TOCHARIAN
AND
INDO-EUROPEAN
STUDIES

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Tocharian Plurals in -n- and Related Phenomena

1. Tocharian Noun Plurals in -n-: the Problem
1.1 The Data

Of the myriad Tocharian nominal plural formations one of the most widely attested is that which contains an element -n-. In Tocharian B we find the invariant form -n-, where the final -n represents the neuter (more accurately collective) nom.-acc. plural ending, either athematic (*n₂) or thematic (*-n̥₆), depending on one’s views on Tocharian Ablautgenese.¹ There are more than a hundred such plurals, which may be conveniently organized into the following groups:²

A. Loanwords (92)
< Sanskrit: *adá, *adánta (proper 3sg. < ádrá- (m.)); fárta, táránta (eliquiue) < tártra- (n.). Note also cases of alternate plurals such as akdrá, akdránta/akdrántam < syllable). < Khotanese: *káṣ, *káṣánta "teacher" (mas.) < *kás-. *Middle Iranian": amok, amoktana "art" (cf. M.Pers. hamag).³

B. Nouns in -n (28)
1. < neuter x-stems: *dé, *sénta "end" (≠ A *de) < *h₂nd̪; *ḡ̪te, *ḡ̪te; *h₂nd̪;

¹ I am indebted to colleagues Joel Brentano, Henry Haffner, Stephanie Janisse, Norbert Cheming and Georges-Jean Pinault for helpful comments and references. The usual disclaimer applies to my application of them.
² For the former see Planiot (1989: 89). Adams (1988: 120) argues rather for a *-n̥. Van Wijckens (1979: 109) and Kriegl (1990: 33) allow for both possibilities. The question is immaterial for our present purposes, since a spread of the thematic ending to an athematic formation as elsewhere would be untenable.
³ The following summary is based on the material in Adams (1999), to which I refer for all further details. Unless otherwise specified, all examples show "alternating" gender, with masculine concord in the singular and feminine concord in the plural (see Kramskoy-Thomsen 1960). To list limited evidence compatible with this type, which Adams straightforwardly calls "neuter": There is general agreement that this type does originate in PIE neuter (see e.g. Planiot, 1989: 617).
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1.2. Peruviz Solutions

There is a general agreement on the elaboration of this formation within Tocharian. The internal situation in A, particularly the existence of the types listed under K. and L. above, and the number of cases where A plurals in -*nu match B plurals in -*nu assure us that the addition of the -nu is a specific secondary development within Tocharian A (see Van Windekens, 1979: 205f., with refs. and Pianalto, 1989: 93). For Proto-Tocharian we may operate with a single plural marker in -*nu- (with the added collective ending *-izh, in the nominative-accusative). While the rampant productivity of the formation makes it difficult to determine its starting point, the synchronistically alternating gender of the overwhelming number of examples argues strongly for an origin in neuter nouns.

Proposals regarding the pre-Tocharian source of the -nu- plural marker have been less satisfactory. There have been essentially two lines of argument. Several scholars have suggested that the -nu- plurals arose in Tocharian in the same way as other plural markers such as -*nu-, namely from an originally derivational suffix by false resemeblement triggered at least in part by the differing loss of final syllables in the direct and non-direct cases of the relevant noun paradigm (e.g., gehennens (1951: 76f.), Pedersen (1941: 70f.), van Windekens (1979: 200f.), and Adams (1988: 128f.). There is no doubt that this type of account is valid for several of the nominal plural types in Tocharian, and in purely formal terms this mechanism would also work for stims with a derivational -nt-suffix (see the discussion by Adams).

The problem with this explanation is the supposed starting point. Adams refers blithely to "neuter noun in -nu-", as if such a type was well-established for PIE. He cites no examples, however, and in fact I know of no such nouns in PIE, much less a stem class. The other scholars cited are aware of the problem, but Petersen offers the only detailed and explicit solution: the Tocharian type originates in substantivized neuter participles in -*nt-.

For example, he claims that an example like A klo is originally "die painting sensation" and that swi/kwarko is "that with which honors." This account by which nouns with -nt-plurals originate as essentially agentive participles is highly implausible in terms of both Tocharian and PIE. In Tocharian A such nouns refer exclusively to inanimate objects, actions, or abstractions, and exceptions in B are vanishingly rare: the only native examples are paynt (the painter), mahlhent (i.e., Buddah), mabkald (child), and mahlukpe (prince) (the last a diminutive, a category where neuter gender even for animate beings is not unusual). The same pattern extends even to the productive use with loanwords:

10 Pedersen (1941: 71) also suggests that the B nouns in -nt- are originally neuter participles, but he gives no explanation for how there would agent in Tocharian as action and result noun.

11 The example扫码 in RV 6.3.5 is not a participle at all (contra Grasmann), but a pro. 3rd sg. intransitive (with no internal subject), as per Gérard (1951: 1-121), following Göttingen (1909: 302). On the interrogative/intransitive value of pide (famously attested with nouns) in RV 10.157, see Schaeffer (1980: 457 & 135f.) with references. There is also wide agreement that such participles in RV 5.2.2, in transitive: adverbial or adjectival (see RENO, 1946: 18; GÖRNER, 1951: 2.9, Grassmann s. v.).

Gregory (1956) in RV 5.3.5 has a phrase in being transitive and an understood neutral subject (causal). For this interpretation see Odenberg (1909: 356), who cites an intrinsic alternative in his note 2. Gérard (1951: 1.7) also takes a sibathul as transitive, but adverbial, with the effect subject being Mila and Varuna, not a neuter. RENO (1939: 78 & 1960: 41) argues rather for adverbial adjectival with intransitive sense, referring either to the image of the noun, or to Mila and Varuna. Joel Breton (pers. comm.) agrees with RENO but comments that the original phrase was "you protect with increasing strength." It seems fair to say that the meaning of this difficult passage is less than certain. Even if one can see it should turn out to be real, this one exception does not affect my claim the transitive neuter participles are vanishingly rare in the oldest extant RV texts and surely were so in PIE.

12 The only Tocharian noun with an -nt-plural that can be possibly derived from a neuter participle in Tocharian B color 'cive', which could be from a *nt- -nt- that following 'flows' instead of an -nt- -nt- both possibilities are cited by Adamek, 1999: 249. But this one example could not realistically have served as the model for the entire class with his heavy concentration of action/result nouns.
2.2. The concept of the "collective" function. We have seen that the role of the "collective" function is to provide a framework within which the individual "collective" functions can operate. This is achieved by the "collective" function providing a means for the individual "collective" functions to interact and coordinate their activities. The "collective" function is therefore seen as a kind of "glue" that holds the system together.

2.3. The structure of the "collective" function. The "collective" function is composed of several sub-functions, each of which serves a specific purpose. These sub-functions include:

(a) The "collective" function for maintaining the stability of the system.
(b) The "collective" function for coordinating the activities of the individual "collective" functions.
(c) The "collective" function for responding to external stimuli.

2.4. The role of the "collective" function in decision-making. The "collective" function plays a crucial role in decision-making. It provides a means for the individual "collective" functions to collaborate and reach a consensus on important decisions. This is achieved through a process of communication and negotiation, in which each "collective" function contributes its own perspective and information to the decision-making process.

2.5. The relationship between the "collective" function and the "collective" function. The "collective" function and the "collective" function are interdependent. The "collective" function provides the framework for the "collective" function to operate, while the "collective" function provides the means for the "collective" function to achieve its goals. This interdependence is reflected in the way in which the two functions work together to achieve the overall objectives of the system.
below), but does not clearly discern the distributive function, citing one possible derivation for *ont- from a collective/abstract suffix *-ga.

Direct examples of *ont-in this function are rare in Hitite, though one may also compare for example *ontāmmimana (Hitite Nouns) to *ontāmmu (Hitite Nouns). It is a collective and reference to a specific number of body parts again requires the *ont-suffix on the numeral. More often this Hitite usage is hidden by logographic writing. 1-ont- *ont unit is written as *ontāmmu = (Akkadian ittimaru unit, set). E.g., *ontāmmar *ont-e *ont "one k." (Ro 86/299 II 15:18; KUB. 4:10 Ro 36.37; Breesz, Table 2: NHUS). Another hititē *ontāmmunna *ont set of hit. Urnun clothing. For numbers above one "2-ont etc." the Hitites (mis)take the Akkadian word nosepār "pair" e.g. 9 TAPAL *ontāmmu "nine broad provisions" (KUB. 46.6.1 I 6, etc.). See also 4-ont TAPAL EEN ITIV. KAM hiti kartan *ont "that four (sets of) monthly festivals had been neglected" (KUB. 5.7 Yo 30; thus contra Eichler, 1972, 75: no four pairs of ...). For a demonstration that nosepār here is the functional equivalent of ittimaru and does not mean "pair" see Neu (1992: 206), who does not, however, recognize the equivalence with Hitite Numerable *ont.

The same usage is also attested in Lycian, as seen by Steuerborschik (1979: 191), who misnames the examples as "collective." In reality, the same distributive function for *ont is clear from the following two passages. In TL. 114.4 we find *ontāmmu *ont̄āmmu uwa "as penalty a units (of cattle)" the collective uwa demands that the numeral be extended by *ont- thus *ontāmmu-nūs (the final -nūs merely marks agreement with the head noun uwa, as in Hitite). This contrasts neatly with TL. 149.4 da̱mmu *ont̄āmmu *ont awwal as "the total penalty 1 cow(s)." As shown by Hitite, Anatolian languages can construe a numeral with the suffix *ont. Lycian word is animate accusative singular, and the number suffix *ont what its exact meaning predict-
of the ordinary plural, I prefer to think in terms of a contrast singular, dual, and two subclasses of plural, count/distributive and collective. The crucial point, however, is whether the contrast of distributive versus collective nouns can be demonstrated for PIE.

Eichner's arguments have been explicitly rejected by Hansen (1987: 83f), Tichy (1993: 7) and Prinz (1997: 188ff). The first two authors claim that the Hittite type of alpha 'clouds,mass, Great Wolf' besides alpha/adapta 'clouds' to animate alpha-'cloud' is as marginal as that of Latin locus, loci, locum, and that there is no basis for assuming that the collective was ever integrated into the paradigm of such animate nouns. Prinz (1997: 61f) reviews only the Hittite examples that show the ending -a, failing to recognize those in -ai and -a.1

3.1. Collective vs. Count Plural in Anuallian

Unfortunately, Eichner in his 1985a presentation cited only a handful of Hittite cases of collectives formed in animate stems, thus dismissing the conclusion of the opposing authors that this phenomenon never achieved grammatical status. In fact, there is much more evidence to support the claim that animate nouns in Old Hittite productively formed collective plurals besides count plurals, and there is evidence from Luvian and Lydian to attest that this was true from Proto-Anatolian. In order to reconfirm the validity of Eichner's claim for PIE, it seems necessary to cite this evidence in full here.

I have found at least twenty assured examples, and there are likely many more (see Prinz, 1997: 61f for several not included here). I give only the certain cases.

alpa- 'cloud'; nom. acc. pl. alpα/adapta 'clouds, Wolken' vs. coll. pl. alpa 'cloud-mass, Great Wolf'.

armiti- 'teak, work'; acc. pl. antu(adatu), but coll. pl. antu lexicalized as 'regalia'.

armiti- 'bridge'; usually coll. pl. in reference to a total structure (NB KBo 22.6.118 dat. loc. pl. armżitad referring to a single bridge), but see ar-mi-

1 She also fails to take into account the evidence of Hittite plurality tenses of various stem classes, such as nom. acc. pl. b displa 'vote, assembly, council' (dat. loc. displana)- meaning after Harry Hoffner, pres. conj. -ED, or nom. acc. pl. warpa to warpa 'enclosure' (dat. loc. warpay). She thus misses the crucial evidence for the plural inflected tenses. The indirect evidence is that the latter had already developed a plural in Hittite. The above cases of plural inflected tenses clearly falsify this claim (see already Vreden, 1982: 280ff). See also below on hittism. Prinz also ignores the corroborating evidence of Lydian and Luvian for the plural status of collective -ai already in Proto-Anatolian: Lydian nom. acc. armazata, dat. avarmazata 'memorial monument', nom. acc. armata, dat. mere 'laws', among others. For Lydian see nom. acc. laqamata, dat. loc. laqman (part of the grave) and see Carretto (1959: 84f) for further examples.
They pull down the head-scarf from the reed table and make it (into) a path. Then in front of the head-scarf they draw a path of gravel. On one side of the path of gravel they draw a path of honey, while on the other side they draw a path of mixed wine and fine oil. (KUB 15.54.1 21-25; CTH 483)


The fragmentary nature of many of our texts inevitably precludes our deter-
mising to many cases the motivation for the use of a collective instead of a count plural. However, there are enough clearly motivating examples to assure us that the distinction was a living one. When kalamaru refers to the real rays of the Sun it predicates it has an ordinary count plural. Except for the collective kalamaru undoubtedly reflects the fact that the silver replica was a sun-disk, a single solid piece with the rays marked by etching or molding, not a set of individual strands of silver. A person’s assigned fate is a collective notion (guluta), but the Fates as individual goddesses naturally appear as a count plural. Finally, the well-established practice by which the Hittites lured deities by laying down parallel paths of various emitting materials makes clear why Tellipolin is invited to step on a symbol pata. Compare also the functional...
That this solution to providing count plurals for neutrals was not common is understandable: use of the enclitics -el/-el ordinarily associated with animate nouns with neutrals would likely have caused some confusion. One is not surprised that this difficulty was removed in the case of *car~* by forming a new animate *-stem and restoring regularity.

3.2. Neuter Plural in PIE, Anatolian, and Tocharian

Evidence that the use of the collective marker *-ak* (in its various reflexes) as a plural with animate stems was fully productive in Hittite (and in all likelihood in Proto-Anatolian) strongly supports in my view Richter's contention that the collective plural was already integrated into the paradigm of animate nouns in PIE. The status of the neuter plural in PIE is less clear. Richter supposes that neutrals in PIE had only a collective plural and no count plural.

This is a viable possibility. PIE speakers surely had a way of expressing a count plural to neutrals if the need arose, but nothing requires that there have been a grammatical category for this purpose.

Be that as it may, Anatolian speakers eventually felt the need to provide a formal expression for count plurals to neutrals, and the device most widely used was an *- suffix, attached to a modifying numeral (or in the case of some Clavian nouns) directly to the noun itself. Van Windekens (1979: 205), while rejecting any connection of Tocharian -ur-plurals with Anatolian formations, does acknowledge that Tocharian speakers might have faced the same problem: "I faut aussi tenir compte de la nécessité qui a pu être existé en tokharian, d'une distinction entre le plurality proprement dit et le 'collectif'."

Based on the material presented above, I suggest that Tocharian came up with a similar solution. In the Clavian examples such as datawana 'eyes' we cannot tell whether the -ur-suffix has been added directly to the underlying stem or to the collective *-ak. In its productive guise Tocharian -ur-obviously is added to stems, but there are also signs that it could be added to the inherited

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9 Since there is no evidence anywhere for the collective being affected as anything but a plural (including Anatolian, pace Prou), I find it likely that the collective form of neuter nouns was also already a plural in PIE, resuming the non-direct case by plural forms.

10 However, as Alun Niasbain has reminded me, a true collective can only be formed to a count noun. It makes no sense to speak of a collective to a mass noun. Price (1997: 194f. & 230) makes the same point. The issue of the collective noun to neutrals in PIE thus depends on whether one thinks PIE already had some neuter count nouns, to which *-ak* would then have been the collective plural. Price (1997: 194f) cites the very interesting proposal of Oppenheimer (1985), according to which in early PIE the only neuters were mass nouns. I would characterize this stage as pre-PIE, but the point may be argued. I insist only that animate nouns already had a collective plural beside a count plural in PIE (as per Richter) and not by Proto-Anatolian and Proto-Tocharian neuter nouns also had a collective plural, modeled after that of the animate nouns. Just what the synchronous value was of the collective plural would then be a mass noun (Hittite wildfire, dat.-loc. westeren, beside sing. westeren) remains hard to determine.
collective plural. Pluralis (1997a: 225) argues that Tocharian A definite ‘year’ reflects an old collective *tādor ‘mass of years’ and that the accented plural kāndor agrees with this form, with -a- added. He has similarly argued (Pluralis, 1997b: 204ff.) that Tocharian B plural gāndor ‘sheep’ is the reflex of the collective plural *gādor extended by *-a-, while tādy ‘is a newly created singulative.

Both Tocharian and Anatolian, then, show the use of the *n-suffix is form count plurals to collectives. In Tocharian the suffix came to be used productively to form plurals, tādy to neuter nouns and then more widely. Van Woudenberg, 1997: 4 & 205, for how the use might have spread from neuter s-stems to masculine a-stems. I leave open whether the use with neuter stems took place directly or via the neuter stems to be ‘year(s)’. While I would not claim to know what the situation was in PIE, there are enough congruence that the *n-suffix is employed in the way that the *n-suffix is employed in Tocharian and Anatolian that I find it unlikely that we are dealing with the reflex of a PIE usage. Rather, the two branches seized upon the same formal device for dealing with a similar problem.

4. Source of the *n- Plural Suffix

4.1. "Individualizing" -n- in Anatolian

The immediate source of the *n-suffix employed here was identified long ago by Goetz. As he showed, Hittite employs two contrasting forms for the names of the (three) seasons, one with the suffix -n- and one without. Goetz defines the difference in usage as follows (1951: 470): "Whenever *hantamhant- is employed, the speaker conceives of 'spring' as an indivisible whole which together with the other seasons forms the year. Whenever, on the other hand, he uses *hantamhant-, he thinks of a stretch of time which in its entirety makes up the season 'spring'." More concretely, the basic stem *hantamhant- occurs only in the aative-locative 'in springtime' and the passive genitive singular (of festival) 'of spring' (i.e. any festival held in the spring). On the other hand, *hantamhant- occurs chiefly in the nominative plural *hantamhanhant- in the phrase "the spring when the season comes (kitarli), referring to a specific stage of the actual event). One also finds EKEN hantamhanhantu of the festival of the spring (i.e. with Goetz, the spring-festival that characterizes the spring, as in KUB 13.4.54). Compare also the allative pura hantamhanhantu 'through to the next' in the Laws 110. Similarly, we find atn- in 'autumn' (generally) vs. malatyamTanatu kitari 'when the autumn

* I am not persuaded by the critique of Pluralis's analysis by Winter (1999: 249ff.) on this point. The very creation of the singulative *-a- supports the existence of a collective.

The relevance of this Anatolian material was stressed by Berendzen (1935: 224f.), but I have slightly altered the form of his argument by defining the form as ‘collective’ and by wrongly bringing in the Hittite ergative type and the Latin animate possessiva as well.

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comes', referring to a particular year. The force of -an- here may be described as "individualizing" or "delimiting": it is used to refer to a particular instance of the season named or to one season as contrasted with all others. For the individual seasons contrasted see kimmamra ... *hantampano (KUB 4.4.4 Ra 3.5) or šamati hantampano (KUB 22.27.3 12).

There is other evidence in Hittite and elsewhere in Anatolian for such a use of -an-. Elticher (1992: 36) properly cites KUB 5.4.60 vo as evidence for 1- an- ("(y-) in order to stress ‘one’ as an indivisible unit: *su-an-itamh NISP DINING) i-ia i-an ADDIN nu-an-itamh NISP DINING nyrapu-ta-an-itamh NISP itamh in *yrapu-ta-an-itamh because ‘I have given you one oath as an indivisible unit, as the oath is an indivisible unit for you, you may also be an indivisible unit.’ We also occasionally find -an- used with animate nouns in Hittite where emphasis is being placed on discrete individual exemplars: ISTMRI 2 QATI 10-11t akitiška 'with your two hands and ten fingers' (KUB 17.32.12) — Hittite kaluskaš is grammatically animate. In Hieroglyphic Luvian and Lycian we find the word ‘place’ (an inherited neuter a-stem) regularly extended by -an- when the reference is to a specific place or places. For HLB anvar contradicts (LOCUS)ap to-ak-ak-ta- ‘hurl/mash to the ground’ (but with Pontos) vs. LOCUS-ar-tiva ‘tapiš’t (a specific place): za-ar-LOCUS-ar-tiva ‘in this place’: da-pa-ta-LOCUS-ar-ta-za- ‘in those places’. Similarly in Lycian one finds ta ibva; renta: Ist Malatut; paltat ‘And likewise in Hyetana a state is placed down in the place/market of Malija (IL 44c.5-11) or 3-es-l-de tovetel: hekitas: *nvet ev ev Ta-TPhalp paltatlu ‘And he established sanctuaries in every district to the local fire-god’ (IL 44b.51-52).

4.2. "Individualizing" *-on- vs. -on-

For *-on- as an "individualizing" suffix outside Anatolian see Solta (1958) and Oettinger (1997 and to appear), who adds the case of Skt. mahān- ‘the great (one)’. I follow Solta (1958: 6f.) and Oettinger in analyzing *individualizing* *-on- as an extension of "individualizing, substantivizing" *-on-. As is well-known, the latter often has an affective value, especially in used in names (Gur. Tepapal ‘the squinting one’, Lait. Cūšu ‘the sharp, cunning one’, etc.). This makes it likely that the same suffix is the source of the Hittite type where -an- is added to an already adjectival stem without any apparent functional

* There is also an extended stem *be-dan- to *wittis- ‘year’, attested indirectly in the former derivative wittisar/nat ("interesting period of a year"). The delimiting sense of -an- is reflected in the absence of ‘period, interval’. For the suffix of -dan- to *dippap- and hekim- see already Puhvel (1991: 380), who also correctly compares Greek en- and Tocharian post- ‘all’, and Elticher (1992: 36).
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difference (e.g. *da/ba*-jant to *da/ba*-miguty). 4 It cannot be accidental that a high percentage of these, especially those for which the base adjective is unattested, have a demonstrative value: makian -'this', marian- 'foulish', papan- 'impute', dudiamon- 'dead', dudiamoana- 'lame', wargan- 'bat' (so also Oettinger 1997: 205 'stigmatized'). There is independent evidence for the underlying "individualizing" *e-on- in Anatolian; in Lycian personal names such as Xudobj beside Xudob (probably 'the nimble one' or the like—cf. Hitite ḫud-i- 'slacker' and Pygrob (the splendid one) from a ro-adjective probably directly attested in Milyan Pītə). In the latter case the *-on- suffix has been further extended by the so-called "mutation -ə".

As indicated above, the underlying *e-on- suffices as substantivizing as well as individualizing. The same is true of the extended *e-on-variants. While this presents no problem for its use in forming plurals to neuter nouns, one may question the claim that it also underlies Hitite numerals in -on/ - the or the set of adjectives just cited. However, as it is well-known, the *e-on- suffices serves as part of the basis for the weak declension of adjectives in Germanic (for a recent discussion see Hajnal, 1997: 42f), so an adjectival use for the extended form *-on- is also unproblematic. 45

5. Conclusion

I may briefly summarize the major conclusions of this investigation as follows. First, there is substantial evidence to show that Old Hitite had the collective plural as a fully productive grammatical category contrasting with the count plural in animate nouns, and there is corroborating evidence from Luvian and Lycian that this state of affairs is at least as old as Proto-Anatolian. These facts strongly support the claim of Eichener for such a contrast in animate nouns in PIE, despite assertions to the contrary. As per Eichener, neuter nouns in PIE probably had only a collective plural. Both Anatolian and Tocharian came to feel a need for a count plural for neutrals and in slightly different ways exploited

4 Eichener (1992: 36) already suggests a connection between the -on suffix of the numerals and the "fractionless" -n suffix of these adjectives, but he does not identify the "individualizing" value.

4 I cannot follow Sohre (1958: 3 and passim) in taking the affective value as the original, nor is there any basis for Kindes's claim (1956: 199) of an original "intensive" value. This is surely a pragmatic effect. Human beings tend to be made uncomfortable by being singled out by one of their physical characteristics, even if the trait is not inherently negative (expressions like "the tall kid", "the big guy" quickly acquire an affective value, one that easily turns negative). Likewise, the diminutive sense of a number of examples is a secondary specialization (pace Sohre, 1958: 12), as is other IE suffixes such as *-jant.

4 For the possibility of a phonological rather than morphological source for the extended form in -on see Oettinger (to appear).
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