

A note on the Slavic genitive plural*

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Horace Lunt, whose classes I attended in the 1960's, was my first and only teacher of Slavic linguistics. It is an honor to be able to contribute, however modestly, to a volume in his memory.

The genitive plural, which ended in *-*ǔ* in Proto-Slavic, is probably the most controversial case form in the Slavic declensional system. Meillet, as is well known, took the ending from a supposed Proto-Indo-European gen. pl. in *-*om* (i.e., *-*ǝm*), for which he also found support, alongside the more abundant remains of *-*ōm* (*vel sim.*), in Old Irish, Umbrian, and Old Prussian.¹ According to Meillet, *-*om* was the “real” PIE gen. pl. ending, while the higher-profile sequence *-*ōm* (cf. Ved. -*ām*, Av. -*am*, Gk. -*ων*, OHG -*o*, etc.) was underlyingly *-*o-om*, the contraction product of *-*om* with a preceding stem-final *-*o-*. But the “short-vowel” theory of the PIE gen. pl., despite its superficial plausibility, has lost most of its appeal in recent years. From the outset, it was a disturbing fact that the allegedly original distribution, with *-*ōm* in *o*-stems and *-*om* elsewhere, was not actually preserved in any attested IE language. More recently, evidence has accumulated that the long form of the ending was not *-*oom* but *-*oHom*, and that the Celtic, Italic, and West Baltic endings thought to reflect *-*om* are at least equally compatible with *-*ōm* / *-*oHom*.² Even in Slavic, where the choice of *-*om* would seem completely straightforward, the prosodic behavior of the gen. pl. in parts of West and South Slavic suggests that the story is more complicated. In fact, as will be

* I am indebted to Michael Flier for ongoing discussion of the issues addressed in this paper. Errors that remain are, of course, my own.

¹ So, e.g., in his influential *Le slave commun* (1934: 172, 393 f.).

² Kümmel (2010) gives a concise and up-to-date overview of the problems associated with the PIE gen. pl., along with important new evidence for *-*oHom* (under the accent *-*óHom*) in Indo-Iranian.

seen below, a careful reading of the Slavic evidence shows that the source of PSl. **-ǔ* could only have been **-ōm* < PIE **-oHom*.

The prosodic peculiarity of the gen. pl. consists centrally in the fact, discussed by Stang (1957: 95 f.), that nouns of accent class a, with fixed rising (“acute”) intonation on the predesinential syllable, prehistorically changed this to falling (“circumflex”) intonation in the gen. pl. in Czech, BCS, and Slovenian; cf. Cz. nom. sg. *kráva* ‘cow’ : gen. pl. *krav*, nom. sg. *dílo* ‘thing’ : gen. pl. *děl*; BCS (Čakavian) *kràva* : *krâv*, *dělo* : *dêl*; Slov. *kráva* : *krâv*, *dělo* : *dêl*.³ Since none of the forms that exhibit this metatony can be explained internally within their respective languages, Stang took the circumflexion of the gen. pl. in class a to be an inheritance from Proto-Slavic. He conjectured that the falling intonation of PSl. **kôrvǔ*, **dêlǔ*, etc. was somehow connected to the fact that the **-ǔ* of these forms, unlike ordinary final jers, had been shortened from a pre-Slavic long-vowel ending corresponding to the **-ōm* / **-oHom* of the other IE languages. Today, more than a half century later, Stang’s shortening hypothesis remains the only intuitively plausible approach to the problem.⁴ But it has proved difficult to specify what precisely was shortened to what, or by what mechanism the shortening came to be translated into a shift from rising to falling intonation.

If we take a “reconstructing forward” perspective and try to envisage how the PIE sequence **-oHom* would have been treated in Slavic, two fairly safe assumptions can be made for the Balto-Slavic period: 1) **-m* would have become **-n* in word-final position; and 2) **-oHo-* would have contracted to an originally hyperlong (trimoric), later simply “non-acute” (probably = non-glottalized) long vowel **-ō-*.⁵ The Proto-BS gen. pl. ending

³ With the regular language-particular changes: long rising : falling ⇒ long : short in Czech, long rising ⇒ short falling in BCS. Both for reasons of space and my own competence, I confine myself here to accent class a, which is basic to an understanding of the more complex interactions of length, accent, and intonation in classes b and c.

⁴ Pace Kortlandt (1978 and later publications), whose commitment to **-ōm* embroils him in a host of implausible additional assumptions.

⁵ See for the general framework Jasanoff (2003). The distinction between long (bimoric) and hyperlong (trimoric) vowels in final syllables, a feature once common to Balto-Slavic and Germanic, was converted in

can be reconstructed as non-acute $*\bar{o}n$, whence Lith. $-u$ (under the accent $-\tilde{u}$), OPr. $-on$, $-un$, $-an$, and, according to Stang, PSl. $*-b$ with metatony. What is needed to complete the picture — and thus to transform Stang’s conjecture into a coherent theory — is an account of how the Slavic part of this scenario would have unfolded in the context of Slavic phonology as a whole.

Our only reliable source of information on the treatment of Proto-BS $*\bar{o}n$ in Slavic is the gen. pl. itself.⁶ To be sure, an ending of this form is sometimes also said to underlie the nom. sg. of masculine n -stems (e.g., OCS *kamy* ‘stone’); if this were true, the difference between the n -stem nom. sg. in $-y$ and the gen. pl. in $-b$ would presumably be due to the originally quantitative difference between the acute (< bimoric) vowel of the former and the non-acute (< trimoric) vowel of the latter (cf. Ved. gen. pl. $-aam$ beside $-\bar{a}m$). But as I have argued elsewhere, the supposed nom. sg. in $*\bar{o}n$ (*vel sim.*) is a fiction.⁷ The PIE nom. sg. ending in amphikinetic n -stems was $*-\bar{o}$,⁸ which is still preserved in Indo-Iranian (Ved. *ásmā*), Italic (e.g., Lat. *homo* ‘man’), and, above all, Lithuanian (cf. *akmuõ* ‘stone’). The non-acuteness of Lith. $-uõ$, $-uo$ is an isogloss that Baltic shares with Germanic (cf. OHG *gumo*, OE *guma* ‘man’ < trimoric $*-\bar{o}$); its source was probably a dialectal IE rule that redundantly added an extra mora of length to PIE

Balto-Slavic to a distinction between “checked” or “acute” longs, probably realized with a Danish-like *stød*; and unmarked longs, sometimes misleadingly labeled “circumflex,” but better simply termed “non-acute.” Inevitably, the use of the term “acute” to refer to a phonation type in Proto-BS risks being confused with the later, purely Slavic use of the term to refer to a rising intonation on accented syllables. The Balto-Slavic and Slavic acutes are historically linked through the fact that a Balto-Slavic glottalized (“acute”) long vowel or diphthong, when bearing an inherited accent, is realized in Slavic with rising (“acute”) intonation.

⁶ Note that since the vowels $*\bar{o}$ and $*\bar{a}$ were still distinct in Proto-BS, we cannot assume that $*\bar{o}n$ would have shared the fate of $*\bar{a}n$, which gave PSl. $*-o$ (cf. OCS \bar{a} -stem acc. sg. *kravŏ*, etc.). A secondary $*\bar{o}m$, derived by inner-Slavic apocope from $*\bar{o}-mi$, was the source of the PSl. 1 sg. pres. in $*-o$ (*vedŏ* ‘I lead’, etc.).

⁷ See especially Jasanoff (2002), updating and partly correcting the interpretation of the Slavic material in Jasanoff (1983).

⁸ The PIE accent-ablaut types are conveniently presented in Fortson (2010: 119 ff.). The hallmark of the amphikinetic (or holokinetic) declension was suffixal o -grade in the nom. sg. and other “strong” cases.

long vowels in absolute final position.⁹ The agreement of Baltic and Germanic on this point makes it, almost by definition, a Germanic-*Balto-Slavic* isogloss. Our default assumption, therefore, must be that *kamy* goes back to **kamō*, with non-acute **-ō*.¹⁰

Both the nom. sg. of *n*-stems and the gen. pl., in my view, illustrate a single early Slavic sound law:

Proto-BS non-acute (< trimoric) **ō* became pre-Sl. **ū* in final syllables.

The rule must have been very early, since it had to antedate the otherwise universal merger of Proto-BS **ā* and **ō*. Its effect was to generate an *n*-stem nom. sg. in **-ū* (whence routinely PSl. *-y*) and a gen. pl. in **-ūn*.¹¹

What would **-ūn* have given in Proto-Slavic? We have no other examples of this ending, so it is impossible to be absolutely sure. But the treatment of other endings of the form **-VN* furnishes a basis for educated guesswork. In all clear cases, final **-VN* sequences lose the nasal, while **-VN̄* sequences become (non-contrastively) long nasalized vowels:

⁹ Sequences of the type **-oH*, on the other hand, were not subject to the rule; contrast Lith. 1 sg. *vedù* ‘I lead’ < **-úo* < acute **-ō* < **-o-h₂*.

¹⁰ It is not, strictly speaking, *impossible* that the nom. sg. of *n*-stems could have ended in **-ōn* in pre-Slavic; the **-n* could have been analogically restored, as it was in Greek (cf., e.g., ἄκμων ‘anvil’ for older **-mō*). But given that Baltic has **-ō*, this would be a highly marked assumption for Slavic.

¹¹ Cf. Jasanoff (1983). There was a parallel raising of non-acute **-ē*, seen in OCS *dъšiti* ‘daughter’, *mati* ‘mother’ beside Lith. *duktė*, *motė* ‘woman’. The rule was earlier seen by Pedersen (1905: 325 f.).

| * \bar{V} N | | | * \bar{V} N | | |
|---------------|---|---|---------------|---|----------------------------|
| pre-Sl. | | Proto-Sl. | pre-Sl. | | Proto-Sl. |
| * <i>-in</i> | > | * <i>-b</i> ¹² | * <i>-īn</i> | > | ? |
| * <i>-un</i> | > | * <i>-b</i> ¹³ | * <i>-ūn</i> | > | ? |
| * <i>-en</i> | > | * <i>-e</i> ¹⁴ | * <i>-ēn</i> | > | * <i>-ẽ</i> ¹⁵ |
| * <i>-on</i> | > | * <i>-b</i> ¹⁶ (via * <i>-un</i>) | * <i>-ān</i> | > | * <i>-õ</i> ¹⁷ |

All this makes excellent sense in phonetic terms. All vowels were probably once redundantly nasalized before word-final **-n*; when the **-n* was later lost, the nasalization was phonologized on long vowels, where it was acoustically salient, but lost on short vowels, where it was perceptually less conspicuous. The expected reflexes of **-īn* and **-ūn* would thus in the first instance have been nasalized **-ĩ* and **-ũ*.¹⁸ Nasalized high vowels were not part of the regular Proto-Slavic inventory, but they are known to have existed in word-internal environments at an earlier stage of the language (cf., e.g., OCS (= PSl.) *pamętb* ‘memory’ < **-mīti* < **-mintis*; *bqđq* ‘I will be’ < **buđ-* < **bund-*), and there is no reason why they cannot be assumed to have occurred in absolute final position as well.

How, then, would **-ũ* < **-ūn* have been treated in Proto-Slavic? One possible outcome, at least in principle, would have been **-õ*, identical with the reflex of **-ũ-* in word-internal position (cf. *bqđq*). Another possibility would have been denasalized **-ū* (> **-y*), the regular outcome of **-ũ-* (albeit an earlier and historically distinct **-ũ-*) in the

¹² Seen, e.g., in the acc. sg. of *i*-stems (OCS *kostb* ‘bone’, etc.)

¹³ Cf. *u*-stem acc. sg. OCS *domb* ‘house’.

¹⁴ Cf. consonant stem loc. sg. OCS *kamene*, if, as usually assumed, from **-en*.

¹⁵ Cf. *n*-stem nom.-acc. sg. nt. OCS *imę* ‘name’.

¹⁶ Cf. *o*-stem acc. sg. OCS *rabb* ‘slave’.

¹⁷ Cf. *ā*-stem acc. sg. OCS *kravq*.

¹⁸ Here and below, references to the treatment of **-īn* are purely for the sake of pattern symmetry; so far as I am aware, there are no actual reflexes of this ending.

acc. pl. of *u*-stems ($*-uns > *-us > *-ū(s) > *-y$).¹⁹ In fact, however, the Proto-Slavic reflex of $*-u$ was clearly $*-b$. Though perhaps a less “guessable” choice than $*-q$ or $*-y$, this treatment can be seen as the outcome of a three-step process:

Step 1: shortening. The nasalized vowels of early Proto-Slavic were non-contrastively long. In absolute final position, however, $*-u$ was phonetically shortened, a consequence of the crosslinguistic negative correlation of vowel length with vowel height and the tendency of all vowels to weaken word-finally.²⁰

Step 2: jer formation. Inherited short $*u$ and $*i$ became reduced vowels (jers) $*b$ and $*b$ in Slavic. As part of the process, nasalized shortened $*-u$, the output of step 1, became a *nasalized* jer ($*-b̄$).²¹

Step 3: denasalization. Pre-Sl. $*-b̄$ gave up its nasalization, merging with ordinary $*-b$ to give the familiar PSl. gen. pl. ending. But the merger was not absolute; it led to the acute-to-circumflex metatony noted earlier, for which an explanation can now be provided.

From beginning to end, then, the segmental history of the gen. pl. ending was

PIE $*-oHom > BS \text{ } *-\bar{o}n \text{ (non-acute)} > \text{pre-Sl. } *-\bar{u}n > *-u > *-b̄ > \text{PSl. } *-b$.

The metatony observable in Cz. *kráva* : *krav*, Čak. *kràva* : *krâv*, etc. can easily be explained in the context of this history. The crucial step was a process of

¹⁹ In *i*-stems, the acc. pl. ends in *-i*, not *-e*, showing that pre-Slavic $*-i(s) < *-ins$ — and thus presumably $*-u(s) < *-uns$ as well — lost its nasalization prior to the lowering of $*-i-$ to $*-e-$ and $*-u-$ to $*-q-$ in other contexts (cf. *pamětb*, *bqđq*, etc.). The creation of nasalized vowels was probably earlier before $*-s-$ than in other environments.

²⁰ Since the shortening was subphonemic and non-contrastive, it could have been relatively slight in absolute durational terms. The *general* shortening of final vowels in Slavic was a separate and later process.

²¹ No identity is implied with the rare glagolitic symbol/sound transcribed $-b̄$ in the nom. sg. masc. of present active participles in OCS (cf. Lunt 2001: 68).

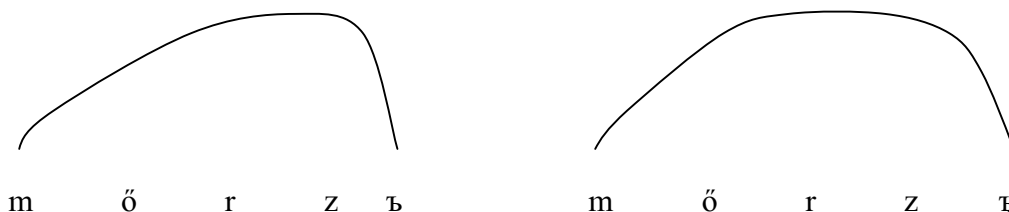
rephonologization, in which the contrast between nasalized *-ǫ̃ and non-nasalized *-ǫ was reinterpreted as an intonational contrast on the preceding syllable:

pre-Sl. gen. pl. *kǫ̃rvǫ̃ (rising intonation, nasalized jer)



PSl. gen. pl. *kôrvǫ (falling intonation, non-nasalized jer)

The rephonologization can be understood within the framework of a listener-oriented model of sound change (cf. Ohala 1981). Other things being equal, nasalized vowels tend to be phonetically longer than their oral counterparts.²² If we think of a disyllabic word of type a as consisting of a rising first syllable followed by a falling second syllable, the “fall” in a form like gen. pl. *kǫ̃rvǫ̃ would have been slightly longer, and hence more salient, than if the jer were not nasalized. In a minimal pair like the *o*-stem nom. sg. *mǫ̃rzǫ̃ ‘frost’ and its gen. pl. *mǫ̃rzǫ̃, the intonational profiles of the two forms would have been audibly different:



The longer coda of the gen. pl. would have been subphonemic, an automatic byproduct of the nasalization of the final jer. But learners of pre-Slavic, whose exposure to the rare nasalized jer would have been confined to the gen. pl. itself, could have made the mistake of interpreting the more leisurely rising-falling intonational curve of *mǫ̃rzǫ̃, which was otherwise unparalleled in jer-final words, as primary, and the final nasalization as mere background sonority. For such speakers, the phonological contrast between the nom. sg.

²² Delattre and Monnot (1968), focusing on the nasalized vowels of French, is a classic study. A related fact, also well known, is that long vowels are more likely than short vowels to be perceived as nasalized (Whalen and Beddor 1989).

and gen. pl. would have invited identification with the familiar acute : circumflex contrast in initial syllables. In the resulting reanalysis, **mǫrzb* was reparsed as **mōrzb*.

As expected, then, Stang's picture of the gen. pl. is basically correct. The secondary circumflex in PSl. **kōrvb*, etc. is indeed due to a loss of length in the following syllable — not a direct shortening of Proto-BS **-ōn*, nor even of pre-Sl. **-ūn*, but of the nasalized, and hence redundantly longer, jer that ultimately resulted from the original long-vowel ending. To appreciate the advantages of this chronology, consider the two main alternatives:

1. *Early (post-BS, early PSl.) shortening *-ōn > *-on with concurrent metatony.*

Objections: a) there was no parallel shortening of **-ēn* or **-ān* in pre-Slavic;²³ b) non-acute (< trimoric) **ō* otherwise became **ū* in final syllables; c) the intonational isolation of the gen. pl., if established at so early a date, would have been unlikely to survive the later accentual and intonational changes of Slavic proper.²⁴

2. *Pre-Sl. shortening *-ūn > *-un with concurrent metatony.* Objections: a) an ad hoc sound change eliminating the **-ṽN : *-ṽ̃N* contrast for high but not non-high vowels would be far “costlier” than the subphonemic, purely phonetic shortening of **-u* posited above;²⁵ b) as in the previous case, the relatively early date of the metatony would have lessened its chances of survival into Proto-Slavic and beyond.

²³ If **-ēn* had gone through an intermediate phase **-ě̃n* on the way to becoming **-e*, the shortening of **-ēn* to **-ě̃n* would have to have been later than the apparent change of old **-en* > **-e* (loc. sg. *kamene*). But the change of **-en* > **-e* must have been contemporary with the change of **-un* > **-u*, and thus later than the change of old **-on* > **-un* (which fed **-un* > **-u*). The new **-on* < **-ōn* would thus have “missed the boat,” arriving on the scene too late to have given **-b* without a train of ad hoc further assumptions.

²⁴ While there is no way to estimate such probabilities exactly, the circumflex in PSl. **kōrvb*, etc., would have been a natural target for analogical elimination from the moment of its creation. To the extent the circumflex survived in the individual Slavic languages, it was probably due to the fall of the jers, which truncated the gen. pl. and marked it as prosodically “special” on other grounds.

²⁵ It is one thing to suppose that final **-u*, being shorter than the nasalized low and mid vowels, would have had a yer-like treatment, giving **-b* rather than, say, a nasalized **-y*; it is quite another to suppose that the slightly shorter **-ū-* in **kōruūn* (vel sim.) would have triggered a radical phonological reanalysis that introduced a novel intonational alternation into the paradigm as a whole.

The conclusion is clear enough. Although more than one path can be drawn connecting the Slavic and PIE gen. pl. endings, the simplest and most direct is the one that leads from PIE **-oHom* to PSl. **-ǫ* by way of **-ūn* and **-ǫ*.

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