

THE INFLEXION OF THE INDO-EUROPEAN *O*-STEMS IN BALTO-SLAVIC

The principal merit of Thomas Olander's new monograph (2015) is its extensive bibliography, which greatly facilitates newcomers' access to the field. This is an important contribution. Unfortunately, the author does not take the Slavic developments after the rise of the new timbre distinctions (*a, e, i, y, u* versus *o, e, v, ɔ*, stage 7.13 of Kortlandt 2011: 168) into account. This has grave consequences for his reconstruction of earlier stages because, contrary to Olander's statement (e.g. 2015: 66), distinctive vowel length was not lost by the rise of the new timbre distinctions (cf. Vermeer 1992, which is not mentioned in Olander's bibliography). In fact, distinctive vowel length in both stressed and unstressed syllables is of crucial importance for a correct assessment of the loss of the Indo-European laryngeals and the development of glottalization and for the relative chronology of Dybo's law, which is completely wrong in Olander's account. "In some instances it seems that originally long vowels preserve their quantity in Slavic dialects" (Olander 2015: 67). Yes, indeed! Pretonic long vowels were shortened before Dybo's law and new pretonic long vowels originated as a result of Dybo's law, while under the stress and in posttonic syllables distinctive vowel length was never lost (e.g. Kortlandt 2011: 259-276 and 311-327). Note that Stang's law and the rise of the neo-acute are not mentioned in Olander's book. His "Proto-Balto-Slavic", "Proto-Slavic" and final "Common Slavic" roughly correspond to stages 5.0, 6.0 and 8.0 of my chronology (cf. Kortlandt 2011: 157-176 and 277-309).

In the following I shall discuss the development of the Indo-European *o*-stems in Baltic and Slavic languages because several of the major disagreements between Olander and myself concern this paradigm. The most important issue is the acc.sg. ending PIE **-om*, which is reflected as Slavic *-v*, Lith. *-q*, Prussian *-an* and *-on* (cf. Olander 2015: 118f. and 58f.). I have argued that **-om* was raised to **-um* in Balto-Slavic times and that the Lith. ending *-q* and Prussian *-an* are due to restoration (e.g. Kortlandt 2009: 116). The phonetic reflex of PIE **-um* in Prussian is *-un* in I *sunun nusun* and *-on* in II *sounon nouson*, E *soūnon noūson* (Kortlandt 2009: 259). In the *o*-stems, the ending *-an* is found in regular nominal paradigms whereas the ending *-on* is found everywhere else: *deickton* 'etwas, statt', *niainonton* 'niemand', *muisieson* 'größer', *pauson* 'wegen', *enterpon* 'nützlich', numerals *dessimton* '10' (3×), also *dessimtons* (2×), *tūsimtons* '1000', passive participles *ainangeminton*, *niwinūton*, *ismaitinton*, *perklantiton*, *polaipinton*, *pogauton*, *potaukinton*, neuter forms *billiton* (20×), *dāton*, *peisāton*, *podāton*, *pogalbton*, *poquoititon*, *popeisāton*, *prolieiton*, *etwierpton*, *enteikūton*, *pomeston* used in predicative function. These forms were evidently uninflected and therefore resisted the analogical introduction of *-an* on the basis of other case forms. It follows that the ending *-on* < **-om* is archaic, and that in nouns it was replaced by *-an* in recent times, also in the *u*-stems, e.g. I *dangon* (4×), II *dængon* (3×), *-an* (1×), E *dangon* (13×), *-an* (2×), I *sunun*, II *sounon*, E *soūnon* (2×), *-an* (7×), and in the other stem classes (cf. Kortlandt 2009: 225 and 237f.). Olander writes (2015: 59): "I find it more attractive to assume that *-on* is the result of an analogical introduction of *u*-stem endings in original *o*-stem paradigms" (similarly

Olander 2010: 91). This is an absurd suggestion. There is simply no model for the substitution of *-on* for *-an* in numerals, participles and isolated word forms. Note also that the neuter ending was *-u*, not **-um*, e.g. in I, II *pecku*, E *pecku* (3×), *peckan* (2×). Moreover, there is simply no motivation for the substitution of *-on* for *-an* in word forms which had lost the connection with their original paradigm. In fact, the converse substitution of *-an* for *-on* is taking place right before our eyes in the 16th century Prussian documents, cf. also acc.sg. I *krixtianiskun*, II *-squan*, E *-skan*, I *perroniscon*, II *-squan*, E *-skan*, I *prabitscun*, II *-squan*, E *-skan*, gen.pl. I *grecon*, *grekun*, II *griquan* (2×), E *grijkan* (2×).

Illič-Svityč has shown (1963: 120-140) that barytone neuter *o*-stems became masculines in Slavic whereas oxytone neuter *o*-stems remained neuters. This development was evidently conditioned by the analogical barytonesis in the acc.sg., nom.pl. and acc.pl. forms of the masculine *o*-stems on the analogy of the mobile stem classes (cf. Kortlandt 2009: 105). The oxytone neuters remained oxytones until the retraction of the stress known as Hirt's law gave rise to new barytone neuters, e.g. Lith. *tīltas* (1) 'bridge', Latvian *tīlts*, borrowed as Finnish *silta*, Serbo-Croatian *jāto* 'flock', Vedic *tīrthām*, *yātām*. Since the two types of barytone neuter paradigm remained distinct, it follows that the PIE ending **-om* had already been replaced in the oxytone neuters before Hirt's law by the pronominal ending **-od*. The fact that this replacement did not take place in the original barytone neuters (and did not affect the neuter *u*-stems) implies that the ending **-om* had already been raised to **-um* at the time of Hirt's law (cf. Kortlandt 2011: 44). It follows that the raising was a Balto-Slavic development. The original barytone neuters did not yet completely merge with the masculine barytones because the latter (unlike the former) joined the mobile accent paradigm in Slavic (cf. Kortlandt 2011: 27f., my stage 6.9), e.g. Serbo-Croatian *zūb* 'tooth', Greek *γόμφος*. In Latvian, the new barytone neuters which resulted from Hirt's law joined the mobile accent type at a stage which was anterior to the fixation of the stress on the initial syllable, e.g. *siēts* 'sieve', Lith. *sietas* (1), Serbo-Croatian *sīto* (cf. Illič-Svityč 1963: 154, Kortlandt 2009: 14f.). Prussian neuter *o*-stems represent original oxytones (cf. Kortlandt 2011: 133, Derksen 2011: 61). The final *-n* of *assaran* 'lake' and other nouns was taken from the adjective, which had preserved the original ending, as in (po)*dāton* 'given', (po)*peisāton* 'written'.

The gen.pl. ending of the *o*-stems PIE **-om* is reflected as Slavic *-v*, Lith. *-ų* and Prussian *-on* (cf. Olander 2015: 263f.). Contrary to the traditional doctrine professed by Olander, there is no evidence for a PIE ending **-ōm* (cf. Kortlandt 2014a). The Indo-Iranian ending **-aHam* is recent because it was not contracted, unlike dat.sg. **-ōi*, **-āi*, abl.sg. **-ōd*, **-ās*, loc.sg. **-oi*, gen.sg. **-ās*, nom.pl. **-ōs*, **-ās*, inst.pl. **-ōis*. The introduction of the suffixes **-o-* and **-aH-* in the gen.pl. form was probably more recent than the vocalization of the syllabic nasals, e.g. in **maHas* 'moon', **vaHatas* 'wind', which gave rise to new intervocalic laryngeals (cf. also Lubotsky 1995). In Greek, too, the gen.pl. ending *-ōv* betrays an uncontracted sequence of the thematic suffix and the PIE ending **-om*. In Italo-Celtic there is no evidence for a long vowel in the gen.pl. ending while some forms point unambiguously to a short ending **-om*, e.g. Old Irish *fer* < **wirom*. In Gothic, the gen.pl. ending *-o* is limited to the *ā*-stems and feminine *n*-stems and must therefore represent the stem vowel **-ā-* followed by an apocopated short ending. Similarly, the gen.pl. ending of both masculine and feminine *i*-stems is *-e*, e.g. in *gaste*, *mahte*, which therefore represents the full grade suffix **-ei-* followed by an apocopated short ending with a low vowel (cf. van Coetsem

1994: 98-113 on the rise of $*\bar{e}_2$). The latter ending spread to the *u*- and consonant stems, both masculines, e.g. *sunīwe*, *broþre*, and feminines, e.g. *baurge*, *waihte*, and to the *o*-stems, e.g. *dage*, *waurde*. These forms evidently had a zero ending after the apocope of $*-om$. The ending of the Latvian pronominal gen.pl. form *tùo* (Olander 2015: 265f.) is recent because the Indo-European form was $*toisom$, the expected reflex of which is $*tiesu$, Slavic *těxъ*. Latvian evidently shared the restoration of the stem vowel in Lith. acc.sg. *tą* and created a new gen.pl. form on the basis of the regular morphophonemic alternation between *u* and *uo* in the paradigm, e.g. acc.sg. and inst.sg. *tùo mazuõ dievu*, acc.pl. *tuõs mazuõs dievus*, cf. gen.sg. *tà mazā dieva*, nom.pl. *tiẽ maziẽ dievi*. A correct assessment of the historical relationships presupposes a synchronic analysis of the separate stages of development. Note that PIE $*-ōn$ is reflected as Lith. *-uõ*, e.g. in *akmuõ* ‘stone’, where Slavic *kamy* shows that the final nasal was preserved in Balto-Slavic times.

The gen.sg. ending of the *o*-stems was $*-ōd$ in Balto-Slavic, as was the cognate abl.sg. ending in Latin. It is reflected as Lith. *-o* because it was unstressed (cf. Kortlandt 2009: 6). There is no evidence for an ending $*-ād$ (assumed by Olander 2015: 134-136), which is improbable anyway because the paradigm of the *o*-stems is built on the original PIE nominative, ergative, genitive and ablative form in $*-os$, which is best preserved in the Hittite ending *-aš* (cf. Beekes 1985: 184-195). When the ergative became a nominative, the ablative adopted the instrumental suffix $*-t$ which is preserved in Hittite and appears as $*-d$ (Avestan *-t*), $*-ʔ$ and zero in the other languages (cf. Kortlandt 2010: 41f.). Substitution of the locative suffix $*-i$ in the new instrumental and ablative forms supplied a locative and a dative for the new paradigm. Thus, we arrive at a thematic inflexion with nom.sg. $*-os$, acc.sg. $*-om$, inst.sg. $*-oʔ$, loc.sg. $*-oʔi$, abl.sg. $*-oʔed$, dat.sg. $*-oʔei$, and gen.sg. $*-iʔ$ (for the latter see Kortlandt 2009: 122 and 2014a: 9f.) at the stage which I have called Classic Indo-European (see Kortlandt 2010: 48), followed by raising of $*-om$ to $*-um$ and loss of intervocalic laryngeals yielding gen.sg. $*-ōd$ and dat.sg. $*-ōi$ in Balto-Slavic, also loc.sg. $*-oi$ by analogy. In the vocative, the stem was apocopated, as in modern Russian *Saš* ‘Sasha!’, *Nataš* ‘Natasha!’, and the form was followed by an enclitic particle $*e$ (cf. Beekes 1985: 101).

In earlier studies I have argued that PIE $*o$ was raised in Slavic in the endings $*-ois$, $*-ōis$ and $*-ons$, but not in $*-os$ and $*-ōs$ (e.g. Kortlandt 2011: 125-132 and 163, stage 5.9). Olander proposes a general raising of long and short $*a$ and delabialized $*o$ to a central vowel $*ə$ (for which there is no independent evidence) before final $*-s$ or sequence of resonant (nasal or semivowel) plus $*-s$ (2015: 56f., cf. already Olander 2012: 337). He dates this development after the delabialization of $*ō$ to $*ā$ (my stage 5.12), which was obviously more recent than the labialization of $*-ōi(s)$ to $*-ou(s)$ (my stage 5.11) in dat.sg. $*-ōi$ and inst.pl. $*-ōis$, which yielded Slavic *-u* and *-y*, respectively (cf. Olander 2015: 55). This brings him into difficulties because the raising did not affect the gen.sg. ending $*-ous$ of the *u*-stems (as I had pointed out earlier, cf. Kortlandt 2011: 164). Olander remedies the problems by introducing an analogical replacement in this case ending and an additional “minor sound law” to generate the correct inst.pl. endings (2015: 57). All this is quite unnecessary if one recognizes that the raising before $*-s$ preceded the delabialization and did not affect $*-os$ and $*-ōs$, which regularly became *-o* and *-a*, respectively (cf. Olander 2012: 321 and Kortlandt 2014a: 8f., with references). The nom.sg. ending *-o* of the *o*-stems was taken from the acc.sg. form on the analogy of the *u*-stems after the loss of final $*-s$. The North Russian

nom.sg. ending *-e* may have been taken from the vocative or from the soft stems (cf. Vermeer 1991: 285-290, Olander 2015: 104), like the acc.pl. ending *-ě* and the gen.sg., nom.pl. and acc.pl. endings *-ě* in the paradigm of the *ā*-stems (cf. Olander 2012: 334), cf. the same generalization of the soft endings in Serbo-Croatian acc.pl. *grāde*, gen.sg. *žènē*, nom.acc.pl. *žène*, also dat.loc.sg. *žèni*. The nom.pl. ending **-oi* of the *o*-stems is of pronominal origin and received an additional **-s* from the other nominal paradigms in Slavic (e.g. Kortlandt 2011: 42), yielding the historical ending *-i* as a result of raising (stage 5.9), monophthongization (stage 6.5) and delabialization (stage 7.8). Contrary to Olander's statement (2015: 48, 323), the laryngeal was not lost in the 2nd sg. optative ending **-oiʔs* in Balto-Slavic because the ending is acute in the Slavic imperative *-ì*, which appears with a neo-circumflex before a clitic in Slovene (e.g. Stang 1957: 49, 137). However, the laryngeal was lost in the 3rd sg. ending **-oi < *-oiʔd*, as is clear from the Lith. permissive ending *-iẽ* (cf. Olander 2015: 337). The different development must evidently be explained by the absorption of the laryngeal by the following preglottalized stop **-d*, as happened in certain positions in Indo-Iranian (cf. Lubotsky 1981). It follows that Olander's "devoicing of word-final obstruents" (2015: 50) is a mistake. Word-final stops may or may not have been (partly) voiced in (non-Anatolian) Indo-European but they were definitely glottalized, which may have been the reason for the distinct orthographical symbol *-ṭ* in Avestan. The Lith. nom.pl. endings *-ai*, *-ì*, *-íe-*, *-iẽ* represent unstressed **-oi* and stressed **-aʔi* (cf. Kortlandt 1993 = 2009: 147-149). The distribution is explained by the fact that in East Baltic the masculine ending **-oi* was always unstressed in nominal paradigms whereas the neuter ending **-aʔ* was always stressed because barytone neuters had become masculines. The neuter forms sg. **ta* and pl. **taʔ* were evidently disambiguated to nom. *tas*, **taʔi* and acc. *tq*, **taʔns* when the neuter gender was eliminated, regularly yielding pl. *tiẽ*, *tuõs*, Latvian *tiẽ*, *tuõs* with an acute.

The acc.pl. ending of the *o*-stems was **-ons* in (non-Anatolian) Indo-European, as is clear from the Avestan, Greek, Sabellic, Germanic and Tocharian evidence (cf. Olander 2015: 248 and Kim 2012: 146 for the data). In Balto-Slavic, the ending adopted a laryngeal on the analogy of paradigms with a stem-final laryngeal. The motivation for this analogical change was the loss of the laryngeal with compensatory lengthening before final **-m* in the acc.sg. form of these paradigms, yielding Lith. *-q̄* with a circumflex, Vedic *-ām*, *-īm*, Greek *-āv*, *-ūv*, Old High German *-a < *-ām*, also in the acc.pl. form before **-ns* in OHG *-ā < *-āns < *-aHns*, but without compensatory lengthening in Greek (Cretan) *-avç* and intervocally after the vocalization of the nasal in Vedic *-ās* (cf. Kortlandt 2014b: 220). The laryngeal was preserved as glottalization up to Leskien's law in Lith. *-às*, e.g. *rankàs*, and even longer in the Latvian loc.pl. form, e.g. *rùokàs*, as opposed to loc.sg. *rùokā*, because the locative is historically an illative in this language (cf. Vanags 1994: 125, Kortlandt 2009: 92). Unlike Olander (2015: 248-251) I cannot accept Kim's reconstruction **-ōms* (2012: 149) because it is based on a combination of Szemerényi's lengthening, which is an instance of circular reasoning, and Osthoff's shortening, for which there is no evidence (cf. Kortlandt 2014b: 220fn.). For Latin and Celtic I assume loss of the nasal with compensatory lengthening in the acc.pl. ending **-ons* yielding *-ōs*, with raising in the final syllable and shortening of the vowel in Old Irish *-u*, e.g. in *firu* 'men' (cf. Kortlandt 2007: 6f.), but not in *inna* 'the' *< *sindons* because the article was pretonic (cf. Thurneysen 1946: 295). In Slavic, the acc.pl. ending **-ons* was subject to raising (stage 5.9), delabialization (stage 7.8) and loss of nasalization (stage 7.9), yielding *-y* in

all Slavic languages (cf. Kortlandt 2011: 163-168). After *j, the ending was subject to raising (stage 5.9), umlaut (stage 6.1), delabialization (stage 7.8), and merger with *-ę in South Slavic (stage 7.14) and with *-ě in North Slavic (stage 8.3).

The dat.pl. ending of the *o*-stems was *-omus in non-Anatolian Indo-European, which is regularly reflected in Lith. -ams, OLith. -amus, Slavic -omъ, with *u*-infection in Old High German *tagum* and Old Norse *dogom* (cf. van Helten 1891: 460-462), and zero in Armenian (cf. Kortlandt 2003: 49). The ending was replaced by the new ablative endings *-b^hos in Italo-Celtic and *-b^hios in Indo-Iranian which had replaced the earlier abl.pl. ending *-ios (which is still found in the Armenian pronoun, cf. Kortlandt 2003: 50). The Prussian ending -mans took -ans from the acc.pl. ending. The loc.pl. ending *-oisu was taken from the pronoun in non-Anatolian Indo-European and is reflected in Vedic -eṣu, Lith. -uose, OLith. -uosu, Slavic -ěxъ. The original dual endings were nom.acc. *-oH, neuter *-oi (cf. Kortlandt 2010: 155-157), gen. *-ōus, loc. *-oiēu (cf. Kortlandt 2009: 184 and 2013: 7), dat. *-omoH, inst. *-oioH, Balto-Slavic *-o?, *-oi, *-ōu(s), *-omo?. While the addition of the PIE instrumental suffix *-t supplied a new Classic Indo-European ablative ending of the *o*-stems *-ōd which later became a genitive ending in Balto-Slavic, the instrumental of the pronoun adopted the locative ending *-oi, which is reflected in Vedic masc. *téna*, fem. *táyā* and Slavic masc. *těmb*, fem. *tojъ*, all from *-oi-. In the other oblique cases, the pronominal *o*-stems adopted an extension masc. *-sm-, fem. *-si- ‘one’, e.g. Vedic dat.sg. *tásmai*, *tásyai*, abl.sg. *tásmād*, *tásyās*, loc.sg. *tásmín*, *tásyām* ‘that (one)’, Slavic dat.sg. *tomu*, loc.sg. *tomъ*, fem. *toj-*, Lith. dat.sg. *tám*, *tāmui*, *tái*, *taĩ*, loc.sg. *tamè*, *taĩ*, *tojè*, *tōj*, Gothic masc. *þamma*, fem. *þizai*. In the Baltic and Slavic forms the *-s- was lost on the analogy of dat.pl. *-mus and inst.sg. *toj- (and *toi- in the plural forms). The instrumental ending was replaced by the adessive particle *b^hi in Greek -φι (cf. Chantraine 1967: 118-120), Armenian -b, pl. -b^hk’ < *-b^his, Vedic -bhis, Avestan -biš, Old Irish -ib, extended in Gothic adv. -ba < *-b^hoH beside -o < *-ōd, e.g. *sunjaba* ‘truly’, *þiubjo* ‘secretly’, in Balto-Slavic with -m- replacing *-b^h-, e.g. Lith. *sūnumì*, Slavic *synъmъ*, pl. Lith. *sūnumìs*, Slavic *synъmi* < *-mišs, with glottalization from the acc.pl. ending.

For the interested reader I here give a concordance of Olander’s relative chronology (2015: 46-67) and mine (cf. Kortlandt 2011: 157-176 and 277-309, also Kortlandt 2008 = 2009: 43-50). Note that the formulations of the separate developments are most often very different.

BS1 Loss of laryngeals = K 2.2, 5.3, 6.5, 7.13, (3), (19), (20).

BS2 Diphthongization of syllabic sonorants = K 4.2, (10) dissolution of the syllabic resonants.

BS3 Common Indo-European vowel contractions = K 2.2, (3).

BS4 Mobility law = K 3.2, 3.3, 4.4, 5.4, 6.9, 6.10, 7.2, (6), (12), cf. my review articles (2009: 93-101 and 2010: 341-357).

BS5 Devoicing of word-final obstruents = K none.

BS6.1 Winter’s law = K 4.3, (11).

BS6.2 Deaspiration of voiced aspirated stops = K none.

BS7 Delabialization of *o to *a = K 5.2, 5.12, (17), (18).

BS8 Assibilation of palatal stops = K 2.3, 5.8, (4), (5), (17).

BS9 Loss of word-final stops = K 3.7, (8).

BS10 Diphthongization of *e before tautosyllabic *u = K (14).

BS11 Backing of *e before *w = K (13).

PS12 *Ruki* change = K 2.2, 5.6, 5.7, (3), (17).
 PS13.1 Dybo's law = K 8.7.
 PS13.2 Deglottalization = K 7.13, 9.2.
 PS14 Labialization of **ōi* to **ōu* = K 5.11.
 PS15 Delabialization of **ō* to **ā* = K 5.12, (17).
 PS16 Loss of **n* in word-final *-*ins* and *-*uns* = K 5.5.
 PS17.1 Raising before word-final (resonant plus) *-*s* = K 5.9, (17).
 PS17.2 Loss of word-final fricatives = K 5.6, 6.8.
 PS18 Loss of word-final dentals after long vowels, with raising of the vowel = K 5.1, (16) raising of **ē* and **ō* before a final resonant, which was lost.
 PS19.1 Rounding and raising of *-*am* to *-*um* = K 3.6, (7).
 PS19.2 Loss of word-final *-*m* after short vowels = K 5.5.
 CS20 Fronting of non-front vowels after palatal consonants = K 6.1 umlaut.
 CS21 First palatalization of velars = K 6.2.
 CS22 Monophthongization of oral diphthongs = K 6.5.
 CS23 Second palatalization of velars = K 6.6.
 CS24 Raising of **e* before **j* = K 7.9 (cf. Kortlandt 2011: 177f.).
 CS25 Common Slavic vowel contractions = K 7.15, 8.1.
 CS26 Elimination of post-consonantal **j* = K 7.15 van Wijk's law (cf. Kortlandt 2015).
 CS27 Backing of **ē* after palatalized consonants = K 6.1, 6.6 (cf. also 7.1, 7.10, and Kortlandt 2011: 255-258).
 CS28 Monophthongization of nasal diphthongs = K 5.5, 6.5 (cf. also Kortlandt 2011: 99-109).
 CS29 Reinterpretation of vowel quantity as quality = K 7.13 rise of the new timbre distinctions.

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Summary

The Balto-Slavic endings of the *o*-stems were sg. nom. *-os, acc. *-um, neuter nom.acc. *-o, *-um, gen. *-ō, dat. *-ōi, inst. *-oŕ, loc. *-oi, voc. *-e, pl. nom. *-oi, acc. *-oŕns, neuter nom.acc. *-aŕ, gen. *-um, dat. *-omus, inst. *-ōis, loc. *-oisu, du. nom.acc. masc. *-oŕ, neuter *-oi, gen. *-ōus, dat.inst. *-omoŕ, loc. *-ōu.