North Slavic -*ě* vs. South Slavic -*ę*:
A Problem of Forward Reconstruction*†

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Zum Andenken an Charlie Townsend
Na památku Charlieho Townsenda
Ku pamięci Charliego Townsenda
To the memory of Charles E. Townsend

Abstract: The long problematic correspondence of North Slavic -*ě* ~ South Slavic -*ę* in the *jo*-stem accusative plural and *jā*-stem genitive singular and nominative and accusative plural is best explained by positing a Proto-Slavic contrast within the soft *jā*-stems between gen. sg., nom. pl. *-*ē* and acc. pl. *-*ę̄*, which was leveled in different directions as NSl -*ě* and SSl -*ę*. With its nasal vowel, the acc. pl. ending must go back to *-*jāns*, thereby demonstrating that the PIE *eh₂*-stem desinence *-*eh₂s* > *-*ās* was remade to *-*āns* after the other declensional classes in the early prehistory of Slavic. The Baltic facts are consistent with a Proto-Balto-Slavic date for this innovation.

This article addresses a problem of nominal inflection which has long been noted in Slavic comparative grammars but for which scholarly opinion is arguably no closer to a consensus today than a century ago. This is the so-called *ě tertium* or $*\check{e}_3$, namely, the correspondence North Slavic -*ě* : South Slavic -*ę* in the accusative plural of *jo*-stems and the genitive singular, nominative plural, and accusative plural of *jā*-stems. Section 1 introduces the inflection of PSl *(j)o*- and *(j)ā*-stems and the sound changes involved in their development from PIE. Section 2 then reviews the long history of research on the problem of North Slavic -*ě* vs. South Slavic -*ę* and concludes that none of the phonological or analogical explanations proposed so far is satisfactory. Progress towards a solution can be achieved if one takes into full account the evidence of the Baltic and other Indo-European languages and employs the method of forward reconstruction from Proto-Indo-European to Proto-Slavic. It is argued that the PIE eh_2-stem accusative plural $*-eh_2s > *-ās$ was remade to $*-āNs$ after the other stem classes and that this is the source of the nasal vowel in South Slavic, where the ending -*ę* was generalized to the gen. sg. and nom. pl. forms; conversely, the northern dialects generalized gen. sg. and nom. pl. -*ě* to the acc. pl. of both *jā*- and *jo*-stems (section 3). The Baltic facts suggest, if they do not prove, that the remodeling of the *ā*-stem acc. pl. ending to $*-āns$ took place already in Proto-Balto-Slavic (section 4).

1. Introduction: Slavic *(j)o*- and *(j)ā*-stems

Slavic historical grammar traditionally distinguishes between masculine *o*- and *jo*-stems, which continue respectively PIE nonneuter stems in *-*o*- and $*-yo-$, and similarly between *ā*- and *jā*-stems, which continue respectively (post-)PIE stems in $*-eh_2-$ and $*-yeh_2-$. These inflectional types are illustrated in Table 1 on the following page with PSl **gardu* 'enclosure, fort, town', **māži* 'man, husband' (OCS *gradŭ*, *mǫžĭ*) and **ženā* 'woman, wife', **dūšā* 'soul' (OCS *žena*, *duša*), which continue respectively pre-PSl **gardas*, **mangjas* and **ženā*, **dauxjā*.[1]

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[1] The PSl reconstructions adopted here are those which in my view may be arrived at by applying the Comparative Method to the attested medieval and modern Slavic languages, with minimal reference to data from Baltic or other Indo-European languages. They are thus intermediate between the "Early Common Slavic" and "Late Common Slavic" of Shevelov (1964), Birnbaum (e.g., 1998), and others, though closer to the latter, and not nearly as radical as those of Holzer (e.g., 1998, 2003), who takes into account all the onomastic evidence from neighboring non-Slavic languages of the 1st millennium AD (see Kim forthcoming a).

The literature on PSl nominal inflection is enormous; for an extremely useful overview, see Olander 2015. Note that the ending of the *jo*-stem acc. pl. and *jā*-stem gen. sg., nom. pl., and acc. pl. is provisionally given in the table as $*-\bar{ę}$ (OCS -*ę*).

Table 1

nom. sg.	*gardu	*mǫži	*ženā	*dūšā[2]
gen.	*gardā	*mǫžā	*ženȳ	*dūšę̄
dat.	*gardū	*mǫžū	*ženē	*dūšī
acc.	*gardu	*mǫži (*mǫžā)	*ženą	*dūšą
inst.	*gardami	*mǫžemi	*ženają	*dūšeją
loc.	*gardē	*mǫžī	*ženē	*dūšī
voc.	*garde	*mǫžū	*žena	*dūše
nom./acc. du.	*gardā	*mǫžā	*ženē	*dūšī
gen./loc.	*gardū	*mǫžū	*ženū	*dūšū
dat./inst.	*gardamā	*mǫžemā	*ženāmā	*dūšāmā
nom./voc. pl.	*gardī	*mǫžī	*ženȳ	*dūšę̄
gen.	*gardu	*mǫži	*ženu	*dūši
dat.	*gardamu	*mǫžemu	*ženāmu	*dūšāmu
acc.	*gardȳ	*mǫžę̄	*ženȳ	*dūšę̄
inst.	*gardȳ	*mǫžī	*ženāmī	*dūšāmī
loc.	*gardēxu	*mǫžīxu	*ženāxu	*dūšāxu

The difference between the "hard" *o*- and *ā*-stem declensions and the "soft" *jo*- and *jā*-stem declensions is the result of the pre-PSl fronting of back vowels after *j* (i.e., *ja* > *je* and *ju* > *ji*), and various other conditioned sound changes, many specific to word-final position. As the Slavic *Auslautgesetze* remain hotly disputed and can hardly be examined here in detail, the remainder of this section will briefly present the views assumed in this study, to set the background for the discussion of the problematic ending -*ę* ~ -*ě* in sections 2–3.

The fronting of *ja* > *je* was itself preceded by the raising of *a* > *u* under certain conditions in final syllables, although the exact conditions for this raising are notoriously controversial, above all the phonologically regular reflex of word-final PIE *-os* > pre-PSl *-as*.[3] According to the general consensus, pre-PSl *a* > *u* before a nasal, as in the accusative singular of masculine *o*-stems and the first person singular of thematic aorists (Table 2 on the following page).

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[2] For the reconstruction of *jā*-stem nom. sg. *-ā*, dat./inst. du. *-āmā*, dat. pl. *-āmu*, inst. pl. *-āmī*, loc. pl. *-āsu* and *jo*-stem gen. sg. *-ā*, nom./acc. du. *-ā*, see fn. 25 below.

[3] Contrast the recent treatments of Vermeer 1991; Majer 2011; Kortlandt 2016: 91 (PIE *-os* > PSl *-o*, i.e., *-a*) and Olander 2012, 2015: 56 (PIE *-os* > PSl *-ə* > ONovg *-e*, elsewhere *-ŭ*). For the voluminous literature on this question, see Majer 2011: 352–53 and Olander 2012: 321–26, 2015: 102–4.

Table 2

	PIE	PBSl		PSl
o-stem masc. acc. sg.	*-om >	*-an >	*-un >	*-u (OCS -ŭ)[4]
thematic aor. 1sg.	*-om >	*-an >	*-un >	*-u (OCS -ŭ)

From the thematic aorist (e.g., OCS *padŭ* 'I fell'), the ending *-u(n) spread to the sigmatic aorist, replacing the expected reflex of PIE *-m̥ (e.g., PIE *rḗk-s-m̥ > *rēksin > *rēxi(n) → PSl *rēx-u > OCS *rěxŭ* 'I said'), as well as the specifically Slavic extended aorist (e.g., PIE *ĝneh₃-m̥ → PSl *znā-x-u > OCS *znaxŭ* 'I knew').[5] The 1sg. nom. personal pronoun also shows this development: PIE *eĝh₂-om (Ved *ahám*, Av *azəm*) > PSl *ēzu > OCS *azŭ*, Blg *az*, Sln *jaz*. The gen. pl. may as well, though its reconstruction remains controversial: if the PIE ending was *-Hom, this would have become *-on > *-an > *-un > PSl *-u (OCS -ŭ) and could subsequently have been extended to the *o*- and *ā*-stems.[6] On the other hand, raising apparently did not affect pre-PSl *ā (< post-PIE *ā, *ō), on the evidence of PIE *ā*-stem acc. sg. *-eh₂m > PBSl *-ān > PSl *-ǭ (OCS *-ǫ*).[7]

There was also a separate raising of pre-PSl *ā > *ū before word-final *-(n)s, to judge by the ending of the masculine *o*-stem accusative plural and of the *ā*-stem genitive singular and nominative plural (Table 3 on the following page).[8]

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[4] Orr (1985: 23–25, 1986, 1988, 2000: 134–37, 142–45) argues against the whole notion of *Auslautgesetze* and thinks that the regular reflex of PIE *-om was *-ǫ, but this necessitates massive interparadigmatic analogy to explain the forms discussed here. Note also that the reconstruction of PIE acc. sg. *-o-m vs. *-u-Ø, *-i-Ø (Orr 2000: 55–69) finds absolutely no support in the comparative evidence. Kortlandt (1978: 286–90, 1983: 173–74, 2016: 88–89) assigns the raising *-om > *-um to PBSl on the basis of Old Prussian forms in *-on* as well as accentual considerations, which cannot be entered into here.

[5] See Olander 2015: 310, with references to alternative views.

[6] See Olander 2015: 255–57, with references to alternative views. On the reconstruction of the PIE genitive plural ending, see among others Kortlandt 1978 (*-om); Ringe 2006: 41, 2017: 50, 51 (*-oHom, thematic *-o-oHom); Kümmel 2013 (PInIr *-ăHăm < PIE *-oHom or *-eHom). Jasanoff (2014; 2017: 152) proposes instead that PIE *-oHom > *-ōn > *-ūn, with the same raising of nonacute *ō > *ū as in *n*-stem nom. sg. *-ō > *-ū > PSl *-ȳ (OCS *kamy* 'stone', Pol *kamy-k* 'pebble'; see Jasanoff 1983: 141, 146–49, 2017: 57–58, and already Streitberg 1891: 294–96); this in turn gave a unique segment *-u̯, reinterpreted as PSl *-u with metatony of the preceding syllable peak.

[7] Cf. Viredaz 2009: 9 and Olander 2015: 116–18 with refs.; pace Matasović 2008: 123–24, 192.

[8] First proposed by Hirt (1893: 353–54), followed by Meillet (1897: 96, 104, 125–26, 1902: 109, 1914–15: 6–7, 1934: 151, 398), Vondrák (1898: 337, 338–39, 1904: 187, 1906: 52–53, 108; later abandoned, cf. Vondrák 1924: 151–52), Lehr (1917: 39), Milewski (1932: 27–29), and

Table 3

	PIE	PBSl					PSl
o-stem masc. acc. pl.[9]	*-ōms	> *-ōns	> *-āns	> *-ūns	> *-ūs	>	*-ȳ (OCS -y)
ā-stem gen. sg.	*-eh₂es	> *-ās	>		*-ūs	>	*-ȳ (OCS -y)
ā-stem nom. pl.	*-eh₂es	> *-ās	>		*-ūs	>	*-ȳ (OCS -y)

Post-PIE *-ās in the *ā*-stem gen. sg. and nom. pl. thus would **not** have become PSl *-ā and merged with the nom. sg., and there is no need to ascribe the ending *-ȳ to analogical extension from the acc. pl., as assumed by most scholars ever since Scherer (1868: 291, 474–75).[10] The other popular explanation of OCS *ā*-stem gen. sg. -y as a transfer from nasal-stem inflection, usually *-ŏn-s vel

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Galabov (1973: 10); for other references, see Hujer 1910: 100 and Olander 2012: 332, fn. 85. Zucha (1986: 134–35) sets up a change *-ās > *-ə̄s, followed much later by *ə̄ > *ȳ, but both the marginal phoneme *ə̄ and the proposed sequence of *Auslautgesetze* are postulated entirely to account for the notoriously refractory ending NSl -a ~ SSl -y of the present active participle masc. nom. sg. and neut. nom./acc. sg. On more recent arguments for *-ās > PSl *-ə̄, see below in the main text.

It will be seen from the discussion here and below that I see no evidence for reflexes in Slavic of the distinction between (post-)PIE or PBSl *ā and *ō in final syllables, with two exceptions: nonacute (i.e., "circumflex") *-ō in absolute word-final position, which was raised in *n*-stem nom. sg. *-ō > *-ū > PSl *-ȳ (see above, fn. 6); and the diphthong *-ōy(s), where the second component *y was assimilated to *w in PIE *o*-stem dat. sg. *-ōy > *-ōw > PSl *-ū (contrast *eh₂*-stem *-eh₂-ey > *-āi > PSl *-ē), instr. pl. *-ōys > *-ōws > *-ū(w)s > PSl *-ȳ (Meillet 1934: 153–54, 407–08, 410; Vaillant 1958: 31, 37). Note that word-final *-s may have already become *[h] by this stage, as in many other IE languages (Kortlandt 1979: 267).

[9] On the reconstruction of PIE *-ōms, see section 3 with fn. 27.

[10] For extension of acc. pl. to nom. pl. alone, cf. Schleicher 1852: 242–43, 1861–62: 433–34, 1871: 519; Miklosich 1879: 301; Brugmann 1890: 663, 675 (← *o*-stem *-ons), 1909: 214; Zubatý 1893: 511–12 (← *o*-stem *-ōns); Vondrák 1908: 8, 1928: 6; Hujer 1910: 74–76, 1920–21: 44–45; Il'inskij 1916: 359; Leskien 1919: 112; Mikkola 1950: 33–34; Rosenkranz 1955: 82; Schelesniker 1964: 37–38 (← *o*-stem *-ons); Kiparsky 1967: 92; Georgiev 1969: 93; Holzer 1980: 8, 10; Pohl 1983: 32, 1985: 374; Lamprecht 1987: 85, 90; Aitzetmüller 1991: 88, 90. For both nom. pl. and gen. sg., cf. J. Schmidt 1883: 338; Ljapunov 1905: 35–37; Porzeziński 1914: 108, 1916: 34, 38, 39 (← *o*-stem *-ons); Fortunatov 1919 [1957]: 171; Vaillant 1950: 211, 1958: 81, 83; Mareš 1964: 168 [2001: 39]; Bräuer 1969: 104, 106, 126, 127; Newman 1971: 332–33; Kortlandt 1975: 47, 1983: 180–81; Moszyński 1984: 225, 2006: 264–65; G. Schmidt 1985: 396; Zucha 1986: 136; Schenker 1993: 88, 1995: 124–25; Beekes 1995: 182–83; Townsend and Janda 1996: 144, 145, 163; Igartua 2001: 281–90, 2005a: 209–11, 227, 2005b: 290–97; Halla-Aho 2006: 159–61; Beekes 2011: 200; Janda 2014: 1567, 1569, 1572, 1577. The arguments against analogical spread of the acc. pl. ending, under the supposed influence of the feminine *i*-stems, have been ably summarized by Olander (2015: 132–33).

sim., is motivated entirely by the soft ending -*ę*. As will be argued below in section 3, the latter was not originally proper to the gen. sg. at all, so that these appeals to analogy, always improbable in any case, are likewise unnecessary.[11]

The same raising before **-s* is seen in the OCS clitic pronouns 1pl. *ny*, 2 *vy*, which have both accusative and dative value and so are more likely to continue **nōs*, **wōs* than remodeled **nǒns*, **wǒns*, with **-ns* from the nominal animate acc. pl. (cf. OPr *mans*, *wans*; see already Meillet 1897: 96).[12] Viredaz (2009: 13, 16–22) and Olander (2012: 331–32, 2015: 56, 67) independently assume a raising of pre-PSl **-ās > *-ə̄s > PSl *-ə̄ >* ONovg *-ě* vs. *-y* everywhere else, parallel to the development of pre-PSl **-ăs > PSl *-ə >* ONovg *-e*, elsewhere *-ŭ*,[13] but are then forced to seek ad hoc explanations for *ny*, *vy*: either borrowing from OR (Viredaz 2009: 26) or PSl **-ə̄ >* ONovg *-y* after a labial in *vy*, whence by analogy *ny* (Olander 2015: 254). The presence of the pronouns *ny*, *vy* even in the most vernacular ONovg documents rather suggests that the sequence **-ōs >* pre-PSl

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[11] See Mueller 1870: 264–65; Brugmann 1890: 572–73, 1908: 191–93, 1909: 155, 158; Zubatý 1897: 23–27; Mikkola 1897: 249–50, 1950: 33; Hujer 1910: 111–12, 1920–21: 42–43; van Wijk 1916: 462; Leskien 1919: 109, 1955: 79; Noha 1924: 257; Vondrák 1924: 151–52; Rosenkranz 1955: 81; Kiparsky 1967: 83–84; Szemerényi 1970: 174, 1990: 200, 1996: 189 (**-ans ← *-ās*); Holzer 1980: 10; Lamprecht 1987: 85–86, 90; cf. also Schleicher 1861–62: 454, 1871: 543 (gen. sg. **rankā-n(-as)* with inserted nasal, or ← acc./nom. pl.); Il'inskij 1916: 357 (gen. sg. **-āms ← *-ās* after acc. sg. **-ām*); Otrębski 1921 (outdated comparison with other instances of secondary *-n-* in Skt and elsewhere); Sandbach 1925 (*-y < *-ūns < PIE *-ōn-s*; *-ę < *-jūns* or *< PIE *-ēn-s*). A version of this hypothesis takes the gen. sg. to be generalized from PIE heteroclitic *r/n*-stem gen. sg. **-en-s → *-on-s* (Lohmann 1930; Tremblay 1996: 49, fn. 67; 50, fn. 70); but even if one derives PSl **vodā* 'water' from PIE collective **wéd-ōr*, gen. **ud-én-s*, it is hard to imagine that this and one or two other nouns of like origin could have been a sufficient basis for generalizing a new ending to all *ā*-stem nouns, adjectives, and pronouns.

Other explanations are too improbable morphologically to merit serious scrutiny: an original loc. sg. ending comparable to Ved fem. loc. sg. *tásyām* 'this' (Schelesniker 1962, 1964: 26–29, 33–34, 1967: 125, 1976; Trummer 1978: 261; Aitzetmüller 1991: 86–87, 89–90 with fn. 139; cf. already Schleicher 1852: 236; Leskien 1876: 123–24; Miklosich 1876: 4, 1879: 301); PIE gen. pl. **-om* + sg. **-s* (Knobloch 1954–55, 1956: 239–41); a combination of the two preceding (Pohl 1983: 41–42, 1985: 380–82 [gen. sg. **-ās → loc. *-ai* + postposition **-en* + gen. sg. **-s*!]); a generalized *ū*-stem abl. sg. **-ūd/t*, formed after the model of *o*-stem **-ōd/t* (Georgiev 1969: 88–89); generalization of **-ū- < *-ā-* to gen. sg. and nom. and acc. pl. **-ū-N* under unclear conditions (Feinberg 1978: 115); or transfer from possessive/attributive adjectives in **-n-* under Finnic influence (Greenberg 2003). Ved *-ām* in loc. sg. *tásyām*, *devyā́m*, *grīvā́yām* (to *devī́-* 'goddess', *grīvā́-* 'neck') is generally agreed to be an innovation for PInIr **-yā* (cf. Av *grīuuaiia*, OP *Aθurāyā* 'in Assyria'; Debrunner and Wackernagel 1930: 43–44 with older refs.).

[12] PBSl **nōs*, **wōs* are in turn from the PIE atonic forms **nos*, **wos* (cf. Ved *naḥ*, *vaḥ*), which stood beside tonic **n̥s-mé*, **us-wé* (Katz 1998: 96–97, 195–225; Ringe 2006: 57, 208, 2017: 70, 233). The same lengthening is found in Lat *nōs*, *vōs*.

[13] First posited by Zaliznjak (1988: 170–71).

*-ās became -y there as well, and that the ending -ě of the ā-stem gen. sg. forms is an analogical import from the soft declension (see section 2).[14]

There are thus no obstacles to assuming a development *-ās > *-ūs > PSl *-ȳ, and likewise *-ä̃ns > *-ŭ̃ns > *-ūⁿs > *-ūs > PSl *-ȳ in the acc. pl. of masculine o-stems, with compensatory lengthening accompanying nasalization (if the vowel was first shortened in pre-PSl) followed by loss of nasality in a high vowel.[15] In contrast to the raising of *-aN > *-uN, the raising of *-ās > *-ūs must have followed the fronting of back vowels after *j judging from the corresponding jā-stem forms, to which we now turn.

2. North Slavic -ě vs. South Slavic -ę in the jo- and jā-stem Declension

A complication for all treatments of Slavic *Auslautgesetze* is the ending of the jo-stem accusative plural and of the jā-stem genitive singular and nominative and accusative plural. Sobolevskij (1881) first established that, while OCS manuscripts consistently attest the ending -ę (e.g., acc. pl. конѩ 'horses'; gen. sg., nom./acc. pl. доушѩ 'souls', землѩ 'lands'), the oldest North Slavic sources have reflexes of -ě, namely OR -ě (конь, доушь), ONovg -ě (koně, vožě 'reins'), OCz -ě (duʃye = dušě); cf. also Pol -e (konie, dusze), USor -e (konje, duše), Ukr -i (коні, души), all continuing *-ě.[16] This -ě is sometimes referred to in Slavic historical linguistics as ě *tertium* or *ě₃*, to distinguish it from the other sources of Late Common Slavic *ě (*ě₁ < PBSl *ē; *ě₂ < PBSl *ai). The same divide is observable in pronominal inflection (e.g., OCS masc. acc. pl., fem. nom./acc. pl. ję

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[14] I thank Marek Majer for clarifying this point; see his discussion in Majer 2017: 141–42, fn. 278.

[15] Forms of the 2sg. root aorist such as OCS *da*, BCS *dâ* 'gave' < PIE *deh_3-s, OCS *děla* 'worked' < *-eh_2-s are hardly probative, since they could simply be analogical to the 3sg. (Lehr 1917: 39; Milewski 1932: 28–29; Galabov 1973: 16; Zucha 1986: 135–36; Viredaz 2009: 12; Olander 2012: 332; pace Hujer 1910: 75; Arumaa 1964: 114; Kortlandt 1979: 265, 1983: 180). On the loss of nasalization in word-final high vowels, see section 3.

Another instance of PIE *-ōs > PSl -y may be hidden in ū-stem nouns such as *zŭly* 'husband's sister' < *$ĝ l h_2 ōs$ (Lat *glōs* 'id.', Gk *gálōs* 'husband's sister, brother's wife'; Witczak 1998: 133–35) or *ljuby* 'love', if from an s-stem amphikinetic abstract *$léwbh$-ōs to PIE *$lewbh$- 'be pleasant' (Majer 2017: 141–45). The rest of the paradigm would then be analogical to the nom. sg., on the model of inherited PIE stems in *-uh_2- such as *svekry* 'mother-in-law', acc. *svekrŭv-ĭ*, gen. *svekrŭv-e*, etc. < PIE *$swek̂ruh_2$.

[16] ONovg -ě also occurs with hard stems (e.g., o-stem acc. pl. *kolotokě* 'wooden hammers', ā-stem gen. sg., acc. pl. *kuně* 'kuna(s)', nom. pl. *kělě* 'all'); this is surely a generalization of the soft-stem ending (Vermeer 1996: 43–44, 48–51; Zaliznjak 2004: 146–47, 150; Kortlandt 2016: 91), rather than a phonologically regular development (Viredaz 2009: 16–22; Olander 2012: 333–35, 2015: 67, 132, 231, 248, 251; see above, section 1). Later Western South Slavic likewise generalizes the soft ending -e < *-ę (e.g., BCS, Sln *glave* 'heads').

'them', *moję* 'my' vs. OR *jě, mojě*), and thus in the definite long forms of adjectives (e.g., OCS *velikyję* vs. OR *velikyě*, ONovg *velikěě* 'great'). All four of these inflectional slots, *jo*-stem acc. pl. and *jā*-stem gen. sg., nom. pl., and acc. pl., thus show the same pattern of hard- and soft-stem endings, *-y* vs. *-ě* in North Slavic and *-y* vs. *-ę* in South Slavic.[17]

The origin of this discrepancy is a perennial problem of Slavic historical morphology, which has attracted the attention of dozens of scholars over the past 130 years.[18] The most widespread view takes both reflexes to be phonologically regular, with early denasalization of the front mid vowel in the North Slavic dialects.[19] Thus van Wijk (1916: 462–63) proposed that pre-PSl *-jens* was denasalized in WSl and ESl (*-ens* > *-ę̄s* > *-ēs* > *-ě*) but not in SSl (*-ens* > *-ę̄s* > *-ę*), while Šaxmatov (1915: 13–14) set up a Common Slavic vowel (*-öns* >) *-ę̆*, which became *i̯ę* or *i̯ä̈* and then lost its nasalization in OR *ě*, OP *e*; similarly, Fortunatov (1919 [1957]: 167–72; cf. Porzeziński 1914: 34) thought that *-jons* > *-juns* > *-ǖ* > *-ǭ* > *-ę̂ⁱ* > *-i̯ę̂* fell together with *-ę̄*, *-ę* as OCS *ę*, but with *-i̯ê* as OR *ě*. Van Wijk's hypothesis was modified by Noha (1924: 258–63, 1927: 66–67 with fn. 1) to the effect that the change *-ens* > *-ę* took place earlier in the northern dialects and so yielded an oral vowel, but retained its nasality in the South.[20] Somewhat differently, Diels (1914) thought that *-ę* was denasalized after a "stark erweicht" consonant ("strongly softened", i.e., a yodization product), so that *-Cję* > *-C'ę* > *-C'ě*.[21] Yet another solution was suggested by Mareš (1963: 64, 1969: 110–11 [1999: 92]), for whom both *-i̯ons* and *-i̯āns* yielded an "unsystemic trimoric triphthong" *-eNZ*, which with loss of the *-Z* became SSl *-ę*, but in NSl underwent compensatory lengthening to *-ę̄* and then denasalization to *-ě*. Other authors have simply chalked up the different reflexes to phonetic fluctuation, for example Vondrák (1924: 149), who declared vaguely that "the aversion to *-es* appears in one part of the Slavic speech area itself to have led to *-ě* from *-ēns*, cf. OR, OBlg gen. sg. *dušě*…", or Vaillant (1950: 215, 216, 1958: 48–49, 87–88), for whom "the double treatment *-ę* and *-ě* … in origin rep-

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[17] Charlie Townsend was fond of representing the correspondence NSl *ě* ~ SSl *ę* with the mnemonic symbol *ę̌*, which even has the *háček* and *ogonek* in the correct geographic positions!

[18] For useful surveys, see Arumaa 1985: 149–51; Orr 2000: 116–22; Igartua 2005a: 158–63, 199–212, 226–35; Olander 2015: 129–33, 230–31, 246–48. For the older literature, see Hujer 1910: 74–76, 98–108, 110–12, 1920–21: 47–49; Noha 1924: 244–57.

[19] See the useful survey of Orr 2000: 117–19.

[20] An early loss of nasality in East and West Slavic is also assumed by Liewehr (1955: 66–67) and Arumaa (1964: 116 *-i̯ens* > *-i̯ēs* > *ě*) and given as a possibility by Bräuer (1969: 74–75, 126). Il'inskij (1916: 357–58) instead thought that PSl *-'ens* lost the nasal early in WSl and ESl, followed by compensatory lengthening of *-es* > *-ě*.

[21] Quotes in this paragraph, in fn 22, and in fn 34 have been translated from the original into English by the author.

resented only a rather slight variation, because -ě was the denasalized form of -ę: surely a simple vacillation of pronunciation which only afterwards became a dialectal divergence" (Vaillant 1958: 48–49; followed by Kiparsky 1967: 56, 84).[22]

Aside from their evidently ad hoc nature, all of these treatments require various analogical explanations for the pan-Slavic masc./neut. nom. sg. -ę in the present active participle of je- and i-presents, which can only continue a final sequence of the shape pre-PBSl *-jants, *-ints.[23] Furthermore, they do not address the question why there was no parallel tendency to denasalize the nom./acc. sg. ending -ę of the neuter n- and nt-stem nouns, or for that matter the back nasal vowel *ǫ in word-final position. As decisively argued by Nitsch (1928), there is also no way to derive OPol -e from PSl *-ę, which otherwise always retains its nasality, even in the accusative clitics 1sg. mię, 2sg. cię, 3sg. się.

More recently, Viredaz (2009: 22–23) reconstructs a separate vowel for Proto-Slavic: pre-PSl *-ās, *-ans > PSl *-ā̃ > ONovg -ě, elsewhere -y; the allophone after soft consonants became NSl -ě, but SSl -ę with "spontaneous nasalization", which is hardly less ad hoc than the assumption of early denasalization in NSl. Olander (2015: 56), apparently independently of Viredaz, proposes a similar development of *-āns, *-ōns > PSl *-ə̃n > ONovg -ě, elsewhere -y, but thinks that the soft counterpart gave both dialectal variants directly: *-jāns, *-jōns > PSl *-i̯ə̃n > SSl -ję ~ NSl -jě (Olander 2012: 334, 2015: 248, 251). The jā-stem acc. pl. was extended to the nom. pl. and gen. sg. in South Slavic, replacing the expected reflex of *-jās > PSl *-i̯ə̄ (> NSl -jě). However, the ONovg hard-declension forms in -ě are more simply explained as analogical transfers from the jo- and jā-stem declension (see above, fn. 16), and the evidence of ONovg ny, vy also argues for a unitary outcome of (post-)PIE *-ā(n)s, *-ō(n)s > *-ā(n)s > *-ū(n)s > PSl *-ȳ (section 1). In any case, the assumed dialectal distribution of the reflexes -ję and -jě is ad hoc: nowhere else in Olander's model of Slavic *Auslautgesetze* is there a split between northern and southern treatments of a word-final sequence.

Since it is not possible to derive both soft-stem endings from a single preform, other scholars have proposed morphological explanations for the co-

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[22] Similarly Zucha 1986: 134 (under "Denasalierung i̯, u̯ → ī, ū": "In SSl *daušjęs was preserved, while in NSl this too was denasalized to *daušjēs"), Townsend and Janda 1996: 52–53 ("[i]n SSl…the result is ę, regardless of position, but in WSl and ESl (= NSl), this vowel could denasalize to ě (also known as ě₃) in final position").

[23] This holds no matter how one explains the puzzling split of NSl -a vs. SSl -y in the present active participle of e-presents, another notorious crux of Slavic historical grammar. See the useful survey by Olander (2015: 88–93), although I cannot follow his own proposal of a development PIE *-(y)onts > PSl *-(j)ən.

existence of *-ě* and *-ę* in the oldest Slavic languages.[24] One subset of these, going back to Jagić (1893: 522–23), sees *-ę* as the original PSl ending in all the inflectional slots, namely the gen. sg., nom. pl., and acc. pl. of *jā*-stems as well as the acc. pl. of *jo*-stems. The reflexes of *-ę* were replaced with *-ě* in the NSl languages to avoid syncretism with the *jā*-stem nom. sg. and *jo*-stem gen. and animate acc. sg. in *-a*. But this approach, adopted among others by Furdal (1961: 60–62) and Newman (1971: 333–37), is based on several unverifiable assumptions about prehistoric Slavic phonetics, namely, that *ę* was a low front [ä] (i.e., [æ]) and so following denasalization was in danger of falling together with *a* [ä] after a palatalized consonant, or that *-ę̄* merged in the Lechitic dialects with the acc. sg. and inst. sg. to create an undesirable homophony in nouns of the *wola*-type (thus gen. sg., nom./acc. pl. *wol'ę̄> *wol'ǭ like acc. sg. *wol'ǭ, inst. sg. *wol'ejǭ > *wol'ǭ; Newman 1971: 334–37). Even supposing that speakers of OR, OCz, or OP felt the need to eliminate the case-number syncretism in these nouns, why did they introduce *-ě*, rather than simply take over *-y* from the hard *ā*-stem declension?[25]

Alternative analogical accounts are no less problematic. Schelesniker (1962, 1964: 26–29, 1967: 125, 1976; cf. Igartua 2005a: 211–12) took NSl *-ě* to be the regular sound-change outcome of pre-PSl *-jās, but SSl *-ę* (and pan-Slavic *-y*) from an alleged locative ending *-ōm comparable to Skt fem. loc. sg. *tasyām*; aside from the functional difficulties and the unfounded assumption that Slavic did not inherit the genitive from PIE (see above, fn. 11 ad fin.), the latter ending is almost certainly an Indo-Aryan innovation (see above, fn. 11 ad fin.). Shevelov (1964: 334–35) suggested that NSl *jo*-stem acc. pl. *-ě* goes back to an apocopated *-ē ← *-ēN, with final nasal dropped after the other *jo*-stem case forms; but this ad hoc analogy hinges on the author's idiosyncratic view of word-final nasals and in any case will not work for the *ā*-stems, where both the acc. sg. and inst. sg. retained their nasal vowel into PSl.[26] Schmalstieg (1968: 48–50; 1971:

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[24] The suggestion that SSl *-ę* vs. NSl *-ě* goes back to fluctuation between *-ns and *-s in PSl or even PIE (see e.g., Endzelīns 1913: 112, Otrębski 1921: 12–13) is rooted in outdated conceptions of IE historical morphology. On the reconstruction of the PIE animate acc. pl. endings, see section 3 below.

[25] I do not share the conventional view that *-jā(-) was fronted to and fell together with *-jē(-), followed by analogical restoration to *-ā(-) in *jā*-stem nom. sg. *-ā, acc. sg. *-ān > *-ǭ, dat./inst. du. *-āmā, dat. pl. *-āmu, inst. pl. *-āmī, loc. pl. *-āsu (OCS *-a, -ǫ, -ama, -amŭ, -ami, -axŭ*) as well as *jo*-stem gen. sg. *-ā and masc. nom./acc. du. *-ā (OCS *-a*). Spellings with *ě* in Glagolitic OCS manuscripts surely indicate a **phonetic** fronting of PSl *ā, but not **phonemic** merger with the usual reflex of PSl *ē (i.e., *ě*). As for the backing of *ě > *a after *č, *š, *ž in for example OCS, OR *ležati* 'lie', *časŭ* 'time', this sound change could have been restricted to nonfinal position, hence its absence in OR, OCz gen. sg., nom./acc. pl. *dušě*.

[26] Interestingly, he speculates that the failure of this analogy in SSl "might have been due to the earlier rise of nasal vowels in the South" (Shevelov 1964: 335), exactly the

142–43) identified the source of NSl *-ě* vs. SSl *-ę* in the long-form adjective, for example **sin'-ens-ens* 'blue' > **sin'-ens-ēs* > **sin'-ęs-ē* → NSl **-ějě* (cf. **zemj-ě* 'earth') but SSl **-ęję* (whence **zemj-ē* → **zemj-ę*), but this explanation requires a long series of often improbable analogical changes; furthermore, soft-stem adjectives were proportionally much rarer than *jo-* and *jā-*stem nouns, making the presumed analogy even less likely. Georgiev (1969: 98–99) similarly thought that NSl *-ě* and SSl *-ę* could continue sandhi variants **-jās* and **-jāns* of the acc. pl. ending, which was extended to the nom. pl. and then to the gen. sg. (for invariant **-jās*); but the assumed sandhi development **-Vns C- > *-Vs C-* is unsupported by independent examples, and the survival of isofunctional allomorphs for any length of time is inherently improbable and should be considered only as a last resort.

3. Forward Reconstruction and a New Proposal

The only remaining possibility—one that has rarely been considered in the literature to date—is that one or more of the inflectional slots in question originally had **-ě* (or its predecessor), the other(s) **-ę* (or its predecessor), and different Slavic dialect areas generalized different endings, producing a uniform alternation *-y ~ -ě* in the North and *-y ~ -ę* in the South. The Slavic languages themselves offer no hints of a distinction between **-ě* and **-ę* in any of the relevant case forms, but the Proto-Slavic situation can be recovered with some confidence if we reconstruct forward from PIE. The PIE accusative plural of animate *o*-stems is usually given as **-oms*, but certain forms rather point to a preform **-ōms* (e.g., Ved *-ān* and its sandhi variants *-āṃ V-*, *-āṃś c-*, *-āṃs t-*, or Lith *-us*, *-úos-ius*).[27] For *eh₂*-stems, the genitive singular goes back to PIE **-eh₂-es* (> Lith *-õs*, Gk *-ãs/-ẽs*), as does the nominative plural (> Lith *-os*). The accusative plural involves a complication, however: the expected shape of the ending is ***-eh₂-ms*, but it has long been assumed that this sequence was reduced already in PIE to **-ās* (J. Schmidt 1883: 337–38; Brugmann 1909: 225–26), or in modern laryngeal notation **-eh₂s*.[28] The latter is directly continued in Indo-Iranian (Ved *-āḥ*, Av *- å*), Germanic (Goth *-ōs*), and Italic (South Picene

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[27] See Kim 2012; Olander 2015: 250; otherwise Kortlandt 2016: 92–93 (PIE **-ons* with laryngeal adopted from **-aHns* in BSl). A long-vowel ending was proposed for PIE already by Hanssen (1885: 615, fn. 1 [Gk *-ons < *-ōns*]; cf. Zubatý 1893: 508, 1896: 273, fn. 1; Vondrák 1898: 337–38, 1904: 190–91; Hujer 1910: 106), but was rejected by Brugmann (1890: 672, 1909: 224–25) and thereafter seems to have passed out of currency except among Balticists (cf. Stang 1965: 294–95, 1966: 186; Zinkevičius 1980 I: 211 [**-ōns*]). On the Baltic forms, see section 4.

[28] On the consequences for pre-PIE phonology of the deletion of ***m* in ***-eh₂ms* > **-eh₂s*, see Kim forthcoming b.

-as), but was remodeled after other nonneuter stems in Greek (*-ās → *-āns > Proto-Greek *-ans > Cretan -ans, Attic-Ionic -ās, Lesbian -ais, etc.) and, following the Proto-Sabellic change of word-final *-ns > *-f, in Oscan (*-ās → *-āfs > **-ass**) and Umbrian (*-ās → *-āf > **-af**).[29]

It is likely that Slavic, like Greek and Sabellic, also remodeled the eh_2-stem accusative plural ending to *-āNs for the following reason. If PIE acc. pl. *-eh_2s was inherited unchanged in Balto-Slavic, it would have become *-ás, contrasting only in intonation with nonacute ("circumflex") *-ās in the gen. sg. and nom. pl. Since there is no evidence that intonation would have affected the evolution of word-final sequences *-V̄s in Slavic, all three of these case endings should have developed by sound change to -y in hard stems (see above) and -ě in soft stems (Table 4).

Table 4

	PIE	PBSl	PSl
jā-stem gen. sg.	*-yeh₂es >	*-jās > *-jēs >	*-ē
jā-stem nom. pl.	*-yeh₂es >	*-jās > *-jēs >	*-ē
jā-stem acc. pl.	*-yeh₂s >	*-jás > *-jēs >	*-ē

But in that case, the only source for the SSl ending -ę in the soft jā-stem declension would have been the accusative plural of jo-stems, where *-ę̄ is the expected outcome of *-jens < pre-PSl *-jans. One would thus have to assume that SSl introduced a new allomorph -ę into the acc. pl. of jā-stems by interparadigmatic analogy to the jo-stems, then extended this ending to the gen. sg. and nom. pl., whereas NSl conversely replaced the acc. pl. of jo-stems with that of the jā-stems (Zubatý 1893: 511–15; cf. Vondrák 1904: 189–91, 1906: 53, 108, 1908: 3; Hujer 1910: 99–105, 1920–21: 37; Fortunatov 1919 [1957]: 169–72; Schelesniker 1964: 35–40).[30]

Although this scenario cannot be ruled out, the variation between NSl -ě and SSl -ę finds a much more straightforward diachronic motivation if there was a contrast of endings **within** the jā-stems already in Proto-Slavic. Since

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[29] On the Italic endings, see Rix 1986. The ambiguous Latin ending -ās therefore probably also continues Proto-Italic *-ās (Meiser 1998: 133; Weiss 2011: 236).

[30] This was apparently also the opinion of Aitzetmüller (1991: 84, 90–91) for the SSl jā-stem nom. and acc. pl. -ę, but he connected gen. sg. -ę with the Skt loc. sg. -ām, which is an innovation of Indo-Aryan (see above, fn. 11 ad fin.). Zubatý (1893: 516–17) suggested that NSl replaced jo-stem acc. pl. *-ę with -ě to avoid homophony with nom. sg. *-(j)a, whereas SSl replaced jā-stem acc. pl. *-ě with -ę (whence also nom. pl., gen. sg. -ę) for the same reason. On Jagić's modification of this hypothesis and its weaknesses, see section 2.

there can be no question of a phonological source for SSl *-ę* in the gen. sg. or nom. pl., the original distribution must have been *-ē* in those cases and *-ę̄* in the accusative plural. The latter would then continue *-jēns < *-jāns ← *-jās < PIE *-yeh₂s*, with the same kind of remodeling as in Proto-Greek *-ans* or the Sabellic languages (Meillet 1897: 125–26, 1914–15: 6–7, 1934: 398–99; Vaillant 1958: 83–84). Crucially, the hard-stem endings all merged as *-ȳ*, with loss of nasality in high vowels as in the acc. pl. of *i*- and *u*-stems: PIE *-ims*, *-ums > PBSl *-ins*, *-uns > *-īs*, *-ūs > PSl *-ī*, *-ȳ (OCS *-i*, *-y*).[31] The evolution of the three case forms of *ā*-stems, along with the acc. pl. of *o*-stems, was thus as in Table 5.

Table 5

	PIE		PBSl				PSl
ā-stem gen. sg.	*-eh₂es	>	*-ās	>		*-ūs >	*-ȳ
ā-stem nom. pl.	*-eh₂es	>	*-ās	>		*-ūs >	*-ȳ
ā-stem acc. pl.	*-eh₂s	→	*-ā́ns	>		*-ūns > *-ūs >	*-ȳ
o-stem acc. pl.	*-ōms	>	*-ōns	>	*-āns >	*-ūns > *-ūs >	*-ȳ
jā-stem gen. sg.	*-yeh₂es	>	*-jās	>	*-jēs >		*-ē
jā-stem nom. pl.	*-yeh₂es	>	*-jās	>	*-jēs >		*-ē
jā-stem acc. pl.	*-yeh₂s	→	*-já́ns	>	*-jēns >		*-ę̄
jo-stem acc. pl.	*-yōms	>	*-jōns	>	*-jāns > *-jēns >		*-ę̄

As this table shows, I assume that raising of *ă > *ŭ before nasals preceded fronting of back vowels after *j*, which in turn preceded raising of final *-ās > *-ūs (section 1 ad fin.). Whatever the phonetic realization of the pre-PSl acc. pl. ending *-āns*, the sequence of vowel + nasal was treated as phonemically equivalent to *ā* and so escaped the first raising, only later becoming *-ūns*. On the other hand, the soft endings underwent fronting but not the second raising: *-jās > *-jēs > *-ē*, *-jāns > *-jēns > *-ę̄*.[32] Following the dissolution of Proto-

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[31] See Halla-Aho 2006: 144–59 and Olander 2015: 243–46, with a review of competing views. Lunt (2001: 227, 229) assumes a second round of denasalization in *-ŏns*, *-āns > *-ūns > *-ūns ~ *-jīns > *-ū ~ *-jīn > OCS *-y ~ -ę*, but there is no reason to separate the hard *o*- and *ā*-stem acc. pl. ending from that of the *u*-stem acc. pl., and the lowering of the high nasal diphthong *īN > *ēN (and loss of nasality in NSl) here but not in the *i*-stem acc. pl. is *ad hoc*.

[32] Pace Matasović (2008: 124–25, 126, 146), raising followed by fronting would have given *-jāns > *-jūns > *-jīns > PSl *-C'ī*, with the same denasalization as in *i*-stem acc. pl. *-i*. For alternative relative chronologies of the relevant sound changes, see among many others Shevelov 1964; Holzer 1980; Kortlandt 1983, 1994; Zucha 1986: 134–35; Lunt 2001: 196, 207–08; and Olander 2015: 46–67.

Slavic, the northern and southern dialects generalized respectively *-ē (> OR, OCz -ě) and *-ę̄ (> OCS -ę).

Although scholars have long assumed generalization of the jā-stem acc. pl. reflex to the nom. pl. and gen. sg. in OCS -ę,[33] the only authors I have found who explicitly state that the NSl dialects must have leveled -ě in the opposite direction are Galabov (1973: 10–11) and Moszyński (1984: 225, 286–87, 2006: 264–65, 339–40), neither of whom refers to the wider IE context.[34] The crucial point is that the divergence between the northern and southern reflexes can be motivated far more easily by reconstructing two separate endings *within* jā-stem inflection for Proto-Slavic: *-ē in the gen. sg. and nom. pl., and *-ę̄ in the acc. pl. The elimination of this contrast in all Slavic dialects is a typical example of grammar simplification through reduction of the number of morphophonologically conditioned alternations: in place of gen. sg./nom. pl. *-ȳ ~ *-ē and acc. pl. *-ȳ ~ *-ę̄ in the hard and soft declensions, respectively, OCS and the rest of South Slavic generalized the unitary alternation -y ~ -ę, while OR, OCz, and other North Slavic dialects instead opted for -y ~ -ě.[35] The reconstruction of PSl *-ę̄ for the jā-stem acc. pl. in turn implies that the PIE ending *-ās was remodeled to *-āns in the prehistory of Slavic, much as in Greek and the Sabellic languages.

4. A Balto-Slavic Date for the Remodeling?

It is possible that the remodeling of the ā-stem accusative plural ending to *-āns took place already in Proto-Balto-Slavic, but the Baltic facts are complex and difficult to interpret. Standard Lith -às could be from either *-ā́s or *-ā́ns with shortening by Leskien's Law, but since -ǫs- in the definite adjective ending -ǫ́s-ias can only continue *-ā́ns, it is natural to assume the same immediate

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[33] For example, Meillet 1934: 398; Tedesco 1951: 173; Mathiassen 1989: 124; Rasmussen 1992 [1999]: 507, fn. 2; Olander 2015: 131–32, 231. See also the references above in fn. 10.

[34] Cf. Igartua 2005a: 234–35 (tentative), citing Galabov; and Schenker 1995: 125, citing Moszyński. Milewski (1932: 7–8) came close in proposing *-āns > *-ās > -y ‖ -'ě in line with a general "phonetic tendency" of PSl, which in the SSl dialects was "sparaliżowany wpływem analogji morfologicznej" ("paralyzed by the influence of morphological analogy", presumably of the o-stem acc. pl. in *-ons) to give *-ans > -y ‖ -'ę; as a result, SSl generalized -ę from the jo- and jā-stem acc. pl. to the jā-stem gen. sg. and nom. pl., while NSl instead extended -ě from the jā-stem gen. sg. and nom./acc. pl. to the jo-stem acc. pl. In contrast to Milewski, I assume remodeling of the ā-stem acc. pl. ending for PSl, if not already PBSl (see below, section 4).

[35] Cf. Ferrell 1971: 90–93, although I cannot follow his explanations for the spread of -ě in the North and -ę in the South. In contrast, the isolated alternation *-ȳ ~ *-ī (< PBSl *-ōis < post-PIE *-ōys; see fn. 8) in the o-stem inst. pl. remained unaffected, until it was lost by sound change and/or analogical remodeling in all Slavic dialects.

source for *-às*, rather than positing coexistence of both variants **-ā́s* and **-ā́ns* in pre-Lithuanian (Fortunatov 1919 [1957]: 170–71; Endzelīns 1948 [1971]: 145, revising 1923: 308). OPr *-ans* in *gennans* 'women', *rānkans* 'hands' also points to a PBSl date for the remodeling.

On the other hand, acc. pl. *-as, -os-ias* are found in eastern Lithuanian dialects and much of the Žemaitian dialect area (Zinkevičius 1980 I: 194). These endings, along with loc. pl. *-os-e* and the archaic illative pl. *-os-na*, require a preform **-ās*, as does Latv *-as*, definite *-ās* (J. Schmidt 1883: 337–38; Brugmann 1890: 674, 675, 1909: 224–25, 226; Hujer 1910: 99; Stang 1966: 200), which would imply that the nasalless ending reconstructed for PIE survived unchanged into PBSl after all, and the remodeling to **-āns* took place independently in Slavic, West Baltic, and parts of Lithuanian;[36] or alternatively, that there was variation in PBSl between **-āns* and **-ās*, which was resolved one way or the other in the daughter languages (Vaillant 1958: 83; Georgiev 1969: 45). However, these forms too may be explained as innovations, for example by analogy to the short ending *-as* on the model of nom. sg. *-a ~ -o-* (Mathiassen 1989: 124); or in the case of Latvian, by analogy to the *i*-stems, where the nom. and acc. pl. endings are identical (Rasmussen 1992 [1999]: 507, fn. 2).

Most recently, Olander (2015: 248) also reconstructs PBSl **-āns*, with "the Baltic forms pointing to a proto-form without a nasal hav[ing] arisen at a relatively late stage, as the result of an East Baltic loss of **n* between a long vowel and a final **s*".[37] The loss would have created allomorphy between the substantives and indefinite (short-form) adjectives on the one hand and the definite (long-form) adjectives on the other, which was retained in standard Lith *-ąs-ias*, but leveled in dialectal *-os-ias* and Latv *-ās*. As for Lith loc. pl. *-os-e* and ill. pl. *-os-na*, they could well have been created after the Proto-East-Baltic stage, with the vowel subsequently remaining unaffected by Leskien's Law. This explanation will also work for *o*-stem acc. pl. PBSl **-ōns > *-ōs*: the suffixed allomorph is reflected in Žemaitian *-úns-ius, -ū́s-ius* and loc. pl. *-uns-è, -ūs-è* (Zinkevičius 1980 I: 211), while the standard form *-úos(-ius)* has lost the nasal in absolute final position, there being no nasal diphthong **[ũõ]* (Mathiassen 1989: 124–25). These developments may be summarized in Table 6 on the following page; analogical forms are in brackets.

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[36] See for example Weiss 2011: 236 and now Jasanoff 2017: 139, fn. 29: "It is minimally clear that some dialects never had **-n-* in the *ā*-stems."

[37] Olander (2009: 183, 2015: 242) sets up a phonetic rule whereby word-final **-ns* caused glottalization of a preceding vowel; see already Streitberg (1894), who proposed a rule lengthening vowels before **-ns* to account for the *o*- and *ā*-stem acc. pl. endings. However, the acute intonation of Lith *-ùs, -úos-* and *-às, -ą́s-* can directly continue the long vowel of the PBSl preforms **-ōns, *-āns* (Kim 2012: 150–51).

Table 6

	PBSl		Proto-East-Baltic		
ā-stem acc. pl.	*-*ā́ns*	>	*-*ā́s* #	>	Lith *-as*, loc. *-os-e*, ill. *-os-na* [dial. *-os(-ias)*]
					Latv *-as* [*-ãs*]
			*-*ā́ns-	>	Lith *-ą́s(-ias)*
o-stem acc. pl.	*-*ő́ns*	>	*-*ő́s* #	>	Lith *-úos(-ius)*, Latv *-us*, *-uõs*
	*-*ő́ns-	>	*-*ő́ns-	>	Lith dial. *-uns(-ius)*, *-ū́s(-ius)*, loc. *-uns-è*, *-ūs-è*

5. Summary

The correspondence NSl *-ě* ~ SSl *-ę* in the *jo*-stem accusative plural and *jā*-stem genitive singular and nominative and accusative plural is best explained by positing a PSl contrast within the soft *jā*-stems between gen. sg., nom. pl. *-ē* and acc. pl. *-ę̄*, which was leveled in different directions as NSl *-ě* and SSl *-ę*. With its nasal vowel, the acc. pl. ending must go back to *-jāns*, thereby demonstrating that the PIE *eh₂*-stem desinence *-eh₂s* > *-ās* was remade to *-āns* after the other declensional classes in the early prehistory of Slavic, as in Greek and Sabellic. The Baltic endings, which on the surface continue both *-ā́s* and *-ā́ns*, are consistent with a PBSl date for this innovation.

   The Slavic *jā*-stem accusative plural thus presents another example of an all too familiar problem in morphological reconstruction: the data from the languages belonging to a particular branch require the reconstruction of a morphological contrast (or alternation) for their common ancestor, here PSl, but the exact distribution of that contrast is simply unrecoverable without reference to data from related branches, in this case of the larger Indo-European family. The solution proposed here raises the possibility that other old cruxes of Slavic historical morphology may similarly find an explanation within an Indo-European context, for example the divergence in the masc./neut. nom. sg. of *e*-present active participles between NSl *-a* and SSl *-y*, or vowel alternations such as OCS, Rus *četyre* vs. Pol *cztery*, Cz *čtyři* 'four' or OCS *tysǫšti*, Cr *tisuća* vs. OCS *tysęšti*, Rus *tysjača*, Pol *tysiąc* 'thousand'.

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