attestation of such an item would require that it be very archaic and highly unproductive, both of which make it unlikely that such an *\*el* would develop into a specifically pronominal ending of a grammatical case that can synchronically be easily parsed.

Very much the same can be said about the reconstructions by Schmidt (1968:232-39), Oettinger (1999), and Hamp (1982, reference kindly provided by Alexis Manaster Ramer) of an appurtenance particle or genitive ending *\*-l* for Proto-Indo-European. According to Schmidt and Oettinger, it is attested in its athematic form only in the Hitt. *-l* genitive and in PGrm. *\*se-l-ba-* 'himself' < *\*se-l-b<sup>h</sup>o-*, built on the reflexive pronoun and parallel to the familiar forms *\*se-b<sup>h</sup>o-*, *\*swe-b<sup>h</sup>o-* etc. Hamp, on the other hand, sees a reflex of the genitive ending *-l* in Hitt. *-l*, Lyd. *bili-*, *bil*, and Gk. φίλος. But it is a well-known fact that the reconstruction of rare athematic suffixes on the basis of derivatives is methodologically problematic. Alternative explanations such as the contamination of the forms *\*se-b<sup>h</sup>o-* and *\*se-lo-* or an originally thematic derivative *\*b<sup>h</sup>i-lo-* have to be excluded first.

Georgiev (1970), Carruba (1975:134), and Szemerényi (1979:197) suggested that the genitive of the first person singular pronoun in Proto-Indo-European *\*(e)mene* was dissimilated to *\*(e)mele* and apocopated. The resulting ending *-ēl* was then transferred to all other pronominal stems. While a change of *\*l* < *n*, however, is attested in initial position in *lāman* < *\*H<sub>1</sub>neH<sub>3</sub>-men*, *-mVn-* seems to be stable in internal position, as can be seen from *men*-stems of various ablaut types (cf. Melchert 1994:171).

Swiggers (1985) reconstructed a deictic element *\*-ēl* attached to pronouns in order to "mark a relationship with the person referred to by the pronoun." The deictic element figures in other languages as the well-known pronominal stem *\*el-/ol-* seen for instance in Lat. *ille* 'that, yon'. (also Shields 1983). The formal side of this comparison is extremely vague and is semantically unsatisfactory as well.

The inner-Anatolian connections proposed are not really helpful. According to Eichner (1992:38), Hitt. *-ila* 'self', in *apāšila* 'he himself, she herself', for instance, is based on the genitival ending of the pronouns in adverbial function. But this, of course, does not explain the genitive itself. Moreover, the comparison cannot be upheld because of the formal difference between *-ēl* and *-ila*. The diachronic interpretations of the Lycian pronominal adverbs *ebeli* 'here' and *teli* 'where', of the Lydian possessive adjective *bili-* 'his, her' and its endingless form *bil*, and of the Lydian dative-locative ending *-λ*, which are adduced by Pedersen (1945:19-20), Kronasser (1962-1966:361-63), Heubeck (1959:68-70), Carruba (1969:44-49), Josephson (1966), Melchert (1994:342) and others, largely depend on the account of the Hittite forms. The historical explanation has typically led to circularity.

3. In contrast to the accounts of the Hittite pronominal genitive in *-l* listed above, the one that is presented in the remainder of this article has the advantage of being very simple, based as it is on the assumption of a single sound change to which the Hittite material immediately lends itself. The starting point is provided by the Hittite pronominal stems in *-ē-* that are the basis for the oblique case forms. They are supposed to be derived by the productive thematic *-la-* < *\*-lo-*, forming adjectives of appurtenance, e.g. *ūk* 'I' with its oblique stem *ammē-* 'me' as the basis of an adjective *\*ammēla-* 'belonging to me'. Analogously, the demonstrative pronoun *kā-* 'this one here', with its oblique stem *kē-*, gives the derivative *\*kēla-* 'belonging to this one here'.<sup>2</sup> The stress must have been on the long stem vowel *ē*, as indicated by the plene writing.<sup>3</sup> The next step was a reduction of the final syllable by syncope of the

<sup>2</sup> The function of the *\*-lo-* suffix and its extensions (*\*-V-lo-*) as formants of denominative adjectives of appurtenance is well-attested in Anatolian, e.g. by the suffix *-alla/i-* < *\*-ē-lo-* in Luwian with the original broad function and by the Hittite agent nouns in *-āla-* < *\*-ō-lo-* (<sup>LU</sup>*karimn-āla-* 'temple attendant' from '(person) belonging to the temple'). Alan Nussbaum (personal communication) reminds me that it is probably also underlying in the diminutives known from several other Indo-European languages (for examples see Brugmann 1906:668-70).

<sup>3</sup> In general, the position of stress can be recovered by the scriptio plena, which is especially common in Old Hittite texts. It is widely agreed that in Hittite, plene writings such as <*pé-e-ra-an*> or <*še-e-er*> indicate long vowels. This length has either been preserved under the accent or it has arisen in this position secondarily. Therefore, we find a strong correlation between plene writing and accented syllable (see Melchert 1994:27 and Kimball 1999:54-64 with further references).

vowel, and then simplification of the resulting auslaut cluster: *\*ammēlas* developed to *\*ammēls*, whence *\*ammēl*. The conditions for the reduction were (1) the stress on the penultimate syllable containing a front vowel and (2) the shape, *\*-las* or *\*-lan*, of the final syllable. It is probably of some importance that the place of articulation (alveolar) was the same for syllable-initial *\*l* and final *\*s* or *\*n*. After the complete loss of the auslaut in a syntagma consisting of the pronominal adjective and a head noun, the pronominal form would end in *-ēl* in five out of twelve case forms, among them cases as important as the nominative, accusative, and genitive singular:

nom.sg. (< *\*apēlas*)

acc.sg. (< *\*apēlan*)

gen.sg. (< *\*apēlas*)

gen.pl. (< *\*apēlan*)

dat.-loc.-all.pl. (< *\*apēlas*)

A syntagma like *\*ammēlas attas* ‘the father belonging to me’ would have become *ammēl attas̃*. Here, *ammēl* could easily be reinterpreted as a genitive, especially in a language like Hittite where the nouns preserved a productive genitive construction. The new “genitive in *-ē-l*” spread to the first person plural *anzēl* and to the numerals *šiēl* ‘of one’ and *2-ēl* ‘of two’, which are known to be treated like pronouns in other languages as well.

4. The suggestion that final syllables are lost at all in lexical items in the Anatolian languages is quite a recent one. Since such a sound change is crucial to the scenario sketched above as an account of the *-l-* genitive, a few remarks are in order on what has been so far proposed along these lines and what has largely been accepted.

The first step in the right direction was taken by Starke (1990:346-432). He recognized that the Luwian suffixes *-ar-*, *-ššar-*, *-ttar-*, and *-ntar-* go back to the Common Anatolian thematic suffixes *\*-ro-*, *\*-sro-*, *\*-tro-*, and *\*-ntro-*, respectively (see also Melchert 1994:272 for *-štar-* < *\*-sro-*). But Starke viewed the change as a morphological process in which the neuter nominative-accusative singular was dethematized, probably in order to mark it as a neuter.

Three years later, Melchert (1993) was the first to realize that the loss of the thematic ending is the result of a phonological process. He suggested a sound change *\*-Crom* > *\*-Corm* > *\*-Cor* > *-Car* for both Luwian and Hittite. Corresponding changes would have occurred in

\*-Cros and \*-Clos/m as well. Large-scale analogical leveling obviously led to the restoration of the endings in many cases. But animate stems in -ar- like Hitt. *ḫuppar-* 'bowl' and *išpantuzziyaššar-* 'libation vessel'—with the suffixes \*-ro- and \*-sro-, respectively—clearly show that the development did, in fact, take place.

About the same time, Oettinger (1993) tried to explain the synchronically attested fluctuation of the stem final between -*VI*- and -*VI(l)i*- in certain neuter nouns by apocope of final -*i*. The loss of the final syllable occurs exclusively in the nom.-acc.sg. in about half the attestations, cf. nom.-acc.sg. *kurtāl*, <sup>GIS</sup>*kurtāli* beside nom.-acc.pl. <sup>GIS/GI</sup>*kurtalli* (a basket *vel sim.*). Oettinger accounted for the different behavior of the singular and plural forms by divergent accent patterns. He assumed that the singular had an initial stress causing the apocope, while the plural had a contrasting final accent under which the syllable was kept: sg. \**ˈVI* > \**ˈVI* or \**ˈVI* vs. pl. -*VII* > -*VII*. The problem with this explanation lies in the fact that the plene writings, where attested, indicate that the stress is on the penultimate syllable in the singular forms. The word is then spelled <*kur-ta-a-al*> and <<sup>GIS</sup>*kur-ta-a-li*> (for references see Rieken 1999:434). To account for this, Oettinger postulated a secondary accent shift for such cases, but this is not corroborated by the evidence. Since, however, a phonological explanation of the phenomenon is very probable, a more economical solution to the problem can be achieved by way of the assumption that it was the original stress of the immediately preceding syllable that conditioned the loss of the following final vowel.<sup>4</sup>

<sup>4</sup> My own earlier account (Rieken 1994) explained the loss of final -*i* in the neuter stems in -*VI* by a morphological process, assuming that the Hittites tried to imitate the Luwian pattern of the *i*-mutation (nom.sg.c. -*iliš*, acc.sg.c. -*ilin*, nom.-acc.sg.n. -*il*, oblique stem -*ila-*) in their own language. This pattern was transferred to Hittite neuter forms by dropping final -*i* in the neuter nominative-accusative singular. But this happened only very sporadically and in adjectives only, where common gender forms in -*iliš* and -*ilin* existed and made the analogy possible. It could not, however, apply to neuter nouns, where there was no contrast with common gender forms with -*i*. In favor of the new explanation suggested here, the fact may be adduced that stem final -*i* is never lost in the oblique case forms of these neuters, although this would be the expected result of the morphological process that I previously suggested.

The adverbs in -*ili* could not be affected by any of these changes—either morphological or phonological—because they were no longer part of the paradigm and, being instrumentals in \*-*i-H*, of abstract -*i*- stems built on \*-*lo*- adjectives, were probably accented on the final -*i* in the first instance (see Widmer 2005:202-03).

A few years after this, Melchert (2001) discovered more cases of apocope. He drew attention to the fact that *šarnikzil-* ‘restitution’, clearly derived from the characterized verbal stem *šarni(n)k-* ‘to make restitution’, is not a neuter noun, but an animate noun. In most previous analyses, including my own (Rieken 1999:476-77), the suffix *-zil-* had been regarded as a composite suffix to be analyzed as the well-known abstract suffix *\*-ti-* plus hysterokinetic *\*-el-/l-*. Melchert argued that this hypothesis failed both because of the animate gender of the noun and, more seriously, because of the consistent *-i-* vocalism of the suffix in Old and Middle Hittite manuscripts. His new and much more convincing account of *-zzil-* is that it goes back to a combination of the abstract suffix *\*-ti-* just mentioned and adjectival *\*-lo-*: *\*-ti-* plus *\*-lo-* → *\*-zila-* > *-zil-*. Starting from verb *šarni(n)k-* ‘to make restitution’, an abstract noun *\*sarnikzi-* ‘restitution’ was derived, which in turn was the basis for an adjective *\*šarnikzila-* ‘belonging to restitution’. The adjective was substantivized and substituted for its base. As a last step, the final syllable was lost and the stem became consonantal, synchronically speaking.

According to Melchert, the same process may apply to *tayazzil-* ‘theft’, abstract of the verb *taye-/taya-* ‘steal’, since it contains the same derivational morphemes. Its gender, however, is unknown. Hittite *alil-* ‘flower’, on the other hand, a so-called *wanderwort*, is an animate noun and, for this reason, may be placed here too (< *\*alila-*). To this list Melchert also adds stems in *-il-* which, in his view, have lost their stem vowel *-i-* together with the endings, e.g. <sup>TU7</sup>*hapalzil-* (a stew or soup) < *\*hapalzilis*. In case of *hurkil-* ‘failure’ and *šuwil-* ‘thread’; however, he retains the hysterokinetic *l*-stem reconstruction because of the “primary look” of these words. Still other cases, such as *huššil(i)-* ‘pit’ and *dammil(i)-* ‘fresh, untouched’ are explained as a result of the attempt to imitate the Luwian *i*-mutation, which prompts endingless neuter forms in the nominative-accusative singular.

Melchert identifies pre-penultimate stress as the conditioning factor for the apocope: *\*sarnikzilas* > *šarnikzil*. Accordingly, we would expect the stems in *-il-* to show plene writings in pre-penultimate syllables. But Melchert’s own survey of all examples originally containing the final sequences *\*-VrVs/n* and *\*-VIVs/n* produced a different result, which he himself describes in the following way:



I believe it is fair to characterize the evidence of scriptio plena for accent placement in the relevant stems as mixed. My proposed apocope rule is possible, but hardly supported. (Melchert 2001:270)

6. In fact, close scrutiny shows that the proposed apocope rule is contradicted by the evidence precisely for the *-il-* stems, which are of crucial importance for the question. All attested forms with final *<-i-il>* are listed below:

*<šar-ni-ik-zi-i-il>* 'restitution' KBo 6.3 III 50

*<hur-ki-i-il>* 'failure' KBo 46.17 II 5<sup>7</sup>

*<<sup>(SIG)</sup>šu-ú-i-il>* 'thread' KUB 112.51+ I 8', KUB 55.49 obv. 11, KUB 7.3, 7', 13'

*<pa-aš-šu-i-il>* (a substance in food and drink) KBo 13.101 I 15

*<(KUŠ (UDU)) iš-ḫar-ú-i-il / e-eš-ḫar-ú-i-il>* 'blood-red' KUB 55.20++ II 5, KBo 24.42 III 11', KBo 23.16 r. col. 4', KUB 7.13 I 14', 25', KBo 35.115 Vs.<sup>7</sup> 14', Bo 5969 I 3

In *tayazzil-* 'theft', no plene writing occurs at all, but because of its obviously parallel stem formation, the word must belong here too. The second plene writing in the first syllable of *<e-eš-ḫar-ú-i-il>* 'blood-red', occurring side by side with the equally well attested *<iš-ḫar-ú-i-il>*, is clearly due to the analogical influence of its base word *<e-eš-ḫar>* 'blood'.

Thirteen other stems which are either loanwords or of unknown origin show no relevant cases of scriptio plena: <sup>GIS</sup>*halputiel* 'stool', <sup>LÚ</sup>*tazel* (a priest), <sup>TU7</sup>*hurut(t)il-* (kind of food), <sup>(TU7)</sup>*ḫapalzir-* (kind of food), <sup>GIS</sup>*dammašḫuel* (a fruit tree), *zinail* (kind of food), <sup>NINDA</sup>*zippil* (a cake), *alil-* 'flower', <sup>GIS</sup>*ḫilaššumil-* '?', <sup>GIS</sup>*ḫatramiel* (a fruit), <sup>GIS</sup>*parmil* '?', <sup>GIS</sup>*šušiyaz(za)kil-*, <sup>KUŠ</sup>*gazzimuel* '?'.<sup>5</sup>

<sup>5</sup> In the lists just given, instances of plene writing are not counted where final *-il* developed into *-iel* in Neo-Hittite and where the additional vowel sign might have been used to indicate the diphthong more distinctly: *<šu-ú-i-el>*, *<šu-ú-e-el>*, *<pa-aš-šu-i-el>*, *<<sup>TU7</sup>ḫu-ru-ti-i-el>*, and *<ḫa-pal-zi-e-er>* with dissimilation. For the same reason, the spelling of the diphthong in *zi-na-a-il* (some kind of food), which seems to be a Hattic loan word anyway, is not relevant for present purposes. Instances of scriptio plena with the sign *<U>*, i.e. *<ḫu-u-ur-ki-il>* and *<<sup>TU7</sup>ḫu-u-ru-ti-i-el>*, are not considered either, since that writing is used not to indicate an accented vowel, but to spell an allophone [o]. This arose from /u/ under certain conditions, especially before and after /h/ and before /r/.

Taken together, the evidence is as follows: There are nineteen stems in *-il* in the nominative or accusative singular. Five of them have a clear etymology. Four of these plus another one without etymology show relevant plene writings. In every one of these cases the additional vowel sign is located in the synchronically final syllable, while there are no relevant plene writings attested in other syllables. As a consequence, it is very probable that the conditioning factor for the loss of the final syllable of stems in *\*-ilas/n* is an accented penultimate syllable:

*\*-ilas/-ilan > \*-ils/-iln > -il*

At first sight, such a rule might seem less plausible than the assumption that the stressed syllable was at a greater distance from the reduced final syllable. But the proposed development is exactly what is seen in Welsh, where the stress is assumed to have been fixed on the penultimate syllable and to have caused the loss of the final one, leaving words with final stress (though one may compare Schrijver 1995:16-22 for a critical review of this assumption). Moreover, the hypothesis can be tested. If the rule given is correct, we should not find Hittite stems in *-ila-* with scriptio plena in an originally penultimate syllable. In fact, the result of surveying all 33 Hittite stems in *-ila-* is that, with very few exceptions that are dealt with below, they show no instance at all of a plene writing of the suffix.

The only serious exception is constituted by the disyllabic stems *hīla-* ‘yard’ and *zīla-* ‘future.’ This does require exempting disyllables from the operation of this rule, doubtless because monosyllabic outcomes of the loss of final *\*-as* and *\*-an* were disfavored. The other exceptions are only apparent. They all involve the spelling with <E>:

<*iš-pa-an-tu-zi-e-la-aš*> ‘libation-bearer’ KUB 14.11 IV 9’

instead of *išpantuzziyalaš* where we really see a sporadic development of /-iya-/ > /-ie-/,

<*ha-zi-e-la-aš*> ‘of a handful’ KBo 5.2 I 14 instead of <*ha-zi-la-aš*> (in more than a hundred instances) with a sporadic lowering of /il/ > /el/,

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This view is supported by spellings where the syllable that is actually accented shows a second plene writing, e.g. <*hu-u-ma-an-da-a-aš*>, <*me-e-hu-u-n°*>, <*a-ar-hu-u-un*>, <*ep-pu-u-un*>, <*ku-u-un-du-u-ra-iz-zi*>, and <*ku-u-ru-ur*> beside <*ku-ru-u-r°*> (for details see Rieken 2005).

<<sup>NINDA</sup>ma-aḥ-ḥu-e-el-la-an> (a bread) KBo 13.62 obv. 9 beside  
 <<sup>NINDA</sup>ma-aḥ-ḥu-i-la-aš> KUB 35.70 III 5 involving the  
 recognition of two different suffixes by the Hittite scribe,  
 and <<sup>GIS</sup>mu-ú-i-la-> 'spade' (vel sim.): late NH nom.sg. <<sup>GIS</sup>mu-  
 ú-i-il> KUB 42.97, 2'.

The last one is a common gender noun that occurs once in its  
 athematic form in a very late text. The form can neither have resulted  
 from the rule established above (which operated prehistorically and had  
 not been productive for centuries) nor can it be due to an exceptional,  
 phonologically conditioned process. Instead, one may plausibly suppose  
 that the scribe misanalyzed the word as belonging to the *-il-* stems, which  
 are transparently stressed on the *-i-* vowel.<sup>6</sup> The essential result is that in  
 all relevant forms the stems in *-il-* correlate with scriptio plena of <I>,  
 while the stems in *-ila-* consistently lack it.

7. As regards the reconstruction of stems in *\*-ila-* with final-syllable  
 reduction as the source of the Hitt. *-il-* stems, this investigation turns out  
 to enhance the plausibility of Melchert's proposal. It is claimed here,  
 however, that the conditioning factor is the **penultimate stress in words  
 of at least three syllables**. In addition, the rule has to be restricted to the  
 sequences *\*-ilas* and *\*-ilan*. Another point of difference concerns the  
 reconstruction of the preforms of *šuwil-* 'thread' and *hurkil-* 'failure'.  
 The most straightforward way to account for these two is to make them  
 ultimate derivatives of *i*-stem abstracts, i.e. *šuwil-* 'thread' <*\*sowH<sub>1</sub>-i-*  
*lo-* 'that which belongs to the process of sewing' <*\*sowH<sub>1</sub>-i-/sewH<sub>1</sub>-i-*  
*'sewing'* and *hurkil-* 'failure' <*\*H<sub>2</sub>urġ<sup>h</sup>-i-lo-* 'that which belongs to the  
 process of turning and twisting' <*\*H<sub>2</sub>worġ<sup>h</sup>-i-/H<sub>2</sub>urġ<sup>h</sup>-i-* 'turning,  
 twisting'.

The attested meanings as instrument noun 'thread' and as result noun  
 'failure', respectively, can be easily derived from the adjectives of  
 appurtenance. In case of *hurkil-*, we even have the base word *\*H<sub>2</sub>worġ<sup>h</sup>-*  
*i-/H<sub>2</sub>urġ<sup>h</sup>-i-* 'turning, twisting' in Hittite, which is attested as *hurki-*

<sup>6</sup> The same phenomenon can perhaps be observed in the *-i-* stem *ḥuššili-* 'pit, dump',  
 which not only shows sporadic variants with divergent suffixes like <*ḥu-u-uš-ši-el-li-ya-*  
*az*> in KBo 6.11(+) I 18' (OH/NS) and <*ḥu-uš-šu-ul-li*>, e.g. in KBo 24.57 I 8, but also  
 <*ḥu-uš-ši-i-il*> in KUB 35.146 II 3 (NS).

'wheel' (cf. also Puhvel 1991:401-02).<sup>7</sup> In the case of *išharwīl-* a derivational chain *ēšhar-* 'blood' → *\*išhar-wā-* 'bloody, blood-red' → *\*išhar-w-ī-* 'blood-red-ness' → *\*išhar-w-ī-la-* 'blood-red-ness-like' > *išharwīl-* is to be assumed. Alternatively, a complex suffix *\*-ila-* may be considered, which presupposes a corresponding derivational chain adjective *\*-a-* → abstract *\*-ī-* → adjective *-ī-la-* in other words. About *par/hššūil-* (a substance in food and drink) little can be said due to the lack of an etymology, but a similar account is possible.

8. Building on the conclusion that the rule *\*-ilas/-ılan* > *\*-ils/-iln* > *-il* explains both the attested plene writings in the *-il-* stems and their stem-final *-l*, an account of the genitive in *-ē-l* can now be attempted. If a similar rule *\*-é-la-s/-é-la-n* > *\*-éls/-éln* > *-ēl* (also showing front vowel plus // before the lost syllable) was valid in Pre-Hittite, *ammēl* can be explained as the regular outcome of an adjective of appurtenance *\*ammé-la-s/\*ammé-la-n* 'belonging to me'. The same account can be given of other pronouns like *apēl* etc. Monosyllabic *kēl* 'of this one here' can, of course, be easily explained by analogy.

This sound change, however, is distinct from the apocope of final *-i*, claimed by Oettinger (1993) and accepted here, in *kurtāl*/<sup>GIS</sup>*kurtāli* and other neuter stems in *-Ūl(i)*. The latter development starts in Middle Hittite and proceeds until the end of the empire. It may be noted that it is the penultimate syllable here too that is stressed, which leads to the loss of the final syllable. Such repeated applications of various reduction rules in final syllables are typical of languages with a stress accent and are known from Latin (Meiser 1998:73-74), for example. Latin, in fact,

<sup>7</sup> The earlier solution, suggested by Eichner (1973:85, fn.6), was to reconstruct a neuter *\*-el-* stem, which, in terms of PIE accent and ablaut patterns, is equivalent to a hysterokinetic *-l/-n-* stem. If this were correct, the stem suffix would have gone through various processes: nom.-acc. *\*-él*, gen. *\*-n-és* 'crookedness' → nom.-acc. *\*-él*, gen. *\*-el-és* → nom.-acc. *\*-él*, gen. *\*-il-ós* → nom.-acc. *\*-il*, gen. *\*-il-ás*. If Melchert's claim (1994:131-33) that *\*/i/* and *\*/u/* are not lengthened under the accent in closed syllables is correct, then this is further evidence for the reconstruction of a following final syllable in the nom.-acc.sg. in *-il*, since the assumption of a transfer of *-il-* from the oblique cases through paradigmatic leveling would require another two steps. This complicated history, involving an extremely rare suffix, is even less credible for a language like Hittite with productive heteroclititic inflexional patterns. Accordingly, the derivation of the Luwian neuter instrument nouns in *-al* from PIE hysterokinetic *-l-* stems (Starke 1990:301) should also be abandoned. Thematic neuters in *\*-olom* are a much more plausible alternative starting point.

shows the same sequence. There is first the syncope of the thematic vowel in stems with nominatives in *\*-ras* followed by the simplification of the resulting auslaut cluster, as in *ager* < *\*agros* (< *\*H<sub>2</sub>eĝros*). Later comes the apocope of *\*-i*, as in *animal*. In addition, the conditioning in this case shows that the quality of the syncopated vowel (*\*-i-* and *\*-o-*) and the place of articulation of the flanking consonants (both alveolar) are relevant factors.

9. Lydian *bili-* 'his, her' and Lyc. *ebeli* 'here' have very often been considered to contain morphemes that are inner-Anatolian cognates of the Hittite genitive in *-ē-l*. The former is clearly derived from the attested pronoun *bi-* 'he, she' that corresponds to Hitt. and Luw. *apā-* and Lyc. *ebe-* 'that one (with you)'. But its mutation *-i-* has apparently become part of the stem, so that it also appears in the derivative *bili-* (differently Hamp 1982). Since this phenomenon is best thought of as belonging to a rather late layer in the history of Lydian, it is to be concluded that *bili-* is an independent recent formation.

Lycian *ebeli* 'here', however, is the exact equivalent of the Hittite locative of the adjective *\*apela-* 'belonging to that one (with you), his', i.e. of *\*apeli* 'in his'. The form, marked doubly with both an adjectival suffix and a case ending, is used instead of the morphologically expected form *ebi*, which has been grammaticalized as a coordinating conjunction 'or'. This phenomenon has its typological parallels in English expressions like *at Peter's* or *of mine*. Analogously, Lat. *meī*, the genitive of the 1<sup>st</sup> person singular pronoun, is really the genitive of the possessive pronoun *meus*. In addition, Craig Melchert reminds me of *ebehi* 'in this', which fills the paradigmatic position of the dat.-loc.sg. of *ebe-* 'this,' although it was originally the dat.-loc.sg. of the genitival adjective. Lyc. *ebeli* 'here' is of the same type and it proves the existence of the adjectival derivative *\*ob<sup>h</sup>elo-* for Common Anatolian.

10. Finally, the question arises whether the sound laws thus far given as *\*-ilas/-ılan* > *\*-ils/-iln* > *-il* and *\*-élas/-élan* > *\*-éls/-éln* > *-ēl*, resulting in the loss of the thematic ending, need to be formulated more generally. With respect to the stems in *-āla-*, the answer is clearly negative, since the fairly large group of common gender agent nouns in *-āla-*, e.g. <sup>LU</sup>*karimnāla-* 'temple attendant', is absolutely stable and there is no indication whatsoever of the loss of *\*-as* and *\*-an*. For the synchronic stems in *-ul-* and *-ula-*, however, the evidence allows for a different

conclusion. For they show exactly the same distribution as the stems in *-il-* and *-ila-*. Assuming again that the scriptio plena with the sign <U> serves to mark only the vowel quality and is not informative with respect to vowel length and accent, the following list of relevant plene writings in the suffix of *-ul-* stems can be presented:

- aššūl-* 'well-being': <aš-šu-ú-ul> HKM 58 rev. 29, 30  
 <aš-šu-ú-li> VBoT 2, 18, 20, 21; KBo 18.95 Vs. 5  
*waštūl-* 'sin, failure': <wa-aš-du-ú-li> KUB 23.77+ rev. 105'  
*takšūl-* 'treaty, friendship': <ták-šu-ú-ul> KUB 23.77+ obv. 33',  
 KBo 5.6 I 14  
*išhiūl-* 'treaty': <iš-ḫi-ú-ul> frequently  
*im(m)iūl-* 'food mix': <im/i-mi-ú-ul> KBo 4.2 II 33, KBo 10.37  
 II 15, KBo 12.126 I 29  
<sup>GADA</sup>*gazzarnūl-* (a piece of cloth): <<sup>GADA</sup>gaz-za-ar-nu-ú-ul> KBo  
 24.45 Rs. 5,  
 <<sup>IŠ-TU</sup><sup>GADA</sup>gaz-za-ar-nu-ú-li-it> KBo 20.116 Rs. 5' etc.  
<sup>DUG</sup>*gazzūl* '?': <<sup>DUG</sup>gaz-zu-ú-ul> KBo 13.230, 4'  
*ašḫayūl/r* (a fluid): <aš-ḫa-i-ú-ul/ur> KUB 24.10 III 18', KUB  
 24.11 III 17', KBo 21.8 III 6', KBo 12.126+ IV 40

Four more stems in *-ul-*, each one attested only once and of unknown meaning and etymology, show no scriptio plena at all: *ḫazziul* '?', *dammekul* '?', <sup>TUG</sup>*ekul* '?', and <sup>DUG</sup>*kizzul* '?'. There are, on the other hand, ten stems in *-ula-*, nine of which have no scriptio plena in the *-ula-* suffix: <sup>(LÜ)</sup>*hulḫula-* 'boxer, wrestler?', <sup>LÜ</sup>*ḫinkula-* (a cult functionary), *šerula-* '?', *ašandula-* 'garrison-', *wālula-* 'bladder', <sup>(SİG)</sup>*pittula-* 'loop, sling', *ḫaddula-* 'healthy', *aššula-* 'well-being', <sup>LÜ</sup>*paḫurula-* 'fire-tender'. The one exception is *warsula-* c. 'fragrance, refreshment, soothing'. The word normally occurs as <wa-ar-šu-la->, but in the idiomatic expression *waršuli eku-* 'drink for soothing,' with a dat.-loc.sg., it is twice attested as <wa-ar-su-ú-li> (KUB 20.99 III 21, KUB 25.37++ I 42). This is surely due to the parallelism with *aššūli* 'in favor, in friendship, for well-being', an adverb frequently attested and used with many different verbs. In view of the evidence just described, it is highly probable that the Hittite *-ūl-* stems go back to stems in *\*-ú-la-* with an accented penultimate syllable, parallel to the development of *-il-* <\*-i-la-, while the stems in *-ula-* that were accented on a different syllable kept their thematic vowel. Further evidence is constituted by the

attested lack of heteroclisy in the *-ül-* stems and the syllabification of the suffix as */-ül-/* in *-ye/a-* verbs (*išhiül* instead of *\*\*išhiwal*), which are explained by the same derivation.<sup>8</sup>

Phonetically, it is predictable that the lateral would be treated the same after */i/*, */e/* and */u/*. While the open vowel */a/*, with its low tongue position, has no effect on the place of articulation and allows for the neutral apical-alveolar pronunciation of */l/*, the other vowels are characterized by a higher position of the tongue body. Accordingly, the occlusion of */l/* is closer to the place of articulation of the vowels, i.e. closer to the palate and velum. The tongue is retracted as far as the palate, causing a laminal-palatal pronunciation of the lateral (for the process see Ladefoged and Maddieson 1996:186-87). As a consequence, the place of articulation of the lateral is almost exactly the same as is to be expected for the word-final postalveolar sibilant and nasal and more easily allows for the assimilation of the consonants. A parallel can be seen in the famous RUKI-rule of the Indo-Iranian and Balto-Slavic languages.<sup>9</sup>

In conclusion, it can be asserted that none of the inflexional or derivational morphemes ending in *-ēl-*, *-īl-*, and *-ül-* in Hittite go back to athematic endings or suffixes, but all originate instead from the loss of the final syllable of thematic *\*-lo-* stems functioning as adjectives of appurtenance. This has consequences for the look of Proto-Indo-European, since the most suggestive bases for reconstructing rare and archaic *\*-l/-n-* stems other than the word for 'sun' have been shown to be only apparent. Hittite, on the other hand, has become more "normal."

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<sup>8</sup> In Luwian no neuter nom.-acc.sg. forms in *-ul* or *-ulan(-za)* are attested. This is in accordance with the scarce attestation of *-u-* stems, which would have to provide the basis of the adjectival derivatives in the first place.

<sup>9</sup> I am grateful to Hans Henrich Hock who discussed these phonetic issues with me and drew my attention to examples of the palatalizing effects of *[u]*.

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