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ON THE INDO-EUROPEAN ORIGIN OF LITH. 2nd Du. VERBAL SUFFIX *-ta**(for William R. Schmalstieg)*

It is well known that Lithuanian possesses a second person dual verbal suffix in *-ta*, e. g., *juñtata* 'you two feel' (cf. Endzelīns 1971 : 205). This suffix is not without cognate forms. As Burrow (1973 : 311) observes: „In Balto-Slavonic there appears an ending in *-tā* which in Lithuanian appears only in the second person (*sùkata*, *sùkato-s*) in Slavonic in both [the second and third persons] (O.Sl. 2, 3 *vezeta*). It corresponds to the [active] secondary ending of the third person in Sanskrit (*-tām*: *Ōk. -tēn*, *Dor. -tān*) to which *-m* is a secondary addition.“ Cowgill (1987 : 88) maintains that „Umbrian adds a witness to Balto-Slavic for a second dual in **-tā*“ in the attested second person plural suffix *-to* (cf. also Brugmann 1916 : 577–578). The primary terminations of the active second and third persons of the dual in Sanskrit (2nd pers. *-thas*, 3rd pers. *-tas*) and Gothic (2nd pers. *-ts*) similarly „compare [to] the *-tis* (< *-tes*) of Lat. *legitis*, etc., which is used as 2 plur.“ (Burrow 1973 : 311). Yet, despite certain dialectal correspondences in form and function, it is clear that there exists considerable formal and functional variation among the desinences identified as cognates of Lith. *-ta*. Such variation has led Szemerényi (1980 : 218) to remark that „dennoch lässt sich keine idg. Form für die 2. 3. Du. wiedergewinnen.“ It is the purpose of this brief paper to examine these complex dialectal data in light of some recent proposals of mine regarding Indo-European verb morphology in order to identify whatever Indo-European sources underlie the Lithuanian suffix *-ta* and related forms. Especially significant to this discussion is my view of the origin of the non-singular verbal affixes as outlined in Shields (1992a : 65–83).

At the center of my theory is the notion that „the wealth of forms, tenses, and moods that characterize Greek and Sanskrit, and in which an earlier generation saw the prototype of exemplary Indo-European grammatical structure in the verbal system, is nothing but a recent common development of this subgroup of languages“ (Polomé 1982 : 53). For this reason, in contrast to „the traditional description of reconstructed IE.“ as „a unitary language ... exist[ing] as such in some place in Europe

or Asia ... at a specific point of time, becoming later differentiated into languages that in turn became differentiated into others or into dialects," Adrados (1992 : 1–2) advocates a „theory of IE. conceived as a series of successive [temporal] strata: to be more precise, a theory of ... three strata," consisting of Pre-Inflectional Indo-European, Common Indo-European, and Dialectal (Post-Anatolian) Indo-European. In order to understand the historical development of the Lithuanian desinence *-ta*, it is necessary to understand the dynamics of the changes occurring within Indo-European conjugation as it evolved from Stage II to Stage III.

For example, in Common Indo-European „tense and the time of the action were not indicated by means of verbal affixes“ but instead „were given by means of particles or adverbs or were implicit in the aspects of verb forms“ (Lehmann 1974 : 139). The late appearance of inflectional tense marking is indicated „by the very late development of the primary/secondary opposition in verbal endings, since this opposition bears a central role in characterizing the present and past tenses“ (Shields 1992a : 17). Burrow (1973 : 314) thus says: „It does not seem that the distinction between primary and secondary endings was fully worked out in the IE period. For instance, in the 1 plur. and in the 2 plur. Greek makes no distinction (P.S. *-men*), and this indifference is shared by other languages (O.Sl. *nesemŭ*, *nesomŭ*, Goth. *bindam*, *witum -budum*). The distinction appears in Hittite and Indo-Iranian, but it is effected by quite different means. In Hittite *-weni*, *-meni* beside *-wen*, *-men* is clearly a private innovation modeled on the three persons of the [present] singular ... In Indo-Iranian the distinction is effected by the choice of two different forms of the suffix (*mas/ma*, similarly du. *vas/va*) and there is no evidence to show that this variation was connected with the distinction between secondary and primary in the IE period.“ Moreover, as Kerns & Schwartz (1971 : 4) point out, „in some of the dialects ‘secondary’ endings regularly occur in some present forms, e. g., Dor. sg. 2 *phére-s*, Lat. *vehi-s*, Lith. *vėža*,” and „the OIr. conjunct presents.“ The use of such forms in the present tense without the occurrence of the primary marker **-i*, of deictic origin (Watkins 1962 : 102–103), is also testimony to the antiquity of the secondary verbal desinences.

It would also appear that the three-way opposition of person attested in the conjugation of the dialects emerged only gradually. Thus, Watkins (1962 : 105) says that „the rigid paradigmatic structure for the three persons of the singular, *-m(i)*, *-s(i)*, *-t(i)*, belongs only to the latest period of Common Indo-European, and was completely achieved only after the separation of the dialects,” while Erhart (1970 : 113) asserts more specifically that, at one point in the development of Indo-European, „es bestand wohl damals noch kein Unterschied zwischen der 2. und der 3. Person...“ Erhart and Watkins support this claim by noting numerous attested cases of suffixes assuming more than one personal function. For example, the marker **-s*, traditionally

associated with the second person singular, occurs dialectally in certain third person singular constructions like Hitt. *daiš* 'he placed', Toch. A *präkäs*, B *preksa* 'he asked', Skt. *bhūyās* 'he should have been', OPers. *āiš* 'he went', and ON *brýtr* (< **breutiz*) 'he breaks', cf. Watkins (1962 : 90–106) and Shields (1992a : 15). Although **-t* represents the principal exponent of the third person singular in the historical dialects, it also constitutes the principal exponent of the second person in the plural (Erhart 1970 : 58), cf., e. g., 2nd pl. act. Skt. *-t(h)a*, Gk. *-te*, Go. *-þ*, OCS *-te* (1). Because the emergence of the *primary / secondary* and *second person/third person* oppositions was completed only in the dialectal period, it is not surprising that attested asymmetries in the temporal and personal uses of the second and third person dual endings should occur in the dialects themselves. Kuryłowicz' complicated analogical explanations (1964 : 153–156) regarding the original functional distribution of a proposed Indo-European ablaut alternation in *e/o/ā* in the second and third person dual suffixes is thus a misguided attempt based on his assumption that a fully developed set of Indo-European second/third person dual suffixes was somehow reduced in the individual dialects.

I have also committed myself to the position that the opposition between *singular* and *non-singular* categories in the verb was a rather late development in the evolution of Indo-European and that the bifurcation of the *non-singular* category into *dual* and *plural* was an especially late phenomenon (cf. Shields 1992a : 13–15). Lehmann (1974 : 201–202) states: „The system of verb endings clearly points to an earlier period in which there was no verbal inflection for number... For the dual and plural endings are obviously defective. We cannot reconstruct endings in these two numbers which are as well supported as are those of the singular, except for the third plural... The number system is defective in substantival as well as in verbal inflection. The personal pronouns never did introduce expressions for plurality, as suppletive paradigms indicate, e. g., Hitt. *uk* 'I', *uēš* 'we', etc., in contrast with nouns, e. g., *antuḥšaš*, *antuḥšeš* 'man, men'... Number accordingly was not consistently applied in late PIE and the early dialects in accordance with natural reference. Subsequently application became more regular, and number congruence was carried out for both substantives and verbs,“ cf. also Adrados (1985 : 31–32). „The very late bifurcation of the *non-singular* into *dual* and *plural* is indicated by the primitively developed status of the dual in Hittite (Ivanov 1958 : 250) and the striking similarities between dual and plural suffixes“ (Shields 1991 : 53–54), cf. also Adrados (1987 : 7). Thus, Erhart (1970 : 146) emphasizes the formal parallels between such nominal desinences as the dative dual (**-mu*) and the dative plural (**-mus*), cf. also Schmalstieg (1974 : 192). The dual and plural reflexes of the verbal affix **-tā* likewise result from its original undifferentiated dual/plural role.

When the non-singular inflectional category did emerge in Indo-European, it was manifested formally through a number of different exponents which may have had their origin in deictic particles (see Shields Forthcoming b for details). Among the non-singular desinences traditionally reconstructed for Indo-European are **(e/o)s* (nom. pl. Skt. *devās* ‘gods’, Go. *dagōs* ‘days’; acc. pl. Lat. *lupōs*, Lith. *vilkūs* ‘wolves’) and **-i* (nom. pl. Gk. *khōrai* ‘lands’, Lat. *portae* ‘doors’; nom.-acc. du. Skt. *bāle* ‘two maidens’, Lith. *rankì* ‘two hands’; nom.-acc. pl. Hitt. *kururi* ‘hostilities’). Moreover, I believe that a non-singular suffix in **(e/o)N* (= *m* or *n*) can be reconstructed for Indo-European on the basis of such Tocharian nominative plurals as AB *riñ* ‘cities’ and *kāntwāñ* ‘tongues’ (cf. Schmalstieg 1980 : 74) and nominative-accusative duals (parals) terminated in A-*(ä)m* (*klošäm* ‘ears’), B-*(a)ne* (*klauts(a)ne* ‘ears’) (cf. Shields 1982a : 64). **(e/o)N* is attested also in contamination with the non-singular ending **-T* [= *t* or *d*] in the nominal plural suffix **-nt*: Toch. A *-nt*, *-ntu*, Toch. B *-nta*, Luwian *-nzi* (nom.), *-nza* (acc.-dat.) (cf. Schmalstieg 1980 : 75–76). „Since the collective is a secondary function of the non-singular (cf. Kuryłowicz [1964 : 204]) and Shields [1982a : 63–64]), it is important to note that ‘in Hittite, Indo-Iranian, Slavic and perhaps in Greek, we find *-nt* more or less clearly as a collective suffix according to Erhart [(1970 : 79)]. Sturtevant (1933 : 70) cites such forms as *an-tu-uh-ša-an-na-an-za* ‘people’ as opposed to *an-tu-uh-ša-aš* ‘man’ (Schmalstieg 1980 : 75)“ (Shields 1992a : 66). The non-singular suffix **-T* is found in uncontaminated form in the nominative dual of the personal pronouns of Germanic (OE *wit* ‘we two’, OE *zīt* ‘you two’) and possibly Baltic (Lith. [dial.] *vėdu*, *mūdu* ‘we two’, *jūdu* ‘you two’) (Shields 1981). The non-singular marker **(e/o)N* has additional reflexes in the *o*-, *i*-, and *u*-stem nominative-accusative dual endings traditionally reconstructed as **-ō* (Skt. *vṛkā*, Gk. *lúkō* ‘two wolves’), **-ī* (Skt. *āvī* ‘two sheep’, Lith. *naktì* ‘two nights’), and **-ū* (Skt. *sūnū*, Lith. *sūnu* ‘two sons’), which derive from **-V* (short [stem-]vowel) plus **-N* (nasal) in preconsonantal sandhi, according to Schmalstieg (1973 : 147–151, 1974). These original non-singular sandhi variants in **-V̄* and **-VN* were subject to subsequent specialization and/or generalization in various dialects, cf. Shields (1992a : 10–12, 65–69). A non-singular desinence in **-e* is attested in Gk. *mētér-e* ‘two mothers’, Lith. (dial.) *žmun-e* ‘two men’, and OIr. *rig* (< **rēg-e*) ‘two kings’ (Shields 1982b). In Tocharian B, it is seen in the dual suffix *-(a)n-e* (< **-o*, the *o*-grade variant, cf. Van Windekens 1979 : 243). Other non-singular affixes which can be ascribed to Indo-European include **-u*, **-k*, and **(e/o)r*. (See Shields 1985, 1992b, and Forthcoming a for details.)

In Shields (1992a : 67–73), I present a theory concerning the origin of non-singular verb endings in Late Common and Dialectal Indo-European. In the first place, I believe that the original form of the third person non-singular (> secondary plural) was **-oN*,

the nasal non-singular marker itself. Schmalstieg (1973 : 190) argues: „The Greek 3rd pl. active imperfect *épher-on* is usually considered cognate with the Sanskrit form *ábhar-an*. It is usually assumed that in these forms a final **-t* has been lost both in Greek and Sanskrit, but the assumption is unnecessary. Both forms could reflect final **-oN*, i.e. the thematic vowel plus the plural marker **-N*. Likewise, it is usually thought that the OCS 3rd pl. aorist ending encountered in *(id-)ǫ* ‘they went’ reflects Indo-European **-ont*. Again the assumption of a final **-t* is unnecessary. An Indo-European final **-oN* would have passed to Proto-Slavic **-un* which could have developed either into **-u > ǫ* or *-u = -ǫ*. In this case the latter variant was chosen. (See Schmalstieg 1971 : 139–140.) Similarly, the Gothic 3rd pl. secondary ending *-un* may reflect IE **-N* without a final **-t*.” Schmalstieg (1976 : 25) further maintains that „the older verbal ending **-oN* is preserved ... perhaps in the Lith. nom. pl. pres. act. participle in *-q*, if this is an etymological 3rd pl. as Cowgill (1970) suggests“ and that „the same thing seems to be true for the Tocharian B 3rd pl. *palkem* (*pälken-ne*)... The 3rd pl. ending *-en(-)* could be derived from Indo-European **-on(-)*“ (1977 : 295). In Shields (1980), I argue that the third person plural secondary ending *-ns* of Oscan-Umbrian represents a hypercharacterization of the suffix **-(e/o)N* by the second–third person desinence **-is*, but „it is quite reasonable to assume that *-ns* actually shows a contamination of the non-singular markers **-(e/o)N* and **-(e/o)s*, since, according to Buck (1904 : 69), in Oscan-Umbrian ‘a short *o*, *e*, or *i* is dropped before final *s*.’ In any case, it seems that the Oscan-Umbrian ending lends support to the assertion that **-(e/o)N* had independent morphemic status from an early date“ (Shields Forthcoming a).

If one follows Watkins (1969 : 49) in reconstructing **-Ø* as an Indo-European third person singular marker, then the third person plural affix **-oN* may simply constitute the extension of **-Ø* by a non-singular morpheme. In any event, in the first and second persons, specifically non-singular verbal affixes were created by affixing non-singular markers like **-(e/o)N* and **-(e/o)s* to extant singular desinences. Thus, **-(e/o)N* was added to the first person singular suffix **-m* to create such non-singular suffixes as (plural) Gk. *-men* and Hitt. *-men(i)*, while **-(e/o)s* was used to derive (plural) Skt. *-mas(i)*, Dor. *-mes*, and Lat. *-mus*; and **-e* was incorporated into (plural) Skt. *-ma*. Vedic (plural) *-mā* attests the extension of **-m* by **-ē/ō* (< **-e/oN*), as do Lith. (plural) *-mė-s* (reflexive) and *-m(e)* (active) (cf. Endzelīns 1971 : 204), and Go. (plural) *-ma* (optative). The first person marker **-u* was similarly extended by **-(e/o)s* (dual Skt. *-vas*, Go. *-ōs* [< **-o-wos*]), **-(e/o)N* (plural Hitt. *-wen(i)*), **-ē/ō* (dual OCS *-vě*, Lith. *-va* [< **-v-ō*], cf. Burrow 1973 : 310), and **-e* (dual Skt. *-va*). In the second person, the personal marker **-t(h)* is extended by the non-singular morpheme **-(e/o)N* in Hitt. (plural) *-ten(i)*, Skt. (plural) *-t(h)an-a* (2),

Skt. (dual) *-tam*, and Gk. (2/3 dual) *-ton*, and by its original preconsonantal variant **-ē/ō* in Lith. (plural) *-tės(i)* (reflexive), *-t(e)* (active); by **(e/o)s* in Skt. (dual) *-t(h)as* (3), Go. (dual) *-ts* (4), and Lat. (plural) *-tis*; an *d* by **-e* in Skt. (plural) *-t(h)a*, Gk. (plural) *-te*, Go. (plural) *-þ*, OCS (plural) *-te*.

Now I believe that the Balto-Slavic second person dual suffix in **-tā* can be explained in an identical fashion. It is well known that Indo-European possessed a non-singular suffix in „**-ā : *-ə*“ (Meillet 1964 : 323) (5), which came ultimately to be associated with collective value (Lehmann 1974 : 200) (cf., e. g., Skt. *yugā*, Gk. *dzugá*, Lat. *iuga*, Go. *juka*, OCS *iga* ‘yokes’). It is possible, then, that the Balto-Slavic dual affix *-ta* and the cognate Umbrian plural affix *-to* represent the second person marker **-t* extended by non-singular **-ā*. Sanskrit third person dual *-tām* and Greek third person dual *-tēn* (Dor. *-tān*) seem to attest **-tā* plus the non-singular ending **-N*, apparently attached as a means of hypercharacterizing the non-singularity of the formation. Because the *non-singular* category became fully established only in the dialectal period, some dialectal variation could be expected in the particular non-singular morphemes participating in the common Indo-European process of deriving non-singular verbal endings by means of affixing non-singular elements to personal endings (6). Moreover, as noted earlier, discrepancies in the temporal, personal, and number distribution of these and other apparent cognate non-singular verbal suffixes can be attributed to the late development of the primary/secondary opposition and the late differentiation of the second and the third persons and the dual and the plural numbers .

NOTES

(1) In regard to Skt. 2nd pl. act. *-t(h)a*, I subscribe to Erhart’s assessment (1970 : 58) that „der Unterscheid *t* (3. u. 2. Ps.) : *th* (nur 2. Ps.) ist vielleicht in der Weise zu deuten, dass die schon seit der Periode bestehende phonetische Variation *t~th* später zur sekundären Differenzierung grammatischer Formen ausgenützt worden ist.“ A novel approach to the origin of this variation appears in Shields 1992a : 40–43.

(2) The element *-a* probably derives from the non-singular suffix **-e*, which serves to hypercharacterize the non-singularity of the construction. An identical contamination of **(e/o)N* and **-e* is found in the Tocharian B nominal dual suffix *-(a)ne*, although an *o*-grade variant of **-e* is present here (cf. Van Windekens 1979 : 243).

(3) I agree with Burrow (1973 : 311) that the Sanskrit 3rd du. form *-tas* „is not of independent origin but merely a variant in form of the 2 dual. The same form may appear for both as in the Gk. primary ending (*phéreton*).“ Again, the historical

distribution of these suffixes results from the original unity of the second and third persons in the proto-language.

(4) On the peculiarity of consonantism in the Gothic suffix, see Shields (1979).

(5) **-ā* itself may derive from a contamination of **-a* and **-h* (Lehmann 1974 : 200) or **-a* and **(e/o)N* (Shields 1982a : 67–70).

(6) On the origin and development of non-singular verbal suffixes in **(e/o)r*, see Shields (Forthcoming a), which demonstrates the parallel evolution of these *r*-forms.

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