

***A FEW COMMENTS ON THE BALTO-SLAVIC
AND INDO-IRANIAN ADJECTIVAL DECLENSION
AND THE PRONOUN *TOS***

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In this article I start from the assumption that the Indo-European case system was gradually created over a period of time and that the more developed systems of Indo-Iranian and Balto-Slavic are innovations. According to Lehmann (1958, 182): “The cases expressing adverbial relationships (instrumental, dative, ablative, locative and the genitive in some uses) are late...”¹ He writes further (1958, 202) that the original cases must have been nominative, accusative, genitive and vocative. I subscribe to Lehmann’s view but in place of the term *accusative* I would use the term *adverbial* to describe a case which functioned with meanings which we have become accustomed to calling dative, instrumental, locative and accusative. Rather than assuming deletions performed on morphemic monsters I assume accretions of minimorphemes, the vowels *-i(-) and *-u(-), the consonants *-s(-), *-m(-), and in Indo-Iranian *-bh(-). (I should mention the notion that Balto-Slavic and Germanic *-m- < *-bh, see Leskien (1876, 101) and Martinet (1986, 172), although I don’t necessarily support this view). In other words I would assume that the development of the prehistoric system was similar to that observed in the creation of the new cases in the Baltic languages, as illustrated by the following Lithuanian examples: the illative (e.g., *miškaĩ* ‘into the forest’ < acc. sg. **miškaĩ* + the postposition **-nā*); the adessive (e.g., *miškėp[i]* ‘near the forest’ < loc. sg. **miškė* + the postposition **-p[i]*); the allative *miškóp[i]* ‘towards the forest’ < gen. sg. *miško* + the postposition *-p[i]* (Zinkevičius 1980, 255-262). Each of these specifically Baltic cases derives from the addition of a postposition to an older case form. Particularly interesting in this regard is the allative. One might expect a genitive to denote motion away from, but in fact

¹ The idea has early roots in the study of the Indo-European languages. For example Düntzer (1868, 53) wrote: “Ein besonderer dativ neben dem locativ und ein instrumentalis waren den indogermanischen Sprachen vor ihrer trennung fremd, und ein bedürfnis dazu hat sich nie im griechischen und lateinischen gezeigt”.

as a result of the addition of the postposition *-p[i]* < **prie* ‘near, at’ the etymological meaning of the genitive is lost and the meaning of the new case is just the opposite of what one might expect.² I assume also that Indo-European word final etymological **-oN* (*N = m* or *n*) remained as such in pre-vocalic sandhi position, but passed to **-ō* in word final pre-consonantal sandhi position. Later these original automatic variants became phonemic when **-oN* began to appear again in pre-consonantal sandhi position (Schmalstieg 1980, 32; 2004, 5-6).³ As I have noted (2008, 104-105) various adverbial meanings could be expressed by the same postpositional minimorphemes, and conversely the same or very similar meanings could be expressed by different postpositional minimorphemes, leading to a vast panoply of historical possibilities. As a *parallel* I would note that the specifically Baltic innovation, the illative case,

² Haudry (1982, 43) writes that forms do not evolve in an isolated fashion, in a closed circuit. Their evolution is not only conditioned by their original constitution, but depends to a great degree upon their use, which can cause semantic changes which go as far as to reverse their meaning. Thus, for example, with its two occurrences of Latin *dē* and the old ablative-extractive suffix *-tus* the French word *dedans* ‘within’ (< *dē-dē-intus*) should, indeed, mean exactly the opposite, viz., *dehors* ‘outside of’. One might note also such an Italian expression as *dal dottore* ‘at the doctor’s’ with the preposition *da* ‘of’. Note the directly contrary meanings of the prefix Russian *ot-* and Lith. *at-* in the morphological cognates Russian *ot-ojti* ‘to move away from’ and Lith. *at-eiti* ‘to arrive’. Cf. also OCS *na* ‘on, to’ vs. Lith. *nuō* ‘from’ mentioned in fn. 7 below. The curious juxtaposition of genitive and locative case can perhaps also be explained by the fact that sometimes meanings can be completely reversed in the course of time. Note also the opposing meanings of the dative and instrumental (ablative) and (in my view) the neuter nominative and accusative singular where the **-o* stem neuter nominative singular is derived from the etymological instrumental use of **-oN* and the accusative singular from the etymological dative use of **-oN*, see Schmalstieg (1997, passim). It might seem odd that both the agent and the (etymological benefactive) patient could be expressed by the same case, but we have examples of just this in the attested Indo-European languages. In some constructions with the dative case it is not always immediately clear whether the dative expresses the agent or the indirect recipient of the action: ὥς μοι (dat.) πρότερον δεδήλωται (Her. 6. 123) means ‘as I showed previously’ rather than ‘as was shown to me’ (Benveniste 1971, 176). Likewise Russian *komu otpravil’ pis’mo?* is quite ambiguous in that the dative *komu* can be interpreted either as the potential performer or the potential indirect recipient of the action of the verb, viz. ‘who is to send the letter?’ or ‘to whom should one send the letter?’.

³ One notes that Hirt wrote (1927, 21): “Der Wechsel von den antretenden Partikeln *-om* und *-ō* ist ausserordentlich häufig... vgl. idg. **bhérō* ‘ich trage’ und *ébherom* ‘ich trug’, Instr. *div-ā* und Akk. *divam* usw.”. He also mentions such doublets as Skt. *sád-am/sád-ā* ‘always’, *satr-ām/satr-ā* ‘together’, *kath-ām/kath-ā* ‘how’, *itth-ām/itth-ā* ‘thus’, *nákt-am* ‘by night’, *ah-ā* ‘by day’ (Hirt 1927, 87). One notes that Homeric ἔγών ‘I’ occurs only before vowels and that it has been proposed that ἔγώ derives from **ἐγών* (Schmidt 1900: 406). Schwyzler (1959, 604), relying on Schmidt’s research, writes **ἐγὼν φέρω > ἐγὼ φέρω* ‘I carry’. Schmidt wrote (loc. cit.): “Jedesfalls glaube ich die herleitung von ἔγώ aus **ἐγών* so stark gestützt zu haben, wie dies für einen so alten vorgang überhaupt möglich ist”.

in addition to direction, may also denote time, manner, goal, condition, or even location, cf. Lithuanian: *kelintōn dienōn* (ILLATIVE SG.; = standard Lith. ACC. SG. *kelintą dieną*) *jis ateina?* ‘what day (ILLATIVE) is he coming?’; *varlės viena balsą* (ILLATIVE SG.; = standard Lith. INSTR. SG. *vienu balsu*) *kurkia* ‘the frogs croak with a single voice (ILLATIVE SG.)’; *pas jį Jōnas svečiūosna* (ILLATIVE PL.; = standard Lith. PREP. + ACC. *į svečius*) *išvažiavo* ‘Jonas departed for his place as a GUEST (ILLATIVE PL.)’; *visūs kvietkeliūs pavėrs šiēnan* (ILLATIVE SG.) ‘... will turn all the little flowers into hay (ILLATIVE SG.)’ (Zinkevičius 1980: 254-255). In dialects the morphological illative may even be used with locative meaning: *buvaũ miēstan* (ILLATIVE SG.) ‘I was in the city (ILLATIVE)’; *tuĩgun* (ILLATIVE SG.) *pirkaũ obuoliũ* ‘I bought some apples at the market (ILLATIVE)’ (Zinkevičius 1966: 201). Note also the uses of the illative encountered in early Latvian texts: (illative proper) *Ba[sniczan negays* ‘didn’t go to church’; (condition or manner) *Cziwo exkan Mere vnd wenan pratan* ‘live in peace and unanimity’; (place) *Wueffes, kattare Czetuīman gir* ‘everybody who is in prison’; (time) *tan nactin* ‘in that night’ (Vanags 1992: 38). Conversely different cases can be used to express the same or similar meanings, cf., e.g. Mažiulis (1970: 165, fn. 2): *šļ kartq* (ACC. SG.) *užtēks*; *šiām kartui* (DAT. SG.) *užtēks* ‘that will be enough (for) this time’, *tā kartq* (ACC. SG.) = *tuō kartū* (INSTR. SG.) ‘that time’, *laũkq (pievq)* (ACC. SG.) *ējo* = *laukū (pieva)* (INSTR. SG.) *ējo* ‘he went by way of the field (meadow)’, *vākarq* (ACC. SG.) = *vakarē* (LOC. SG.) = *vakariē* (ADVERB < OLD LOC. SG.) ‘in the evening’. Šukys (1976: 85) gives the examples: *vidurnaktj* (ACC. SG.), *vidurnakčiu* (INSTR.), *vidurnaktyje* (LOC. SG.) all of which mean ‘at midnight’.

The co-existence of various cases in similar functions can be explained according to Hopper (1991, 23): “The Principle of Layering refers to the prominent fact that very often more than one technique is available to serve similar or even identical functions. This formal diversity comes about because when a form or a set of forms emerges in a functional domain, it does not immediately (and may never) replace an already existing set of functionally equivalent forms, but rather that the two sets of forms co-exist”. In my view the assignment of a certain case function to this or that morpheme could well be a matter of chance, depending upon largely unrecoverable semantic developments in the history of the individual Indo-European languages.

Masculine (neuter) nominative singular. On the basis of the *-o* stem Lith. nom. sg. masc. *tās* (R - **tas*) and Slavic *tb* I assume for Sanskrit a nom. sg. **taḥ* (*tas*) which was replaced by *saḥ* (*sas*). Leskien (1876, 126) suggests that in the proto-language the double forms *sa – ta*, *sā – tā* might have existed side by side and he notes the parallel Gk. nom. pl. forms *τοί, ταί* (although Buck

[1933, 224] writes that *oi, ai* are analogical after the singular *ó, ĭ*). As a parallel one might compare the Slavic masc. nom. sg. *jb* ‘he’ which was for the most part (but not in the relative pronoun *jbže* ‘who, which’) replaced by the nom. sg. masc. *onb*, although the rest of the paradigm retains the old stem *j-* (sg. gen. *jego*, dat. *jemu*, etc.). The replacement of the nom. sg. **taĥ* (*tas*) by *sah* (*sas*) may also have been caused by the need to distinguish the **-o* stem genitive and nominative cases as Indo-European passed from a split ergative to a nominative-accusative language. In this language originally a single ergative case in **-s* functioned both as the agent of a transitive verb and as a genitive case. Zinkevičius (1966, 313) reports a southern High Lithuanian (*aukštaitish*) variant *tūs* apparently by analogy with the *-u* stem adjective *platūs* ‘wide’.

The Skt. nom. sg. neut. *tat* derives from **to + (d)t* (see Thumb-Hauschild 1959, 137) and Slavic *to* represents the etymological stem. Lith. *taĩ* is usually considered the nom.-acc. neut. of *tàs* (Fraenkel 1955, 1049). The morphological structure of *taĩ* remains, however, unclear. Schmidt (1889, 230) suggested that the form is a nom. pl. neuter in *-āi*, cf. the Latin neuter nom.-acc. pl. *quae* ‘which’. See the paragraph on the masculine (neuter) nominative dual below.

Masculine (neuter) genitive singular. In the nouns the distinction between the nominative and genitive was accomplished by the addition of the relative *-ya* to the old genitive (= nominative) ending *-as*, thus *devas-ya* ‘of god’. According to Haudry (1982, 34) “Si la forme ancienne du génitif de la flexion thématique était en **-os*, l’élément qui suit dans la plupart des dialectes indo-européens de forme **yo* ou **o*, ne peut être une marque de génitif: c’est le distanciateur, qui a servi à bâtir des ‘formes longues’ de génitif... peut-être pour opposer de véritables syntagmes aux quasi-composés que tend à constituer le génitif avec son déterminé, sûrement pour distinguer la forme du génitif de celle du nominatif”. A parallel would be furnished by such an example as Lith. *diėvo-jis mēdžias* ‘god’s forest (lit. ‘the forest which [is] of god)’ in which *diėvo* is the genitive singular of *diėvas* ‘god’ but *jis* ‘he, it’ is the masculine nominative singular of the pronoun (Zinkevičius 1966, 281). In Lithuanian other cases in addition to the genitive case may serve also as the stem to which the definite pronoun may be attached, cf., e.g., from Daukša’s Postilla *danguiėjis ukinikas* ‘heavenly farmer (i.e., God)’, i.e., **dangujė* (loc. sg.) + *jis* (nom. sg.) *ūkininkas*, ‘the farmer which [is] in heaven’ (Zinkevičius 1981, 33). In Indo-Iranian the **o*-stem ending *-asya* spread to the pronouns to give, e.g., the Sanskrit masc.-neut. gen. sg. *tas-ya*.⁴ In Baltic and Slavic the old ergative **tos*

⁴ Not only was the Skt. **-o* stem gen. sg. ending *-as* extended by the pronoun *-ya*, but also the **-o* stem masc.-neut. dat. sg. ending **-ā-ya*, cf. e.g., *āsiñcam ūtsaṃ Gōtamāya trṣṇāje* ‘they poured

became the nominative case and the genitive was replaced by a new form, in Baltic by (R - **tā*) > Lith. *tõ* and in Slavic by *togo*, the origin of which is not clear. Vaillant (1958, 368-369) writes that Slavic *-ogo* is a ‘*désinence énigmatique*’ and that “La seule donnée sûre est que *-ogo* a pris la place d’un balto-slave **-asa* ou **-esa*”.

Masculine (neuter) dative singular. According to Hirt (1927, 28): “Man darf voraussetzen, dass es zusammengesetzte Pronomina auch schon im Idg. gegeben hat...”. Following Hirt I propose here that there already existed in Indo-European the derivation of definite adjectives and pronouns, a procedure repeated in Lithuanian, cf. masc. sg. nom. *tas-aĩ*, gen. *tõ-jo*, dat. *tá-jam*, acc. *tã-jĩ*, etc. (LKG I, 665). As Zinkevičius (2002, 273) has clearly shown, the unification of the pronoun with the adjective was not a single event at one period of history, but took place by degrees over a long period of time. Since in the recorded history of Lithuanian the creation of definite forms has been a continuing process I suggest that the existing Slavic, Indo-Iranian and Baltic pronominal and adjectival paradigms contain both etymologically simple and etymologically definite forms. Thus the Lith. nom. sg. form *tas*, Slavic *tъ* was a simple non-definite form of the pronoun. On the other hand, similar to the Lith. masc. dat. sg. *tá-jam* (usually derived from **tam-jam*, but see fn. 6 for an alternative explanation) there may have been an Indo-European definite oblique case **tom-om* (with its sandhi variant **tom-ō*). The form **tom-om* would have given Slavic **tom-ō* [-̃], which, in following the model of the noun in unstressed paradigms where the nasalization in the **-o* stem masculine-neuter dative singular ending *-ō* [-̃], was lost, led to the existing form *tomu*.⁵ The Greek article masc.-neut. dat. sg. τῷ ‘(to) the’ in my view contains a

out the spring for the thirsty Gotama (i.e., the spring *which [is] for the thirsty Gotama*)’ (RV I 85. 11 quoted from Macdonell 1917, 29); *yá vah śárma śasamānāya śánti* ‘The shelters which you have for the zealous man (i.e. the shelters which you have *which [are] for the zealous man*)’ (RV I 85. 12 quoted from Macdonell 1917, 30).

⁵ The Slavic **-o* stem dative singular ending *-u* derives from nasalized **-ō* [-̃] (< **-um* < **-om*) which in Indo-European existed only in prevocalic sandhi position, but was generalized in Slavic to pre-consonantal position as well and with loss of the nasalization in stem-stressed paradigms. This denasalized *-u* was then spread to all the **-o* stem paradigms regardless of stress pattern. The paradigmatic denasalization could have a partial parallel in the situation described by Zinkevičius (1966, 77) for certain western Lithuanian dialects (Klaipėda region, etc.) in which the loss of a final nasal might possibly be conditioned by lack of final stress. Here the gen. pl. *šākūn* ‘(of the) branches’ (with final nasal) alternates with *šākū* (without final nasal). Both variants occur without final stress, but the second variant is more characteristic of the younger generation and in places has completely replaced the first variant. There is also a variant *šākūm* which might have been generalized from position before the labials *p* or *b*, according to Zinkevičius (loc. cit.).

contamination of the endings *-oi* and *-ō*.⁶ This contamination of **-oi* and **-ō* (< **-oN*) is also encountered in the final syllable of Lith. *tamui* < **tom-ōi*. In the Skt. masc.-neut. dat. sg. *tasmai* we encounter the phenomenon *hypostase* ‘hypostasis’. According to Haudry (1982, 41): “On nomme hypostase le fait de traiter une forme fléchie ou adverbialisée comme une base de flexion ou de dérivation”. An example of this would be the use of the nominative of the adjective or pronoun to which another case ending is added to form the definite adjective. Zinkevičius (1966, 283) gives some examples in which the indefinite adjective nominative case serves as a stem to which other case endings are added, e.g., *šī pirm-às-ī jósim in karūžę... mēlyn-às-ī pas jáuną mergūžę...* ‘We shall ride this first one into war... the blue one to the young girl’. Note the addition of the definite acc. sg. ending *-ī* to the nom. sg. forms *pirm-às-* ‘first’ and *mēlyn-às-* ‘blue’ (with stress as in the definite nom. sg. *pirm-às-is*, *mēlyn-às-is*). I propose then that the dat. sg. masc. *tasmai* is remodeled from **tamai* on the basis of the reconstructed nom. sg. masc. **tas*. The form *tasmai* then derives from etymological **tam-āi* < **tom-ōi* which, as in the Lithuanian masc. dat. sg. *tam-ui*, is a result of the contamination of **tom-oi* with **tom-ō*, reconstructed by Rosinas (1995, 90) as **tamō/i/ei*. It is interesting to note that the Old Prussian masc.-neut. dat. sg. pronoun *stesmu* also has the hypostatic stem from the nom. sg. masc. *stas*, a form which probably results from a

⁶ According to Buck (1928, 82), in addition to the *o*-stem dat. sg. *-ō*, encountered in most Greek dialects there is also *-ω*. Buck writes further that one encounters *-oi* in Arcadian, Elean, Boeotian and in later inscriptions from Northern Greece. In addition he writes: “In Euboea *-oi* replaces earlier *-ωi* and may be derived from it... But in general *-oi* is rather the original locative (cf. *οἴκοι*) in use as the dative”. I propose rather that *-oi* and *-ω* were morpheme alternants and that the contamination of the two endings led to the creation of *-ō*. The appearance of the new ending *-ō*, led to the specialization of *-oi* in Greek in locative function in some words. The etymological primacy of dat. sg. *-oi* is supported by the existence of the dat. pl. *-οις*. I note that already in 1923 Būga (1961, 673) registered the Lithuanian Debeikiai dat. sg. **-o* stem forms *tam vŕrai* ‘to that man’ and *duok paršai* ‘give to the pig’ suggesting that the Baltic dative singular might have been represented both by **-oi* and **-ōi*. Būga mentions also Greek Boeotian dialect forms similar to those mentioned above. One might note the possible Old Prussian dative singular nominal ending in the expression *en stesmu wirdai* ‘in that word’, with the ending used here in its locative meaning. See Mažiulis (1970, 136) and Rosinas (1995, 77). Perhaps there may also be dispute about the Lithuanian forms, see Zinkevičius (1966, 208), but I would note Mažiulis’ (1970, 160) connection of the Lith. masc. instr. pl. ending *-ais* with the Gk. **-o* stem dat. pl. ending *-οις*, thus Gk. *σὺν φίλ-οις* = Lith. *su draug-ais* ‘with friends’. Since we see in the Greek and Lithuanian cases the addition of *-s* to form the plural, an original Lith. dat. sg. *-ai* = Gk. *-oi* would seem quite possible. One might also wonder whether the initial element of such a definite form as Lith. dat. sg. masc. *tá-jam*, which is usually derived from **tam-jam*, might not hide an original element **táj-* which would be cognate with the *-ai* in *vŕrai* and *paršai*.

combination of **so-* (cf. Gk. *ó*, Skt. *sas*, etc.) plus **tas*, cf. Lith. *šitas* < *šis* – *tas*. The assumption of hypostasis in Indo-Iranian and Old Prussian removes the necessity of positing a formant **(s)m-* in the pronoun.

Masculine accusative singular. The Lith. acc. sg. *tã* (R - **tan*), Slavic *tъ* and Skt. *tam* can all be easily derived from Indo-European **tom*. The neuter accusative singular is homonymous with the neuter nominative singular.

Masculine (neuter) instrumental singular. The Lith. instr. sg. *tuo* derives from **tõ* (likewise R) < ***tom*. An interesting example of the more or less contemporary contamination of endings is provided by the dialect Lith. *tuo-mi* where the final *-mi* apparently comes from other stems with the instr. sg. ending *-mi* (Rosinas 1995, 125-127). Zinkevičius (1966, 314) lists the variants *tuõ*, *túo*, *túoj* and *tu*. The morpheme alternant *t-oi(-)* is encountered in the instr. sg. Skt. *te-na* and OCS *tě-mb*. To the OCS stem *tě-* < **toi(-)*, an instrumental ending *-mb* < **-mi* has been added just as in the Lith. dialect *tuo-mi* noted above. In the Skt. *te-na* the particle *-na* has been added to the same stem **toi(-)*.

Masculine (neuter) locative singular. Zinkevičius (1981, 8-9) writes that the Lith. loc. sg. *tam-è* derives from **tam-é* in which the final syllable derives from the postposition **én*. I assume that **én* has been added to the original acc. sg. **tam* (as was done in the plural) and originally had illative meaning which came to denote location as in the Lithuanian dialect and Old Latvian examples mentioned above. The original meaning was probably directive (to that place), which later came to be interpreted as denoting location. The dialect use of *tam-è* to modify a feminine noun is also encountered, e.g., *tamè trobõ(je)* ‘in that hut’ according to Zinkevičius (1966, 240, 314). Rosinas (1995, 90) reconstructs **tamõ/i/ei*, homonymous with the dative singular. The element **-i(-n)* may well originally have had directive meaning also, in which case the Slavic *tomъ* and Skt. *tasmin* derive from **tom-i-n*, in Slavic with the loss of final **-n* in word-final position (as in the *-i* stem acc. sg. *-b* < **-iN*) and in Sanskrit with the hypostatic **tas-* from the etymological nominative singular.

Masculine (neuter) ablative singular. The Skt. masc.-neut. abl. sg. *tasmāt* derives from **tasmā* < **tom-ō* (with hypostasis and showing the original identity of the dative and ablative cases). The dental element was added to the old dative case **tasmā* to give *tasmāt* just as in Latin the *-d* was added to the old **-o* stem dative case ending to separate the ablative from the dative. In Sanskrit, however, the dative received the additional component *-i* to mark more clearly the distinction between dative and ablative.

Masculine (neuter) nominative dual. The masc. nom.-acc. dual Skt. *táu* reflects the influence of the numeral *dváu* ‘two’. I would reconstruct an earlier **tā*, the element **-ā* reflecting the same form as in the old instrumental singular *yajñā* ‘sacrifice’ (Thumb-Hauschild 1959, 32). The instrumental singular could

have gained dual meaning in an expression such as **vīros (sun) vīrō* ‘man with a man’ in which the first elements are omitted to give just **vīrō* ‘two men’. Vaillant (1958, 314) has suggested that such an expression as **d(u)wō(u) wlk̑ō* ‘two wolves’ could originally have meant ‘two with a wolf’. The elliptic dual of Skt. *Mitrā* ‘the two Mitras, Mitra and Varuna’ might originally have meant something like ‘the other one with Mitra’, see Schmalstieg (1998, 180). Likewise the Lith. masc. nom.-acc. dual *tuō-(du)* shows the same origin as the masc. instr. sg. *tuō (tuo)*. Zinkevičius (1966, 316) lists also the variants *túodu* and *tùdu*. In principle in monosyllabic words an acute turned into a circumflex, whereas in polysyllabic words it became a short stressed vowel in word-final position, thus *túo > tuō* and **kituō > kitù*, on analogy to which one encounters *tù(du)*. The Slavic masc. nom.-acc. dual *ta* derives from **tō* and is cognate with the Baltic form, thereby suggesting that in Slavic also **tō* could have functioned as an instrumental singular form at an earlier epoch. An etymological non-singular stem **toi* may have been originally the same for all three genders, but when the new dual **tō* was created for the masculine pronoun the form **toi* was specialized in plural function for the masculine gender. On the other hand the neuter nom.-acc. dual Slavic *tě* and Skt. *te* also derive from **toi* and merely adopted the dual meaning under the pressure of the neut. nom.-acc. pl. Slavic *ta*, Skt. *tāni*. Similarly the fem. nom.-acc. dual Slavic *tě* and Skt. *te* may also derive from the stem form **toi* (like the neuter) and have adopted dual meaning under the pressure of the fem. nom.-acc. pl. Slavic *ty*, Skt. *tās*. For another possibility see the paragraph on the **-ā* stem dual below. Perhaps the nom.-acc. dual forms Slavic *tě* and Skt. *te* are cognate with Lith. *taĩ*.

Masculine (neuter) genitive-locative dual. The Lith. gen. dual *tū (dviejų)* except for the final (*dviejų* ‘[of] two’) does not differ from the gen. plural. The Slavic gen.-loc. dual *toju* was created under the influence of the gen.-loc. *dъvoju* ‘two’ and the Sanskrit counterpart *tayoh* under the influence of the gen.-loc. *dvayoh* ‘two’. Both the Slavic and Sanskrit forms consist of the stem **toi-* plus the ending **-e/ous*. The expression of genitive and locative by the same form might seem odd, but perhaps it is connected with the possible expression of contrary meanings by the same form, see fn. 2.

Masculine (neuter) dative-instrumental dual. The stem **toi* is also encountered in the Lith. masc. dual dat. *tiem(dviem)* and instr. *tiēm(dviem) < *toi-m-*. Stang (1966, 183) writes that the final vowel of the Lith. dual dat. ending *-ámā^x*, instr. *-amā^x* cannot be established with certainty. Dual forms with *-mu* and *-mi* may have been back formations from dat. plurals in *-mus* and instrumental plurals in *-mis* according to Zinkevičius (1966, 205-206). Zinkevičius (loc. cit.) reports that in the southeastern portion of Lithuania there have remained the oldest plural (and, of course, dual, since here they are not

distinguished) dative and instrumental forms with *-mu* (mostly dative) and *-mi* (mostly instrumental) and *-ma* (both cases). One might surmise that **toi-m-u* or **toi-m-i* (cf. dialect *tiemi* [LKG I, 654]), as in the dialect described by Zinkevičius, were originally not distinguished as to dual or plural, but when a final *-s* was added to produce **toi-m-u-s* or **toi-m-i-s* the original **toi-m-u* and **toi-m-i* were restricted to dual function. The Slavic masc.-neut. dat.-instr. *těm-a* shows the same stem **toi-m-*, with a final element perhaps deriving from the masc.-neut. dual nom.-acc. *-a*. Superficially a connection of Lithuanian **toim-a* with Slavic *těm-a* would seem possible, but this would seem to require the positing of an etymological Lith. **toim-ā* with shortening of the final **-ā*, since Slavic **/a/* usually corresponds either to Baltic **/ō/* or **/ā/*, which would be represented by Lith. */uo/* and */ō/* respectively, not Lith. */a/*.

Masculine (neuter) nominative plural. As noted above the original non-singular (undifferentiated as to plural or dual status) **toi* (R - **tei*) (> nom. pl. Lith. *tiẽ*, Slavic *ti*) gained nominative plural status when the new dual **tō* (> Lith. *tuo*, Slavic *ta*) was introduced from the instrumental singular **tō*. The nom. pl. masc. Skt. *te*, Lith. *tiẽ* (R - **tei*) and Slavic *ti* all may reflect a proto-form **toi*. Zinkevičius (1966, 311, 315) lists also the Lith. forms *tie*, *tiej*, *ti*. The neut. nom.-acc. pl. Slavic *ta*, Skt. *tāni* both seem to represent a form **tā(-)*, specialized in the plural function as opposed to the form **toi*, relegated, as noted, to the dual function. The **-o* stem adjective-noun nom. pl. masc. **-ōs* derives from the addition of **-s* to the dual ending (Schmalstieg 1980, 79). In addition to the well attested Skt. *-āḥ* one also encounters *-ās-ah* (Thumb-Hauschild 1959, 35). This may have had its origin in a definite adjective in **-ōsōs* > **-āsās* with a subsequent shortening of the final vowel on analogy with the consonant stem noun nom. pl. ending *-as* to give *-āsas*.

A *partial analogy* may be provided by the Lith. **-ā* stem *feminine* nom. pl. definite adjective *báltosios* ‘white’, also dialect *báltojos* (Zinkevičius 1966, 289, 291). The definite adjective declensional ending was then transferred to the noun also.

Masculine (neuter) genitive plural. I propose an etymological **-o* stem gen. pl. ending **-oN* (similar to the acc. sg. ending) as attested in Old Latin *deum* ‘(of) gods’ later replaced by *deōrum*.⁷ This etymological **-oN* became

⁷ Bezenberger (1878, 134) suggested that the Indo-European genitive plural and accusative singular were originally the same and that the final *n* derives from *na*, eventually from *ana* the meanings of which have all the spatial relationships which are expressed by the accusative and genitive, cf. Gk. *ἀνά* ‘on; up’, Gothic *ana* ‘on’, OCS *na* ‘on, to’, Lith. *nuō* ‘from’, Bezenberger’s notion does not explain, however, the occurrence of final *-m* in the accusative singular and genitive plural endings in Latin and Indo-Iranian. But as Haudry (1979, 18) writes: “En finale absolue, les

contaminated with its automatic sandhi variant $*-\bar{o}$ to produce $*-\bar{o}N$ (phonologically similar to Homeric ἔγων ‘I’, see fn. 3). The Lith. gen. pl. *tũ* and Gk. τῶν derive directly from $*t\bar{o}N$ (R - $*t\bar{o}n$). The Sanskrit gen. pl. *tēsām* derives from the stem $*toi-$ plus the plural marker $*-s-$ plus the etymological genitive marker $*-\bar{o}N$. The Slavic gen. pl. *těxъ* may also derive from $*toi-s-u$ < $*-uN$ < $*-oN$ < $*-\bar{o}N$ or perhaps the final $*-u$ is merely a marker of genitive-locative meaning.

Masculine (neuter) dative plural. The Skt. dat.-abl. pl. *tēbhyaḥ* derives from $*toi-bhi-es$. Probably, as in the dual, the dative, ablative and instrumental plural cases were originally not distinguished. The Balto-Slavic masc.(-neut.) dat. pl. derives from the non-singular stem $*toi-m-$. As noted above the Baltic non-singular $*toi-m-u$ was supplied with $*-s$ to distinguish the plural from the dual. The Lith. masc. dat. pl. *tiems* apparently derives directly from $*toi-m-u-s$. (R - $*teim\bar{o}s$). Zinkevičius (1966, 315) reports the dialect $-i$ stem forms *tīmi* and *tīms* and the form *tēms* (< *tiems*?). Since final $*-s$ was lost in Slavic it is impossible to determine whether $*toi-m-u-s$ ever existed in that language. In any case $*toi-m-u(-s[?])$ passed to *tēmъ* which was then distinguished from the dat.-instr. dual form *tēm-a*, in which the old nom.-acc. dual ending $-a$ was added to the stem *tēm-*.

Masculine accusative plural. For the $*-o$ stem accusative plural I propose an original ending $*-oNs$ which, with loss of the nasal and lengthening of the preceding vowel, passed to $*-\bar{o}s$. On the basis of the singular accusative $*-oN$ the form $*-oNs$ was frequently reconstituted, such that some languages show the reflex of the old $*-\bar{o}s$, whereas others show the reconstituted $*-oNs$. For the Slavic *ty* I would reconstruct $*tons$, but for Lith. *tuōs* I would reconstruct $*t\bar{o}s$ (= R $*t\bar{o}s$). Zinkevičius (1966, 310, 316) reports a Samogitian (žemaitish) *tus*

langues indo-européennes n’ont originellement qu’une nasale; soit $*n$, soit $*m$, qui paraît être la forme originelle”. Now the assimilation of a nasal to the place of articulation of a following consonant is a very common phenomenon observed in many languages, cf., e.g., Lat. *con-demno* ‘I condemn’ (< $*com-demno$), *im-modestus* ‘unrestrained’ (< $*in-modestus$) (Baldi 1999, 276-277). A similar independent assimilation of n to m before a labial consonant is observed in Lithuanian, as in *sámbrūzdis* ‘fuss’ < $*sánbrūzdis$, cf. *sán-taika* ‘harmony’ (Zinkevičius 1980, 142). Perhaps when word-final $*-oN$ became possible again in pre-consonantal sandhi position (originally, of course, only existing in etymological pre-vocalic sandhi position), the automatic distribution of final $*-on$ (before dentals) and $*-om$ (before labials) began to occur. In some Indo-European languages the final $*-m$ was generalized (e.g., Indo-Iranian and Latin) and in others a final $*-n$ (e.g., Greek and Baltic). See fn. 5 where the Lithuanian dialect sandhi variants gen. pl. *šākūn* and *šākūm* are mentioned. The final $-m$ in the Lithuanian dialect genitive plural certainly does not extend back into Indo-European times, but rather gives an idea of what could have occurred independently in Latin and Indo-Iranian.

(apparently on the model of the adjective acc. pl. *báltus* ‘white’). Skt. *tán* is taken from the adjective-noun form which, in turn, results from the analogy with the nom. sg. *deváh* : acc. sg. *devám* :: nom. pl. *devāḥ* : acc. pl. *devān* (possibly according to acc. sg. *deván* from sentence sandhi before *t* or *d*), see Thumb-Hauschild (1959, 35-36). The neuter accusative plural is identical with the neuter nominative plural.

Masculine (neuter) instrumental plural. The Gk. dat. sg. masc. τῷ derives from a contamination of **tō* and **toi* (cf. fn. 6). A plural of this form would be **tōis* corresponding exactly to the Skt. instr. pl. *tāiḥ*. According to Thumb-Hauschild (1959, 141) in the Rig Veda one encounters in the pronoun exclusively *té-bhiḥ* whereas the noun shows the coexistence of the endings *(-e)-bhiḥ* and *-āiḥ*. The nominal ending *(-e)-bhiḥ* is evidently borrowed from the pronoun. Thumb-Hauschild write, however, that it is doubtful that the *-e-* comes from the nom. pl., although it is not clear to me why *té* < **toi(-)* could not be a hypostatic form. See also Hirt (1927, 99) and Schmidt (1881, 5). After the time of the Rig Veda the nominal ending *-āiḥ* penetrates the pronominal declension and is generalized in classical times according to Thumb-Hauschild (1959, 141). Lith. *taĩs* is reconstructed as **toi-s* (R - **tais*), whereas Slavic *těmi*, shows the same stem **toi-* plus the oblique ending **-m-* plus the morpheme **-ī*. Zinkevičius writes (1966, 235-236) that in the northern part of the Eastern High Lithuanian *panevežiškiai* area there was a contamination of the dat. pl. *výram* ‘(to the) men’ with the instr. pl. *výrais* > *v’í res*, which produced *v’í rem*. This form, in turn, could have either dative or instrumental plural meaning, but mostly the latter, e.g., *tėm g’erėm v’í rem* ‘tais gerais vyrais, (with) those good men’.

Masculine (neuter) locative plural. The **-o* stem locative plural Lith. *tuosė* is apparently derived from the addition of the postposition **-én* to the acc. pl. ending **-uos* (Zinkevičius 1980, 212). The Lith. dialect forms *tuōsu* and *tuosù* are also encountered (Rosinas 1995, 61). Kazlauskas (1968, 177) writes that the locative *miškuosu* ‘(in the) forests’ is a result of a contamination of the forms *miškuose* and **miškeisu*. Since the accusative case is at the base of the locative plural case here (similarly to the locative singular, q.v.), I assume that the original meaning was that of directive or object of motion, later reinforced by the postposition **-én* which originally presumably denoted also the object of motion. In the course of time this came to function as a locative, just as did the new illative in the Lith. dialect *miėstan* ‘in the city’ and early Latv. *Czetūman* ‘in prison’ mentioned above. The Skt. locative plural *teṣu* like Slavic *těxъ* derives from the stem **toi-* plus **-s-u*. This could be understood as deriving from a singular locative **toi* plus the pluralizing *-s-* plus the locative *-u* (Toporov 1961, 278). Differently from Slavic, Sanskrit separated the genitive from the locative and produced the genitive plural form *téṣām* (q.v.).

Feminine nominative singular. The so-called **-ā* stem nouns and adjectives derive from the short stem vowel **-a* plus **-i* to give word-final **-ai* (**-ay*) which within Indo-European remained as such (in etymological prevocalic sandhi position) or merged with **-ā* (in etymological pre-consonantal sandhi position). In other words ***ai + V[owel] > *-ai* (**-ay*) (i.e., no change), whereas ***ai + C[onsonant] > *-ā* (Schmalstieg 1980, 25-28). The originally phonologically conditioned variants **-ai* (**-ay*) and **-ā* came to contrast in some positions, just as did **-oN* and **-ō*. The passage of /ai/ to /ā/ is a fairly common type of monophthongization, cf. Old English *stān* ‘stone’ with Gothic *stains* (Prokosch 1939, 106) or the Lithuanian dialect form *b’ernát’is* for standard Lithuanian *bernaitis* ‘lad’ (Zinkevičius 1966, 91). Originally both the sandhi alternants **-ai* and **-ā* had instrumental and dative meaning (similarly to **-oN* and **-ō*). As a result of the instrumental meaning **-ai* and **-ā* could both appear in the nominative case, cf. Lat. nom. sg. fem. *quae* ‘which’, *haec* ‘this’, *istae* ‘that’. The proximity of meaning of the **-ā* stem instrumental (= Latin ablative) and nominative has been noted by Haudry (1977, 449) who compares the Latin sentences *miles sagittā* (abl. sg.) *hostem vulnerat* ‘the soldier wounds the enemy with an arrow’ and *militis sagitta* (nom. sg.) *hostem vulnerat* ‘the soldier’s arrow wounds the enemy’. (The short vowel *-a* of the nominative singular could be a result of the generalization of the short vowel occurring in those nouns where the iambic shortening rule took place, e.g., **aquā > aqua* ‘water’ [Baldi 1999, 318] or perhaps the short vowel merely derives from the stem **-a* [without the final **-i*]). The old identity of the **-ā* stem nominative and instrumental singular cases is recorded also in Sanskrit, where the instr. sg. forms *doṣā* ‘in the evening’ and *jihvā* ‘tongue’ are encountered (Thumb-Hauschild 1959, 45). Cf. also Old Av. *Daēnā* ‘view’ which serves as both nominative and instrumental singular (Hofmann-Forssman 1996, 121). The pronouns are then Skt. *sā* (replacing **tā*), Slavic *ta*, Lith. *tà* (R - **tā*). Rosinas’ reconstruction could be valid for Indo-Iranian as well as Balto-Slavic.

Feminine genitive singular. The **-ā* stem feminine genitive singular is represented by Lith. *tōs*, OCS *toję*, Old Russian *tojě* and Skt. *tasyāḥ*. The Lithuanian form *tōs* shows merely the addition of *-s* to the stem **tā-* (R - **tās*). The OCS fem. gen. sg. *toję* and Old Russian *tojě* both presuppose the stem **tai-* plus the anaphoric pronoun **(j)ens* (> OCS *ję*, Old Russian *jě* or *ja*). The nasalization was retained in OCS but lost in Russian. The origin of the nasalization in the genitive singular may be completely analogical. In Slavic the word-final sequence **-jans* developed a denasalized allegro form **-jās* (as in the definite **-jo* and **-jā* stem acc. pl. where **jansjans > *jansjās*). As a result this ambiguous final sequence could be reinterpreted as an underlying **-jans* in normal discourse, so that an etymological word-final **-jās* could be

replaced by **-jans* > **-jens* with raising and fronting of the **-a-* following **j-* and eventually **-jens* passed either to **-je* (as in OCS) or to **-jě* (as the third *jat* in Old Russian), see Schmalstieg 1971, 141-145 and 1986, 50-52. The Skt. fem. sg. gen.-abl. *tasyāḥ* may derive from **tajās* (like Slavic), see Thumb-Hauschild (1959, 138), with hypostasis from the masc. nom. sg. **tas*. An alternative explanation would be to compare Skt. *tasyāḥ* with the Lithuanian definite form *tōsios* (LKG 665) from **tāsĵās*, which would differ from the Skt. form only by the length of the vowel of the first syllable.⁸ The short vowel of the initial syllable may then be explained here also as a result of hypostasis of the etymological nom. sg. masc. **tas*.

Feminine dative singular. The Lith. fem. dat. sg. *tai* retains the stem form, but has the definite form *tājai*, which can be compared with Slavic *toji* < **tājai* < **tājāi*. Skt. *tasyai* also derives from the definite form **tajāi* with assimilation to the nom. sg. masc. **tas* through hypostasis. The final syllable derives from a contamination of the endings **-ai* and **-ā* which resulted in **-āi* similarly to the masculine-neuter dative singular described above.

Feminine accusative singular. The fem. acc. sg. form represented in Skt. *tām* seems to derive from the addition of *-m* to the stem *tā-* and could be equivalent to a proto-form for Lith. *tą* with the acute (R - **tān*) and Slavic *tq* (ж).

Feminine instrumental singular. The Lith. fem. instr. sg. *tą* with the acute differs from the acc. sg. *tā* with the circumflex only by intonation and according to Mažiulis (1970, 309-310) the difference in the accentuation between the

⁸ As mentioned above, I assume that the system of definite adjectives was known already in the Indo-European proto-language. My colleague Prof. George Cardona writes (personal letter dated 11 April 2009): "There can be no doubt that **-yāyās* is the Indo-Iranian genitive singular of the type Skt. *priyāyāḥ* ('dear'), *kanyāyāḥ* ('girl'), *senāyāḥ* ('army'); cf. Av. *daēnaitiā's-ca* ('view'), O(ld) P(ersian) *taumāyā* ('family')". This is an innovation in Indo-Iranian since the archaic *-ās* is attested, e.g., in the RV *gnāspāti-* 'husband of a divine woman' (Wackernagel-Debrunner 1975, 119). In my view the Sanskrit adjective fem. gen. (-abl.) sg. *priy-āyāḥ* 'dear' might have its origin in the restructuring of an old definite form **priy-yās-yās*. One could compare the Lithuanian dialect **-ā* stem definite fem. gen. sg. *marg-ōjos* 'variegated' for standard Lith. *marg-ōsios* (Zinkevičius 1966, 282). The Lith. dialect fem. gen. sg. (*marg*)-*ō-jos* corresponds phonologically and morphologically exactly to the Skt. fem. gen. (-abl.) sg. (*priy*)-*ā-yāḥ*. The Lith. dialect fem. dat. sg. (*marg*)-*ōjai* also corresponds phonologically and morphologically exactly to the Skt. fem. dat. sg. (*priy*)-*yājai*. Concerning this Lithuanian dialect Zinkevičius (1966, 282) writes that from the paradigms given one sees an evident tendency to align the other cases to the more commonly used nominative singular, thereby replacing the initial element of the forms of the other cases with the vowel *o* which along with the *j* tends to form a special suffix *oj*. This seems to correspond to the notion of hypostasis as proposed by Haudry. I doubt that the exact phonological and morphological correspondence shown by the Lithuanian dialect and Sanskrit **-ā* stem genitive and dative singular forms stretches back to Indo-European times. On the other hand I propose that the morphological

accusative and instrumental is due to the influence of other nominal stems. Zinkevičius (1966, 310) lists also *tāj* with the acute. Rosinas (1995, 91) reconstructs, however, **tān* for both the accusative and the instrumental cases. Slavic *toj-ŏ* [тѣ] and Skt. *tay-ā* both retain the original stem **tai-* to which the etymological variants of the ending *-ŏ* (ѣ) (directly from **-am* with retention of the nasality in the case of Slavic) and *-ā* (eventually from **-am* in etymological pre-consonantal sandhi position with loss of the nasality and lengthening of the vowel in the case of Sanskrit) have been added.

Feminine locative singular. The Lith. fem. loc. sg. *tôje* was created by the addition of the particle *-je* to the stem to differentiate it from the dative singular with which it was originally identical. The Slavic fem. loc. sg. *toji* is identical with the dat. sg. *toji* discussed above. The Sanskrit **-ā* stem loc. sg. *tasyām*

procedure may have been the same both in the Lithuanian dialect and ancient Indo-Iranian. The Sanskrit forms may result then from the hypostasis of the fem. nom. sg. stem *priyā-*. I suggest further that in Indo-Iranian the difference between the definite and indefinite adjectives was lost and the definite forms enumerated above were incorporated into the single adjectival declension. (Similarly in modern Russian the indefinite form of the modifying adjective has been largely lost, typically occurring only in certain fixed expressions, such as *sred' bela dnja* 'in broad daylight,' *na bosu nogu* 'with bare feet,' etc. The original indefinite form of the adjective may also be used in the nominative case in predicate position). The adjectival cases created thus were then sometimes transferred to the noun declension, cf., e.g., the Skt. fem. sg. dat. *śenā-yai* 'army,' gen.(-abl.) *śenā-yās*, loc. sg. *śenā-yām*. The transfer of pronominal or adjectival endings to nouns is a fairly common phenomenon, cf. the Latv. dat. sg. masc. *cilve,k-am* '(to the) man' with the ending from the pronoun *t-am* 'to that' or the adjective *lab-am* 'good' (Endzelīns 1951, 397). The **-o* stem Skt. gen. pl. ending *-ānām* (cf. *priy-ānām* 'dear' [Macdonell 1916, 77]) may also have its origin in an old definite adjective, cf. the Lith. definite gen. pl. *gerių* '(of the) good' which is thought to derive from **geruonjuon* (Stang 1966, 184, 272), the gen. pl. ending **-ōn* plus the gen. pl. pronoun **-jōn*. Wackernagel-Debrunner (1975, 512) write: 'Sicher grundsprachliches Erbgut sind die Stämme *a-* und *i-*'. One may perhaps reconstruct for the pronominal stem *a-* a gen. pl. form **-āN* eventually replaced by *eśām* (Wackernagel-Debrunner 1975, 517). This pronominal **-āN* may have then been added to an original indefinite adjective (**priy-ān*) to produce the definite adjective **priy-ān-āN*. In Indo-Iranian the etymological definite adjective ending *-ānām* may then have been passed on to the nouns, thus Skt. *dev-ānām* '(of) gods.' Wackernagel-Debrunner (1975, 108) suggest that the old monosyllabic **-o* stem genitive plural ending has been retained in the sacred phrase *devān janma* 'race of gods' (RV 1,71,3; 6, 11, 3). According to Bezzenberger (1878, 133) the Skt. gen. pl. *carath-ānām* '(of the) moving, living' derives from earlier **carath-ānān* where the final *-n* is original (as in *devān* quoted above) and reflects a doubling of the original ending. Differently from Bezzenberger I attribute the doubling of the final syllable in Indo-Iranian to the influence of an original definite adjective. The problem of the replacement of the final **-n* by *-m* is discussed in fn. 7 above. Another example of the doubling of the ending is encountered in the Rīg Veda (1,129, 4e) *pr̥tsūsu* in which a second locative ending is added to an original well attested locative *pr̥tsū* 'in the battles,' although this does not seem to be related to the creation of a definite adjective (Wackernagel-Debrunner 1975, 79).

presupposes an earlier **tay-ām* with hypostasis of the nom. sg. masc. **tas*. The element *-ām* is identical with the ending of the acc. sg. *t-ām* and one is reminded of the Lith. masc. loc. sg. *tamė* in which one recognizes the etymological masc. acc. sg. **tam*.

Dual or plural cases, marked for number, sometimes do not distinguish stem classes or gender characteristic of the singular number. For example, in modern Russian the etymological **-ā* stem dative, instrumental and locative plural noun endings have replaced the etymological **-o* stem endings. Thus on the model of the etymological **-ā* stem nouns (pl. dat. *ruk-am* '[to the] arms', instr. *ruk-ami*, loc. *ruk-ax*) the modern Russian pl. dat. *gorod-am* '[to the] cities', instr. *gorod-ami*, loc. *gorod-ax*, replace respectively Old Russian **-o* stem endings pl. dat. *gorod-omъ*, instr. *gorod-y*, loc. *gorod-ěxъ*. In the following we note the identity of some of the masculine, neuter and feminine dual and plural forms.

Specht (1929, 270-271) maintains that the Slavic pronominal paradigm, which does not distinguish gender in the plural genitive, dative, instrumental or locative, retains the oldest Indo-European situation. He writes further that the notion that such a declension as the Skt. plural nom.-acc. *tās*, gen. *tāsām*, dat.-abl. *tābhyāḥ*, instr. *tābhiḥ*, loc. *tāsu* is an innovation following the noun paradigm is supported by the fact that a feminine pronominal stem *tā-* exists only for the most part where the noun and pronoun stems are identical. Specht may indeed be correct in his assumption, although the Russian example above shows that later analogical changes can introduce homonymous endings for masculine and feminine genders in plural paradigms. It is common for Indo-European plural paradigms to neutralize gender marking, but whether this neutralization is original or the result of later analogical changes cannot always easily be determined.

Feminine nominative-accusative dual. Lith. *tiẽ(dvi)*, Slavic *tě*, Skt. *te* may all derive from the stem form **tai* (in etymological pre-vocalic position). For Slavic and Sanskrit we note the identity with the neuter and one cannot exclude the possibility of a common source, viz. **toi* for both the feminine and neuter nom. acc. dual (and, for that matter the masculine nom. plural, also **toi*). The new **-ā* stem feminine nom. pl. **tā-s* restricted the **tai* or **toi* form to the dual.

Feminine genitive (locative) dual. The Lith. gen. dual *tū̃(dvieju)* except for the final (*dvieju*) does not differ from the gen. plural. The Slavic gen.-loc. dual *toju* was created under the influence of the gen.-loc. *dvъoju* 'two' and the Sanskrit counterpart *tayoh* under the influence of the gen.-loc. *dvayoh* 'two'.

The merger of Indo-European **o* and **a* in the satem languages led to the identification of the **-ā* stem root **ta-i* (mostly feminine) with the **to-i* (mostly masculine). Since both etymological **ta-i* and **to-i* could serve as the stem for

Slavic *toju* and Skt. *tayoh* and since in both languages the masculine and feminine genitive (locative) dual are identical it is difficult to determine the origin of this form.

Feminine dative dual. Lith. *tó(m)dviem* is closely related to the dative plural *tóms*. An original non-singular dative **tomu* was restricted to dual function when *-s* was added to form the plural. Skt. *tābhyām* retains the original identity of the dative, instrumental and locative cases from **tā + bhi + ām*. Slavic dat.-instr. *těma*, identical with the masc.-neut. dat.-instr. *těma* reflects the Slavic lack of gender distinction in the non-singular pronouns.

Feminine instrumental dual. Lith. *tō(m)dviem* is closely related to the instrumental plural *tōms*. An original non-singular instrumental **tomi* was restricted to dual function when *-s* was added to form the plural.

Feminine nominative plural. Lith. *tōs* and Skt. *tāḥ* can both be traced back to **tā-* plus pluralizing **-s* (R - **tās*). Slavic *ty* is adopted from the accusative plural.

Feminine genitive plural. Here one encounters the **-o* stem declension Lith. gen. pl. *tū* (R - **tōn*), cf. Gk. τῶν. Meillet (1934, 319), apparently on the basis of the Greek pronouns, e.g., Homeric -ῶν, proposes a contraction of an original **-ā-ōm* or **-ā-ōn*, but I would see a simple case of analogical insertion of the stem vowel **-ā(-)*. Similarly Slavic has for all genders of the plural declension the **-o* stem forms, thus, e.g., gen. pl. *těxъ*, like the masculine genitive plural. One could imagine that Skt. *tāsām* could have replaced an earlier *tēsām* with hypostasis of the feminine plural stem *tās*. Specht (1929, 272) notes the use of the Old Persian apparently etymologically masculine gen. pl. *tyaišām* to modify the fem. gen. pl. noun *dahyūnām* ‘(of the) provinces’ in an inscription of Darius: *xšayaθya dahyūnām tyaišām parūnām* ‘king of these many provinces’ (Kent 1953, 136). Kent writes (1953, 68): “gen. pl. *tyaišām* has plural *-i-* + pronominal gen. pl. *-sōm*, cf. Skt. *yēsām*, and is used for the fem. as well as for the masc. (no extant masc. example)”. Brandenstein-Mayrhofer (1964, 69) merely assign the form, which they transcribe as **yaišām*, to the feminine gender.

Feminine dative plural. Specht (1929, 265-266) notes examples from Chylinski’s Bible translation in which the masculine form of the pronominal declension seems to be used with feminine nouns: (1) Deut. 3.21 *teypo padarys WIESZPATS wisiems karalistems* ‘so shall the Lord do unto all the kingdoms’ (Kavaliūnaitė 2008, 170); (2) Samuel I 10.20 *kad liepe prisiartynt wisiemus giminems* ‘And when he (Samuel) had caused all the tribes to come near’ (Kavaliūnaitė 2008, 253); (3) Kings I 3.2 *iki aniems dienams* ‘until those days’ (Kavaliūnaitė 2008, 299); (4) Samuel I 15.9 *paczedyjo... gierausiems aviems* ‘spared the best sheep’ (Kavaliūnaitė 2008, 258); (5) Kings I 11.8 *Ó taypo dare*

wisiems moterams savo praszalnetems ‘And likewise did he for all his strange wives’ (Kavaliūnaitė 2008, 307); (6) Joshua 23.3 *wis kq padare WIESZPATS Diewas jusu wisiemus tiemus giminems po weydu jusu* ‘all that the Lord God hath done unto all these nations because of you’ (Kavaliūnaitė 2008, 220). Endzelīns (1931, 111-112) gives some examples from the 1585 Catholic Catechism (I) and the 1586 Lutheran Catechism (II) in which the apparent masculine pronominal dative is used to modify a feminine noun. In the examples spaced letters denote the writing is not certain (at least at that time for Endzelīns): *ar tiems a t c e m s* (fem. noun) ‘con gli occhi, with the eyes’ (I); *nuo tiems a t s l e e g e m s* (fem. noun) ‘dalle chiavi, from the keys’ (II). Stang (1966, 246) quotes from ‘fischerlit.’ the example *tiems mó^uterams* ‘(to, for) the women.’ Stang mentions also the lack of gender distinction in Germanic, cf. Old Norse gen. pl. *þeir(r)a*, dat. *þeim*, Goth. dat. pl. *þaim* for all genders. Specht (1929, 265) notes that Old Prussian *stēimans*, *steīmans*, *steimans* are used with both masculine and feminine nouns. Later Specht (1933, 269) wrote: “So lehrt also das Altlettische neben dem Apreuss., Lit., Germ., Slav. und Iran. dass im Plural des geschlechtigen Pronomens das Geschlecht bis in die einzelnen idg. Sprachen hinein noch nicht geschieden war”. Stang (1966, 246) considers Specht’s notion to be correct and I consider Specht’s proposal quite possible, although not necessary, if one takes into consideration the possibility of the loss of morphological distinctions of gender in plurals as illustrated by the Russian example mentioned above. (Similarly, whatever differences of gender may have existed in the Germanic plural of the pronoun **to-* as attested by the Gothic pl. masc. nom. *þai*, gen. *þizē*, acc. *þans* vs. pl. fem. nom. *þōs*, gen. *þizō*, acc. *þōs*, these have already been lost in Old English where for all three genders we encounter the nom.-acc. pl. *þā*, gen. pl. *þāra*., see Prokosch [1939, 268]. Of course, although it seems less likely to me, it is always possible to assume that the Old English lack of gender distinction reflects better the original situation and the Gothic forms represent an innovation.)

Rosinas (1995, 89) ascribes the variation in gender of the Baltic pronouns to a variation in the gender of the nouns themselves in various different Lithuanian dialects. Similarly in Latvian either the gender of the nouns may have varied or the German translators may have followed the German model, where the definite article does not distinguish gender in the plural. Rosinas attributes this lack of gender distinction in the Old Prussian plural pronouns for both genders to German influence.

In addition to the well known lack of gender distinction in the German definite article one might note the French definite article *le* (masc. sg.), *la* (fem. sg.), but *les* (plural for both genders). In 1951 while studying the French

Canadian dialect of Berlin, New Hampshire (USA), I found that many local French speakers used the plural pronoun *ils* (which the normative grammars characterize as masculine) even when referring to feminine nouns (e.g., *les tables*) instead of the normative grammar form, *elles*. I assumed at the time that this Canadian usage was merely the result of English influence, but on presenting the results of my research to my professor, André Martinet, I was informed that typically plurals are less marked for gender and that English here was perhaps only the catalytic element reinforcing a natural tendency.

For standard Lith. *tóms* Rosinas (1995, 91) reconstructs **tāmōs*. According to Zinkevičius (1966, 315) Lith. *tomu, tomi, tom(s)* have the same endings as the nouns. If Specht's proposal is correct, the Lithuanian pronominal endings are derived from the nominal paradigm. Skt. dat.-abl. pl. *tābhyaḥ* derives from the stem **tā-* with the suffixes **-bhi-* + **-es*, differing from the masculine correspondent *tebhyaḥ* only by the stem vowel which may have been introduced later under the influence of the noun declension.

Feminine accusative plural. Concerning the **-ā* stem accusative plural ending Thumb-Hauschild (1959, 48) write: "Idg. *-ās* (= ai. *-ās*) geht wohl auf ein noch älteres *-ā-ns* zurück, das schon idg. – nach Länge und vor *s* – den Nasal verlor...". According to this explanation Indo-European **tāns* would have passed to Skt. *tāḥ*. In Slavic, however, the posited form **tāns* apparently passed to **tans* (with shortening of the preceding vowel) > **tons* > **tuns* > **tūs* (with loss of the nasal before spirant and compensatory lengthening of the preceding vowel) > **tū* (with loss of the final **-s* as a result of the 'law of open syllables') > *ty* (with the passage of etymological **ū* to *y*). Similarly Lith. *tàs, tās (táis), tós* quoted by Zinkevičius (1966, 316) (R - **tās*) may derive from Indo-European **tāns* or perhaps in such forms as *tās* the nasal comes from analogy to other stems or from substitution from the accusative singular. According to Zinkevičius (1966, 291-292) Eastern High Lithuanian *panevežiškiai* speakers in many places use the masculine form of the definite adjective, e.g., *baltúosius* 'the white' in place of *baltásias*. In Zinkevičius' opinion this is a result of the merger of the masculine and feminine simple form of the adjective, viz. acc. pl. fem. *báltas* and acc. pl. masc. *báltus* merge phonologically as *bált's*. Zinkevičius (1966, 292) notes also that here the masc. acc. pl. *tuos* is used also in place of the expected *tas*. This might also be explained as a result of the general tendency to reduce gender distinctions in non-singular forms.

Feminine instrumental plural. Lith. *tomis* is reconstructed by Rosinas (1995, 91) as **tāmīs*. Zinkevičius (1980, 195) writes that the final syllable of the ending must have been **-mīs* with a long vowel, because in the Samogitian *Kretingiškis* pronunciation an etymological short **i* is lowered to *e*. (e.g., *vagis*

> *vāgē.s* ‘thief’) whereas an etymological long **ī* becomes *i* (cf. instr. pl. *vāgē.ēmīs*). An etymological long **ī* is also encountered in the final syllable of Slavic *těmi*, which is used with masculine, neuter and feminine reference. Skt. instr. pl. *tābhiḥ* derives from **tā-bhi-s*, differing from the dat.-abl. pl. *tābhyaḥ* only by the ablaut grade of the suffix, viz. **-s* rather than **-es*.

Feminine locative plural. The **-ā* stem locative plural Lith. *tosè, tósu, tósa, tōs* have the same endings as do the nouns (Zinkevičius 1966, 316). Zinkevičius (1980, 196) writes that the ending *-osè* is derived from **-āsè < *-āsén*, with the ending *-én* added to the accusative plural ending **-ās*. As with the masculine **-o* stem locative plural I assume that the original meaning was that of directive or object of motion, later reinforced by the postposition **-én* which originally presumably also denoted the object of motion. Most likely the forms in *-sa* derive from a restructuring of the ending *-se*. The Proto-Baltic reconstruction **tāsu* posited by Rosinas (1995, 91) would correspond exactly to the attested Skt. *tāsu*. In Slavic the etymological masculine form *těxъ* is also encountered in the feminine declension.

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Abbreviations

- Av. – Avestan
- LKG – Ulvydas Kazys (red.) 1965. *Lietuvių kalbos gramatika 1. Fonetika ir morfologija (daiktavardis, būdvardis, skaitvardis, įvardis)*, Vilnius: Mintis.
- OCS – Old Church Slavic
- R - Rosinas, Albertas. 1995. Proto-Baltic pronoun reconstructions from pp. 90-91 of this work are marked with (R).
- RV – Rig Veda
- Skt. – Sanskrit