H. Craig MELCHERT
Two problems of Anatolian nominal derivation
Two problems of Anatolian nominal derivation*

H. Craig MELCHERT

Much of what I know about Indo-European nominal derivation I owe to the teaching of Joki SCHINDLER. It therefore seems fitting that this be the topic of the following contribution dedicated to his memory. In the first instance an insight of Professor SCHINDLER himself serves as my point of departure.

1. SECONDARY SUBSTANTIvIZING *-i- TO THEMATIC STEMS

SCHINDLER (1980: 390) cites the use of a secondary suffix *-i- to form substantives from thematic stems, themselves usually but not exclusively adjectives: e.g., Grk. ἄκρος/ἀκρός, Lat. acris 'peak, crag' beside Grk. ἄκρος 'pointed; supreme'. The observation is not original (cf. already BRUGMANN, 1906: 2/1.285 et aliter), but the productive use of this suffix in this particular function seems to have been underappreciated.

Schindler sees this suffix in the type of Hittite dalugasti- 'length', which he takes to be based on adjectives in *-osto- (cf. Lat. angustus 'narrow'), along with the corresponding Slavic class in *-osti-. See Vaillant (1974: 376f) for a similar analysis of the Slavic type.

Both the existence of secondary substantivizing *-i- and its application to the Hittite -aštī- type have either been ignored or rejected in previous discussions of Hittite/Anatolian noun formation. KRONASSER (1966: 227) notes a possible connection between the type of Hittite ēdri- 'food' and Greek ἄκρος, but sees *-ri- as a mere 'alternate' of *-ro-. NEUMANN (1958: 88ff), in what is the fullest discussion of the Hittite nouns in -ri-, attempts to justify a coherent PIE noun type in *-ri-, but with little success.

STURTEVANT (1933: 156) equates Hittite -aštī- with Slavic *-osti-, analyzed as *-ti- with some prior element*. PEDERSEN (1938: 35) implies a Hittite-Slavic equation with no further specification, while STURTEVANT (1951: 76) merely repeats the Hittite-Slavic equation. Kronasser (1956: 111f) assumes a unitary suffix *-osti-, but later (1966: 208) sees only *-sti- as common to Hittite and Slavic and doubts an exact match. Oettinger (1986a: 10, with note 37) upholds an analysis *-os-ti-, rightly rejecting the argument of Benveniste (1962: 89ff) that Anatolian shows no evidence for the underlying class of neuter abstracts in *-elos-. Oettinger does not, however, offer any motivation for why a second abstract suffix *-ti- would be added to abstracts in *-elos.
Under these circumstances a review of the full evidence for secondary substantivizing *-i- in Anatolian seems called for. I begin with the Luvo-Hittite nouns in -ašt-i-: Hitt. paḫašt-i- 'breadth', pargššī- 'height', dalugašt-i- 'length'; CLuv. lumpašt- 'regret'. These nouns, all of which are animate in gender (contrary to some earlier claims), may and should be analyzed as per above as secondary to adjectives in *-ost-o-. The latter are in turn secondary adjectives in *-to- to neuter abstracts in *-el-o-s-. We have another example of the common process by which a derivational chain substantive → adjective → substantive is formed, where the second substantive competes functionally with the first and replaces it. We also know that such derivational chains break down over time, and we cannot exclude that at some stage in Anatolian or pre-Hittite a unitary suffix *-ost-i- (or already *-asti-) became productive. We thus need not assume underlying adjectives in *-ost-o- (much less nouns in *-os-) for every attested example.

We have one piece of direct evidence for adjectives in *-ost-o- in Anatolian: Lydian tēšaštali- and šr̥saštali- 'right' and 'left' (or vice-versa). As per GUSMANI (1964: 206, 212), the attested examples of these words are clearly adjectives in context (or 'the right/left one'), not abstracts ('right/left [side]'), contra ÖTTLINGER, 1986a: 34 107. The -i- of the Lydian neuter nominative-accusative singular ending -id in this case is the "mutation-i-" explicated by STARKE, 1990: 82ff, exceptionally extended to the neuter as part of the generalization of the nominal ending -d.

We also have further indirect evidence for adjectives in *-to- from neuter s-stems, in the form of secondarily substantivized examples, several interestingly in the same semantic sphere: Hitt. ḫur-p-št-ta- 'leaf; petal' (vs. CLuv. huwrp-anna- of similar meaning); Hitt. alkiš-tā- 'branch' ← *alkiš- in hat-alkiš- 'hawthorn' (see WATKINS, 1993, for the sense; MELCHERT, 1994: 150f, for the stem); CLuv. *gulluš-ta- in gulluštanalti- (something from which things are cut) ← gulluš- (STARKE, 1990: 117); CLuv. *kunnuš-ta- in D Kunnusštala- and kunnušayaltali- '?' There is thus no reason to doubt that Anatolian had available the adjectives in *-ost-o- presumed above as the basis of nouns in *-ost-i-.

An even more productive class of secondary nouns in *-i- is comprised by those in -ri-. These are in origin secondary substantives in *-i- to adjectives in *-ro-. In at least one case we have indirect evidence for both the underlying adjective and derived noun: as per CARRUBA (1990), HLuvian *mi-za-li-tali- and Lycian *mizre- (in the personal names Hizra-muwa- and Mizre-tije-) reflect directly the adjective *mis-ro- 'shining, luminous' reconstructed by NEUMANN (1958: 88) as the base of the noun *mis-r-i- 'splen-
Two Problems of Anatolian Nominal Derivation

367
dor’ whose existence is required by the Hittite adjective mišri-want- ‘shining, splendid’ (with ‘possessive’ *-went-).

A second likely example of such a pair is Hitt. āndara- ‘blue’ (< *nhdro-, as per MACHEK, 1949: 131f) and (SFG)āntari (animate) ‘blue(ness); blue wool’. However, the fact that adjectives can become substantivized without suffixation and the very complex history of the ‘mutation-i’ in Luvian and Hittite leave some room for doubt.

Further assured examples of this type are the Hittite animate nouns SFG kišri- ‘fleece’, lüri- ‘loss’ and mūri- ‘bunch’ (< *m(V)H-ro- ‘mighty, powerful’ to mūwa- ‘power, might’, as per Michael WEISS, forthcoming). The synchronically neuter nouns ēdri- ‘food’ and ēš(ša)ri- ‘image’ (< *‘essence’ < *hjes- ‘be’, pace KRONASSER, NEUMANN, et al.) also belong here. Given their meaning, I would attribute the attested gender to backformation from or reinterpretation of collective plurals to originally animate stems: cf. for the process the famous example of Grk. ἀσπον ‘star’, back-formed from coll. pl. ἀσπα to ἀσπάρ. For collective plural to animate stems in Hittite see EICHNER (1985).

Further likely examples of animate stems include Hitt. SFG ēš(ša)ri- ‘fleece’ (prob. = ēš(ša)ri- ‘image’ < *‘essence’), paššari- ‘circle’ (MELCHERT, 1983: 140), and aurri- ‘watchtower’ (but the by-form avari- is problematic).2 Hitt. püri- ‘lip’ and CLuv. tūrali- ‘spear, lance’ also probably belong here, but are unprovable. Several of these cases may show a secondarily productive -ri-, and it cannot be excluded that such productivity was encouraged by the presence of Hurrian loanwords in -ri, as suggested by NEUMANN, 1958: 89.

Both Luvian and Hittite show a variety of further secondary substantives in *-i-. SCHINDLER (1978) already noted Hitt. šalpi- ‘dog-dung’ < *sal-bho- ‘dirty gray’ (beside the directly substantivized adjective šalpa- with the same sense). We may add Hitt. šakti- ‘sick-maintenance’ < *sokto- ‘illness’ (after WATKINS, 1974); Hitt. dannatti- ‘desolation, emptiness’ ← dannattā- ‘empty, desolate’ (see further below for the base adjective); and CLuv. ānrari- ‘force’ (noun!) ← ānurali- ‘forceful’. I also propose that Luvo-Hittite tawani- ‘stem, stalk’ is such a substantive from tawana- ‘upright, straight; honest / moral’. Given the concrete sense of the derived noun, the adjective should probably be analyzed as a virtual *(s)tōlōwelono- *‘standing upright’ < *steh₂- (contra PUHVEL, 1989: 360f, who does not recognize the connection of adjective and noun).3
Finally, in view of the just demonstrated existence of secondary substantivizing *-i- in Anatolian, I would also include here two other minor productive classes of Hittite. Čop (1966-68: 44f) already correctly analyzed „instrumental“ and result nouns in -ulli- as *-*u+dllo+i-: e.g. Sla toyottuli- ‘tuft of wool’ ← h(u)et-i- ‘pull’, iššappuli- ‘lid, cover’ ← ištap- ‘close, stop up’, kaliluli- ‘binding’ ← kalilive- ‘bind’. For the connective -u- so favored in Hittite compare -uzzi- as the productive form of primary *-*t-i-. For the synchronous neuter gender see the remarks above on ēdrī- ‘food’ and ēšri- ‘image’.4 The certain existence of -ulli- argues that we should read and analyze likewise a smaller set of „instrumental“ and result nouns in -utri-< *-*u+tldro+i- : waššutri- ‘clothing/garment’ (KUB XI 13 12), Kus šapputri- (part of harness ← šapp- ‘fit together’), surely also Gis šittutri- ‘?’.5 Čop, writing thirty years ago, understandably did not feel the need to motivate the i-stem inflection, attributing it to the widely acknowledged „rampant productivity“ of i-stems in Hittite and Luviian. The demonstration of „i-mutation“ by Starke (1990: 62ff and passim) has now drastically changed the picture, and we should no longer be prepared to accept unmotivated i-stem inflection as a matter of course.

Brugmann (1906: 2/1.339ff) already suggested that the apparently primary suffixes *-tlo- and *-tro- (and by implication the variants *-dlo- and *-dro-) originated as thematic adjectives to agentive *-tel and *-ter. It therefore does not seem unreasonable to suggest that the origin of Hittite nouns in -ulli- lies in secondary substantives in *-*i- to such adjectives in *-dlo-6. It is true that this account would imply that Anatolian inherited *-tl(-)o- and *-tr(-)o- in a very archaic guise, but I emphasize again that only the beginnings of the formation need be old. Many of the attested examples surely reflect a very late productive unitary deverbal -ulli-. It is also worth noting that Anatolian shows very few examples for substantival *-tldlo- and *-tldro- (see Melchert, 1993a).

Whether or not the above analysis of -ulli- and -utri- proves valid, the other examples cited demonstrate that a secondary suffix *-i- is well attested in Hittite and Luviian in the function of forming substantives from thematic stems. This evidence should be taken into account in further exploration of this phenomenon in Indo-European.

2. SECONDARY DENOMINATIVE *-TO- TO THEMATIC STEMS

One of the most characteristic and surprising features of Anatolian in terms of nominal derivation is the near-total absence of the primary suffix *-to- which productively forms verbal adjectives in other ancient In-
do-European languages: see OETTINGER, 1986a: 23, for the few possible indirect examples.  

In view of this situation, it is all the more significant that Anatolian shows substantial evidence for secondary denominative *-to-. Examples based on neuter s-stems have been cited above (see already OETTINGER, 1986a: 23). I will focus in what follows on derivatives from thematic stems, whose existence in Anatolian has been recognized, but whose extent has not been fully appreciated. Two preliminary remarks are in order.

First, differing accentual patterns and a Proto-Anatolian sound change lead to two attested types. In cases where the accent fell on the *-tô- or on the final syllable of the base, the result was PA *-ô-tô- or *-ô-tô-, where the voiceless stop was maintained. When the accent fell on an earlier syllable, PA *-ô-to- underwent „lenition“ to *:ô-do- (MELCHERT, 1994: 60f, following EICHNER and MORPURGO DAVIES). For the varying position of the accent see BRUGMANN, 1906: 404f.

A second problem which I must emphasize is the difficulty of distinguishing animate nouns in *-to- from those in *-t- and those in *-ti- in Lu- vian. As per STARKE, 1990: 59ff, the obligatory addition of the „mutation-ê“ to the nominative and accusative of animate stems (with deletion of a final thematic vowel of the stem) means that animate stems in *-t(i)- and in *-tê(i)- become synchronically indistinguishable. As demonstrated by RIEKEN, 1994: 47, it is also clear that original nouns in *-ti- with -i- throughout the paradigm lost the -i- outside the nominative-accusative by back-analogy to the „i-mutation“ type and hence also became indistinguishable from the latter. The three types remain distinct only in the nominative-accusative singular neuter: -tjô=za, -za (< *-t-za), and -t tô=ç. Obviously, this fact is of no help in the case of animate nouns. In the face of this massive ambiguity, I have restricted the following discussion only to examples whose status as secondary derivatives seems assured, since secondary use of *-t- or *-ti- in the attested function seems far less likely. Even so, the Lu- vian evidence cited should be viewed with the above caveat in mind, and I do not view the assignment of all individual examples as assured.

We have at least one direct example of such a secondary adjective in (un- lenited) *-ô-to-: Luvo-Hittite dannatta- ‘empty, desolate’ (in Lu- vian with „i-mutation“), best derived with WEEKS (1985: 195) from a virtual *dôjo-to- (cf. the references in TISCHLER, 1991: 98). The large number of examples of the stem dannatta- makes very implausible the attempt of TISCHLER (1991: 100) to explain this stem as resulting by „nasal reduction“
from the rarer dannant-, which is a separate and independent derivative of *dhnno-.

More plentiful are secondarily substantivized examples. The most coherent class consists of Luvian abstracts, which are unsurprisingly neuter, a group recognized by STARKE (1987: 251f): ḫappatu- 'wealth' ← *happ-ren-; ḫuppa-(ya)ta- 'wickedness' ← *huipat(ya)- 'wicked'; piḥatta- 'splendor' ← *piha- 'luminosity'; śarlatta- ← *sarləti- 'exalted' (= attested HLuv. SUPER-ləti-). We may also add here ḫīhatta- 'circle' ← ḫrha- 'boundary, edge'. Note that here a nominative-accusative such as śarlattan=za assures that the suffix is *(o)-to-. The stem nāṭatta- 'reed', attested only once in the nom.-acc. plural nāṭatta, could be neuter and belong here (so STARKE, 1987: 25133, and 1990: 138420, 418) or represent the collective plural of an animate stem as in the next paragraph.9

Names of persons and some concrete objects are animate gender (hence with *(i)-mutation): CLuv. ḫuppaltali- 'pelvis' ← ḫuppar- 'bowl' (also in ḫupparratitāli- 'id.' below), ḫarduwtali- 'descendant' ← ḫarduwa- 'id.', HLuv. hu-ha-tali- 'ancestor' ← hu-hali- 'grandfather' (also in CLuv. hu-ha-hirtiMale-ha(lali)- 'ancestral'), CLuv. wanatali- 'woman' ← wāna- 'id.'.

STARKE (1980: 76f, 1987: 251f, and 1990: 64), citing only the examples referring to persons, assumes a secondary suffix *(i)-t- instead, which OERTINGER (1986a: 10) compares to Ved. yuvati- 'young woman'. As per above, this derivation is equally possible in formal terms. A choice between the two alternatives depends in part on whether yuvati- represents an actual „type“ in *(i)-t- (see on this point WACKERNAGEL-DEBRUNNER, 1954: 639f). The example of 'pelvis' makes more likely an inner-Anatolian connection with other secondary stems in *(o)-to-. Those stems with grammatically animate gender inevitably took on the „mutation-i“ established by STARKE.

For the „lentted“ type in *(o)-o- we have again one directly attested secondary adjective: CLuv. pīnata- 'all' ← pīna- 'mass' (or similar; for the correct sense see STARKE, 1990: 303 with note 1034).

Once more there is rather more evidence for substantives: CLuv. ḫandawatali- 'supreme authority, king'10 ← ḫandawa- 'foremost, supreme'; ḫāp(a)rattitāli- 'pelvis' ← ḫāpparatitāya- 'of / pertaining to a pelvis' ← ḫuppaltali- 'pelvis' (note again the noun-adjective-noun chain); ḫāpalatali- 'sinister' ← ḫāpalə- 'left-hand'; Mī. ḫuttar(r)iyatali- 'daughter' (perhaps attested as personal name) ← *du(wa)ttariya- 'of a daughter' ← *du(wa)ttar- 'daughter' (revising STARKE, 1987: 252ff).
Hittite shows two examples of this class: **NINDA- wagata-** (animate!) 'snack-bread, roll' < *waqata- 'a bite'. The assured gender and stem of this example also argue compellingly that **kušata-** 'bride-price' (collective plural tantum) < **kuša-** 'bride' is to be interpreted in the same fashion, not (!) as an abstract †kušatar with loss of final -r.

Finally, I believe that secondary lenited **-*odo-* < *óto-* is also the ultimate source of the very problematic Lycian formant -*ada-, which appears to function in some cases as the collective plural to n-stems. We find the collective plural **mrbbhanada** beside the stem **mrbbēlan-** seen in the ablative-instrumental **mrbbēnedi** (sense unclear). As per INNOCENTE, 1987:88: 11f, and MELCHERT, 1992: 35, the form **hrīmada** seems to be the plural of the n-stem **hrīmēn-** 'temenos'. We may also add **punāmada**, required by the further derivatives **punamaδ̣ḍali-** and **punemedezeli-**, standing in the same relationship to the n-stem **punāman-** 'totality' identified by STARKE, 1990: 299.

A clue to the source of the "ending" -*ada- is provided by Hitt. **šimmanaṭa-** 'form, shape' (collective plural tantum). The latter may be derived from an n-stem **šēm-,** (i.e. **šēh₂-mnu-**), which may be at least formally equated with Lyc. **hēmen-** (see HAJNAL, 1995: 33). I suggest that a unitary suffix **-*odo-* resegmented from the **-*a-do-* described above was used to form secondary derivatives from n-stems, resulting in Hitt. **šimmanaṭa-** and Lycian **mrbban-ada**.

The shorter forms **hrīmada** and **punāmada** are due to a well attested confusion in Lycian between neuter o-stems and n-stems. By regular developments both types had a nom.-acc. plural in -*a: ara ḫā' what is proper' < **-*alōreh₂** (= Hitt. **āra** to **-*alōro-* and **adāma ḫā' names' < **-*mneh₂** to **adāman-**.11 The result was influence in both directions: hence attested singular ara ḫā' (for expected **-*alērē- < *alōrom-, but conversely zuṁme ḫā' harm' (or sim.) (implying a stem zuṁme-) beside expected zuṁmā (for the n-stem zuṁmēlēn- see the verb zuṁmēneti). Likewise, then, both **hrīmēn-** and **punamān-** could have had alternate stems **-*hrīme-** and **-*punāme-**, whence **hrīmada** and **punāmada**.

The reason for the apparent specialization of the extended stem in **-*odo-** to the collective plural in Lycian is quite unclear. It is worth stressing, however, that such a specialization may be illusory, due to the very restricted nature of our evidence. We cannot, strictly speaking, be certain that **hrīmada** is the synchronic plural to the stem **hrīmēn-** i.e., that the relationship is paradigmatic. Indeed, the fact that **punāmada** serves as the base for further derivatives (**punamaδ̣ḍali-** and **punemedezeli-**) tends to argue against
the idea that the former is merely the paradigmatic plural of *punāman-. Formation of secondary derivatives from an inflected form instead of the stem would be peculiar. Perhaps, then, Lycian collectives in -ada represent fully independent derived stems in *-ede-, corresponding to Hitt. wagata-. Any difference in meaning versus the base n-stems escapes us. In any case, the independent evidence for *-o(-)do- in Anatolian makes it a likely ultimate source for the Lycian type.

NOTES

1. As for *-osto-. OETTINGER sees only a possible secondary role in terms of „backformations“, a view he wrongly ascribes to VAILLANT.

2. CLuv. ašriwa(t)-; ‘feminine’ (or sim.) also presupposes a noun *ašri- ‘womanhood, femininity’ ← *ašr- ‘woman’. Contra STARKE, 1987: 254 and 1990: 170, and OETTINGER, 1986b: 124, the word for ‘woman’ itself is not an i-stem, as shown by ašrid(i)-; ‘female’ and other derivatives, and cannot be the base of ašriwa(t)-. The alleged hyya-stems of Luvian do not exist: see CARRUBA, 1982, and MELCHERT, 1990.

3. I would agree with PUHVEL that tawana- is also the first member of the title of the Hittite queen tawanaana- and that the word is of Indo-European heritage. However, since the holder of this title is often the ‘queen-mother’ (mother of the reigning king), a widespread ancient Near Eastern institution, we should probably analyze the whole as a determinative compound with anāna- ‘mother’ instead of a derivative with a suffix matching Latin -ōna.

4. The example ści₃₂ hii-us-tul-liā (KBo XVIII 193 Ro 9) is not evidence for animate gender, since the last sign may also be read as ₃₁₂ in Hittite: see correctly PUHVEL, 1991: 351.

5. Since the cuneiform sign RI can also be read as TAL, and since none of these nouns is yet attested in a case other than the nominative-accusative singular, a reading waššatal- etc. cannot strictly be excluded. However, the parallel with -u-līli- argues for reading -u-tri-, and to my knowledge this is the universally accepted reading.

6. Or *-tlo-. In MELCHERT (1994: 160) I denied the possibility that *.VIV- also might assimilate to Luvo-Hittite -VIV-. However, my relevant rule (1993a: 110; 1994: 87f) affecting final sequences of *-C-roms would have produced paradigmatic allomorphy *-talli# beside *.HV-. As I now realize, nothing precludes that the latter sequence underwent assimilation to *.HV-, which was then leveled out in the
few nouns in -tal based on the nom.-acc. singular. In nouns in -uli-, which would have had no forms in -tal, the assimilated form naturally would have prevailed. Likewise, Hitt. pulla-, if it means ‘child, son’, could represent *putlo- (Hoffmann, 1992: 292) with generalization of the assimilated allomorph, pace Melchert, 1994: 160.


8. In principle, the lengthening of accented *d in Hittite and Luwian (see Melchert, 1994: 146f, with references) should allow us to distinguish these two cases. However, the very optional status of „scriptio plena“ in closed syllables makes actual determination of the vowel length and hence accent quite difficult.

9. As support for a neuter, Starke correctly cites HLuv. (Soliun) i-s(a)- *tarali-ta- li:star-ta- l ‘throne’, which definitely is a secondary neuter noun in *to- from a virtual „instrumental“ noun *h₁ēs-tro-.

10. Contra Melchert (1993b: 52) this word cannot be directly equated to Lycian xētawat(i)- ‘ruler’. The difference between unlenited -t- in the latter and the lenited single -t- (= /d-t/ in the former must not be ignored. We also cannot tell whether the Luwian word is an abstract or refers to a person.

11. Lycian here shows the innovative plural in *’rneb₂ (cf. OH šarāmna to šarāman-), not the original *’rneb (preserved in OH šarāma). See Gertz, 1982: 28f & 298f, for the latter type.

REFERENCES


Two Problems of Anatolian Nominal Derivation
