

## XX. Historische Morphologie der slavischen Sprachen

### 115. Introduction to Slavic Historical Morphology: Slavic Noun Classes

1. Historical Developments of Slavic Morphology
2. Nominal Classes Inherited by Slavic from PIE
3. Influence of Phonological Changes on Slavic Nominal Morphology
4. Loss of Paradigms, Categories and Morphological Distinctions
5. Slavic Innovations Involving Declension Class, Gender, and Number
6. Inflection of Other Parts of Speech within the Noun Phrase
7. Conclusion
8. Literature (selected)

#### Abstract

*Proto-Slavic noun classes evolved from a system based on theme vowels placed between stems and desinences. The syllables formed by stem-final consonants and theme vowels were subject to a variety of sound changes that produced consonant alternations and a distinction between “hard” and “soft” paradigms. These changes ultimately obscured the theme vowels as well, and the system of paradigms was reorganized to reflect gender distinctions, which involved merging eight paradigms into five. Adjectives and numerals followed the nominal declensions, but a new “long” adjectival paradigm was created by adding third singular pronoun forms to the original “short” paradigm.*

#### 1. Historical Developments of Slavic Morphology

This article will trace the evolution of Slavic morphology, with special emphasis on the nominal classes. Focus will be on segmental morphophonemics, leaving aside the suprasegmental issues that are treated in Chapter II. Throughout this article, Proto-Slavic (PSI) examples will be cited in italics with an asterisk (e.g., *\*kostis* ‘bone’), Late Common Slavic (LCS) will be cited in italics without an asterisk (e.g., *kostь* ‘bone’), and examples from modern Slavic languages will be cited in italics in the native orthography.

The Slavic languages inherited from Proto-Indo-European (PIE) a morphological system characterized by stems consisting of roots with a CVC structure (with some variations and sometimes prefixed or suffixed, but always ending in a consonant). Synthetic desinences (marking combinations of number, case, person, or tense) were appended at the end of stems. The inflection of these stems was organized in paradigms,

each identified by a theme vowel appearing between the stem and the desinence, which could contain up to three more segments. This system was common to both nouns and verbs, although a small minority of lexical items in both classes had “athematic” paradigms. Thus most PSI word forms had the following shape (where “+” identifies the morpheme boundary between the stem and the desinence, and “...” identifies further segments in the desinence): CVC+V ... The majority of the sound changes that took place between PSI and LCS (essentially coextensive with Old Church Slavonic; for details see Chapter XVIII) “conspired” to make all syllables conform to a single phonotactic strategy, according to which the “ideal” syllable had a CV structure with rising sonority and level tonality (see further details of Slavic historical phonology in Article 153). Rising sonority stipulated that the sonority of successive segments in a syllable must increase. This motivated numerous sound changes, several of which left their mark on inflection: monophthongization of diphthongs, simplification of consonant clusters, and deletion of syllable-final consonants. Level tonality (also known as “syllabic synharmony”) meant that all segments within a given syllable must have similar tonality, where the preference was for low-tonality segments to be raised to match the tonality of high-tonality segments in the same syllable. The resulting first and second velar palatalizations, the j-mutations of consonants, and the raising of vowels all came to play formative roles in Slavic inflection.

The basic conflict between the morphological shape of word forms and the “ideal” phonological shape of syllables was critical to Slavic morphology because the stem-final consonant and the desinence-initial vowel found themselves in the same syllable, where these two morphologically significant segments became vulnerable to each other’s influence. This fact is responsible for both the consonant alternations and the “hard” vs. “soft” paradigm distinctions that are characteristic of the Slavic languages (Townsend/Janda 1996). In both instances, sound changes produced phonemic alternations that were subsequently “morphologized” and now serve crucial distinctive functions in the modern Slavic languages. The range of application of these alternations differs both across word classes and across languages. The first palatalization of velars (I pal) appears in both nominal and verbal inflection, but the second palatalization of velars (II pal) is more prominent in nominal inflection, whereas the j-mutations are most visible in verbal inflection. Unlike most Slavic languages, Russian has largely abandoned consonant alternations among nouns, yet continues most of the consonant alternations it inherited from LCS in its verbal paradigms. Russian has also leveled most differences between “hard” and “soft” paradigms. Czech, on the other hand, has reduced the presence of consonantal alternations in verbs, while preserving them in nouns, and has not only enhanced the “hard” vs. “soft” paradigm division, but even spread this distinction to verbs.

The phonotactics of the “ideal” Common Slavic syllable had other consequences for inflection. If the desinence-initial theme vowel was followed by another vowel or sonorant in the same syllable, monophthongization effectively obliterated the theme-vowel’s presence in many nominal forms. Where a theme vowel followed a high-tonality segment, vowel raising transformed it, again serving to mask the theme vowel. As a result of monophthongization and vowel raising, it was no longer possible to identify nominal paradigms based on theme vowels, motivating a realignment of paradigms. The later contraction of *VjV* sequences in West and South Slavic had a similar effect on verb paradigms, since many verbal stems ended in *-Vj*, followed by a theme vowel

in conjugated forms. As with the nouns, sound changes in verbal forms rendered the original theme vowel no longer accessible, and paradigms were reorganized accordingly. Desinence-final consonants were subject to deletion, often jeopardizing the distinctiveness of desinences. As the LCS period came to a close, the fall of the jers introduced CC vs. CVC alternations that took on morphological significance in both nominal and verbal paradigms.

In addition to changes engendered by phonological factors, many purely morphological phenomena were at work in Slavic. The athematic paradigms, along with other paradigms represented by small numbers of lexical items, were vulnerable to loss or merger. Although these marginal paradigms did not survive, many of their desinences did, and were recycled to new purposes. The 1sg *-m* desinence, used by only five athematic verbs in LCS, enjoyed huge productivity in West and South Slavic, where it became the most common 1sg marker among verbs (Janda 1994). The u-stem nominal declension collapsed toward the end of the LCS period, but in the wake of that event u-stem desinences spread to establish new distinctions in the descendants of o-stem and jo-stem paradigms (cf. section 3.1. below; Townsend/Janda 1996; Janda 1996a, b).

Certain grammatical categories were likewise lost or transformed, and overall this had a greater effect on the verbal system than on the nouns. The PIE perfective, imperative, subjunctive, and middle voice were all lost in Slavic or replaced by innovations, such as the compound conditional or the new imperative built from the original optative. In addition to the inherited aorist, Slavic created an imperfect past tense, a variety of options for forming future tense, and an elaborate system of participles and gerunds. Perhaps the most famous Slavic invention is the perfective vs. imperfective aspectual system, which is typologically rare in its assignment of the marked value to perfective and its application to all verbal forms and tenses (Dahl 1985).

The post-LCS fate of verbal categories is no less dramatic, showing wide variation across the modern Slavic languages. The full range of tenses survives only in parts of South Slavic (Bulgarian, Macedonian, and some of the former Serbo-Croatian), and is in the same area that the infinitive has been lost, most likely through the pressures of the Balkan Sprachbund. At the other end of the spectrum, North Slavic (with the exception of Sorbian) has lost the aorist and imperfect past tenses, but Russian, under the influence of Church Slavonic, has preserved the full system of participles better than any other Slavic language.

Both the verbal and the nominal systems inherited the dual number, albeit with less distinctions than either the singular or the plural, and in most of Slavic (except Sorbian and Slovene) the dual was subsequently lost, leaving behind only relics later endowed with new purposes, such as the Polish *-u* marker on virile numerals, the Russian N(A)pl *-á*, the Serbo-Croatian DILpl *-ima/-ama*, and the Spoken Czech Ipl *-(V)ma* (Janda 1996a, 1999).

Most of the PIE case system arrived intact in PSI, although the Ablative merged with the Genitive (restrictive) to yield: Nominative, Genitive, Dative, Accusative, Vocative, Locative, and Instrumental. Already by PSI some analogical shifts within this system are visible, for example the analogical spread of the original Apl for *ā-* and *jā-* stems to Npl and Gsg, yielding *-y/-e/-ě* for all three in LCS. Later, as the Slavic languages went their separate ways we see shifts that are only partially shared among the Slavs, such as the spread of the original LCS Apl *-y/-e/-ě* to the Npl for o- and jo-stems, the spread of Gsg to Asg (and in some North Slavic Gpl to Apl), and the merger of

DILpl desinences. The first two changes are associated with the rise of new gender distinctions along the virility-animacy scale.

The cases themselves have been subject to loss and reorganization since LCS. The Vocative, the only non-syntactic case, has a fate very different from the others: it has been lost in a rather random patchwork of languages throughout the three Slavic sub-families that have otherwise retained case. The Vocative has been retained both in languages that retain the other cases (such as Czech and Polish) and in languages that have lost all other case distinctions (Macedonian and Bulgarian). Although case is no longer marked on substantives or adjectives in Macedonian and Bulgarian, the pronouns retain some vestiges of case distinctions and are used resumptively in some constructions to indicate case meanings that are marked in noun phrases elsewhere in Slavic.

The most significant Slavic innovations in the nominal system involve the development of “hard” vs. “soft” distinctions alluded to above, alongside later (and continuing) adjustments to the gender system, the rise of a definiteness distinction in Macedonian and Bulgarian, and the creation of paucal or counted forms for use with certain (or all) numerals. These and other changes to Slavic noun classes, along with their phonological and morphological motivations, will be examined in more detail below, concluding with some remarks on the fate of the other constituents of the noun phrase: adjectives, numerals, and pronouns.

## 2. Nominal Classes Inherited by Slavic from PIE

Two theme vowels, *ā* and *o*, differentiated the paradigms for the majority of nouns in PSI. Both of these theme vowels appeared with a preceding *j* in the paradigms of a subset of nouns, yielding a system of four basic paradigms: *ā*-stem, *jā*-stem, *o*-stem, and *jo*-stem. There were three further theme vowels: *i*, *u*, and *ū*. Of these, only the *i*-stem paradigm was associated with a productive group of nouns, and it is the only paradigm of the three that survives today in Slavic. Both the *u*-stem and *ū*-stem paradigms were restricted to small groups of nouns, and both those paradigms were in a compromised position at the close of LCS. In addition to paradigms that featured theme vowels, Slavic had an athematic paradigm in which desinences were affixed directly to stems without any intervening vowel. The athematic paradigm is also known as the “C-stem” (“consonant-stem”) type, and can be further broken down according to the final segment(s) in the stem, including:

- \*-*n*: \**kāmon-s* ‘stone’
- \*-*ter*: \**māter* ‘mother’
- \*-*ent*: \**telent-(s)* ‘calf’
- \*-*men*: \**sēmen-(s)* ‘seed’
- \*-*os/es*: \**kolos* ‘wheel’

Like the *u*-stem and *ū*-stem paradigms, the C-stem paradigm was in a vulnerable position by LCS due to the small number of nouns it represented and the erosion of distinctions between the C-stem, *ū*-stem, and *i*-stem paradigms. Only the \*-*ent* subtype, largely thanks to its association with animal offspring, enjoyed any real productivity, and more relics of this type persist than of the others.

Tab. 115.1: *ā*- and *jā*-stem paradigms

Case and number	<i>ā</i> -stem		<i>jā</i> -stem	
	PSI	LCS	PSI	LCS
Nsg	*-ā	-a	*-jā	-a
Gsg	*-ās	-y	*-jās	-ę/-ě
Dsg	*-āi	-ě	*-jāi	-i
Asg	*-ām	-o	*-jām	-o
Isg	*-ām?	-ojɔ	*-jām?	-ejɔ
Lsg	*-āi	-ě	*-jāi	-i
Vsg	*-a	-o	*-ja	-e
NAdu	*-āi	-ě	*-jāi	-i
GLdu	*-āus	-u	*-jāus	-u
DIdu	*-āmō	-ama	*-jāmō	-ama
Npl	*-ās	-y	*-jās	-ę/-ě
Gpl	*-ām?	-ъ	*-jām?	-ъ
Dpl	*-āmus	-amъ	*-jāmus	-amъ
Apl	*-āns	-y	*-jāns	-ę/-ě
Ipl	*-āmīs	-ami	*-jāmīs	-ami
Lpl	*-āsu	-axъ	*-jāsu	-axъ

Although all eight paradigms were still available in LCS, only five survived beyond that period, and the pattern of mergers was relatively uniform across Slavic. The tables below reflect the pattern of mergers to facilitate comparison and discussion of subsequent changes in sections 2–4. Table 115.1 compares the *ā*- and *jā*-stem paradigms. The u-stem paradigm collapsed, its nouns were absorbed into the o-stem paradigm, and relics of original u-stem morphology were redistributed primarily to o- and jo-stems, so those three paradigms are gathered in Table 115.2. The *ū*-stem and C-stem paradigms were virtually identical (Lunt 1974 refers to them as a single type), and the most common solution in Slavic was to merge both of those paradigms with the i-stem paradigm, with which they also shared many parallels. Table 115.3 presents the i-stem, *ū*-stem, and C-stem paradigms. The tables list both the presumed PSI antecedents (with question marks signaling forms that cannot be firmly established) and the LCS equivalents.

The *ā*- and *jā*-stem paradigms were prototypically associated with feminine nouns. In addition, some nouns referring to male human beings, such as *sluga* ‘servant’ belonged to this paradigm yet were syntactically masculine. At the close of LCS, the *ā*- and *jā*-stem paradigms were still largely parallel, arguably functioning as “hard” vs. “soft” variants of a single paradigm. Note that phonological changes (monophthongizations, vowel raising) and morphological changes (the spread of the original Apl *\*(j)ans* desinence to the Npl and Gsg to yield *-y/-ę/-ě*), led to the LCS system in which the theme vowel *ā* was present only in the Nsg, DIdu, Dpl, Ipl, Lpl, leaving the remaining eleven nominal forms without a tangible theme vowel. On the whole, however, the integrity of the *ā*- and *jā*-stem paradigms is remarkably well preserved in Slavic.

The o- and jo-stem paradigms are associated with masculine and neuter nouns. LCS had only about a dozen u-stem nouns, all masculine and all of which were already showing signs of merger with the o-stem paradigm. Although nearly all of the original u-stem morphology survives somewhere in Slavic, it does so primarily within the rubric

Tab. 115.2: o-stem, jo-stem, and u-stem paradigms

Case and number	o-stem		jo-stem		u-stem	
	PSI	LCS	PSI	LCS	PSI	LCS
Nsg	*-os/*-om	-ъ/-o	*-jos/*-jom	-ъ/-e	*-us	-ъ
Gsg	*-ād	-a	*-jād	-a	*-ous	-u
Dsg	*-ōi?	-u	*-jōi?	-u	*-ouei?	-ovi
Asg	*-om	-ъ/-o	*-jom	-ъ/-e	*-um	-ъ
Isg	*-omi	-o/ъmъ	*-jomi	-ъ/emъ	*-umi	-ъmъ
Lsg	*-oi	-ě	*-joi	-i	*-ōu	-u
Vsg	*-e	-e	*-je	-e/-u	*-ou	-u
NAdu	*-ō	-a/-ě	*-jō	-a/-i	*-ū	-y
GLdu	*-ōus	-u	*-jōus	-u	*-ouous	-ovu
DIdu	*-omō	-oma	*-jomō	-ema	*-umō	-ъma
Npl	*-oi/*-ā	-i/-a	*-joi/*-jā	-i/-a	*-oues	-ove
Gpl	*-ōm?	-ъ	*-jōm?	-ъ	*-ouom	-ovъ
Dpl	*-omus	-omъ	*-jomus	-emъ	*-umus	-ъmъ
Apl	*-ons/*-ā	-y/-a	*-jons/*-jā	-ę/-ě/-a	*-uns	-y
Ipl	*-ōis	-y	*-jōis	-i	*-umis	-ъmi
Lpl	*-oisu	-ěxъ	*-joisu	-ixъ	*-usu	-ъxъ

Tab. 115.3: i-stem, ū-stem, and C-stem paradigms

Case and number	i-stem		ū-stem		C-stem	
	PSI	LCS	PSI	LCS	PSI	LCS
Nsg	*-is	-ъ	*-i-#	-y	*-#/-s?	-y/-o/-i/-ę
Gsg	*-eis	-i	*-i-es	-ъve	*-es	-e
Dsg	*-ei?	-i	*-i-ei	-ъvi	*-ei	-i
Asg	*-im	-ъ	*-i-m	-ъvъ	*-m/-#	-ъ/-o/-ę
Isg	*-imi?	-ъmъ/-ъjǫ	*-i-mi/?	-ъvъjǫ	*-mi?	-ъmъ/-ъjǫ
Lsg	*-ēi	-i	*-i-i	-ъve/i	*-i	-e
Vsg	*-ei	-i	*-i-#	-y	*-#/-s?	-y/-o/-i/-ę
NAdu	*-ī	-i	*-i-e/-i	-ъvi	*-e/*-i	-i/-ě
GLdu	*-eios?	-ъju	*-i-ous	-ъvu	*-ous	-u
DIdu	*-imō	-ъma	*-i-mō	-ъvъma	*-mō	-ъma
Npl	*-eies	-ъje/-i	*-i-es	-ъvi	*-es	-e/-i/-a
Gpl	*-eiom	-ъjъ	*-i-om	-ъvъ	*-om	-ъ
Dpl	*-imus	-ъmъ	*-i-mus	-ъvъmъ	*-mus	-ъmъ
Apl	*-ins	-i	*-i-ns	-ъvi	*-ns	-i/-a
Ipl	*-imis	-ъmi	*-i-mis	-ъvъmi	*-mis	-ъmi/-y
Lpl	*-isu	-ъxъ	*-i-su	-ъvъxъ	*-su	-ъxъ

of the o-stem paradigm and its descendants. Phonological changes in the PSI > LCS period had an even more devastating effect on theme vowels among the o- and jo-stems: the presence of o is spotty and limited to NAsg, Isg, DIdu, Dpl in the o-stem, while no theme vowel survives in the jo-stem at all. Within the two paradigms a distinction between masculine and neuter arises, yielding LCS masculine NAsg -ъ/b, NApl -i vs. neuter Nasg -o/e, NApl -a. The mechanism of this innovation is unclear (but see

Schmalstieg 1983, 71–2 and Feinberg 1978). Already in LCS the Gsg *-a* desinence began to spread to mark (virility and later) animacy, and indeed throughout the intervening 1200 years Slavic languages have continued to build new distinctions along the animacy hierarchy among masculine nouns. Like *ā-* and *jā-* stem paradigms, the *o-* and *jo-* stem paradigms show a strong “hard” vs. “soft” parallelism.

Nouns with the *ū-* stem paradigm were exclusively feminine, nouns with the *i-* stem paradigm were nearly exclusively feminine (with a few masculine exceptions like *losb* ‘elk’), but the *C-* stem nouns were primarily neuter, with a few masculines (*kamy* ‘stone’, *dnb* ‘day’), and just two feminines (*mati* ‘mother’ and *dṅkti* ‘daughter’). The stem-final *C* was absorbed by monophthongizations that produced the NAsg *-y/ĕ* desinences in the *C-* stem paradigm. In the *ū-* stem paradigm stem-final *\*-ū* yielded *-y* through a regular sound change in the Nsg (where there was a zero desinence), but *\*-ū* was resyllabified as *-ṅv-* before other desinences (which all yielded vowels) and identified as part of the stem. Aside from the presence of this *-ṅv-* sequence, the *ū-* stem and *C-* stem paradigms are identical by LCS, and are very similar to the *i-* stem paradigm. Whereas the LCS *ū-* stem and *C-* stem paradigms lack theme vowels, even in LCS one could argue that the *i-* stem, alone in the entire nominal system, had managed to retain its theme vowel, present in all forms in a long (*i*) or short (*b*) variant. As we will see below in section 4, most nouns from all three paradigms were ultimately identified as *i-* stem feminines in Slavic, which is the most stable declension type to this day.

### 3. Influence of Phonological Changes on Slavic Nominal Morphology

This section will examine the phonological changes that took place in the PSI > LCS period. These phonological changes were formative in the development of Slavic nominal inflection, for they reshaped the desinences themselves and also produced morphophonemic alternations that now serve distinctive roles in the declension of nouns. Theme vowels were absorbed in most positions, thus losing their saliency as paradigm markers (section 2.1.). A variety of sound changes further compromised the distinctiveness of the desinences themselves (2.2.). The morphophonemic alternations that develop as a result of phonological change (2.3.) involve stem-final consonants (2.3.1.), stem vowels (2.3.2.), and desinence-initial vowels (2.3.3.), and the tendency to morphologize the results of sound changes persists long after LCS, producing alternations specific to the various modern Slavic languages.

#### 3.1. Absorption of theme vowels within desinences

The importance of this event cannot be underestimated, since the loss of the theme vowels as the original identifiers of paradigms motivated the later reorganization of the Slavic nominal classes, producing mergers and realignment of paradigms and gender. The main culprit in the effacement of theme vowels was monophthongization of diphthongs. If we start with the *ā-* stem paradigm, for example, we see that *\*-āi* was monophthongized to *-ě* in the DLsg and NAdū desinences, *\*-āu* was transformed to *-u*

in the GLdu, *\*-ām* was rendered *-o* in the Asg (and probably Isg), while *\*-āns* yielded *-y* in the Apl, which also spread to the Npl and Gsg. Thus the majority of *ā*-stem desinences (9 of 16) lost any distinguishable theme vowel, and a similar story can be told for all other thematic paradigms.

### 3.2. Other transformations of desinences through sound changes

The earliest Slavic sound change, the famous “ruki” rule (*\*s > \*x* after *\*i, \*u, \*r, \*k*) took place in a morphologically significant place, namely in the Lpl desinence for o-stems, i-stems, u-stems and athematic stems, and the new phoneme *\*x* subsequently spread to all paradigms as a universal marker of the Lpl. Rising sonority occasioned the loss of all word-final non-sonorant consonants, which meant that desinences ending in a consonant lost that segment, and subsequently all desinences ended in a vowel. In some instances this meant that desinences became homophonous, for example in the i-stem paradigm the Nsg *\*-is* fell together with the Asg *\*-im* to yield a shared ending *-b*. At the end of the LCS era, the fall of the jers made sweeping changes to the system of desinences, since over 40% of LCS desinences contained jers, most of them in weak position. After the fall of the jers, desinences could end in either a vowel or a consonant, or could have no phonological substance at all. Desinences became overall shorter, marking the Ipl for *ā*- and *jā*-stems as unusual for its disyllabic *-ami* desinence (alongside some DIdu forms). The Gpl was singled out by its zero desinence in the *ā*-stem, *jā*-stem, o-stem, and jo-stem paradigms.

Overall, monophthongizations and erosion first of final consonants and then of final (and other weak) short vowels significantly reduced the desinences, removing any transparent association with theme vowels and decreasing their phonological complexity.

### 3.3. Rise of morphophonemic alternations

While sound changes reduced both the substance and distinctiveness of desinences, they also produced new alternations that were recruited to distinctive purposes in the nominal system of Slavic. New alternations arose among stem-final consonants and stem vowels, as well as among desinence-initial vowels. These new alternations served to buttress distinctions both within and between paradigms, and in many cases the strategy of developing such distinctions continues well beyond LCS, and even up to the present day.

#### 3.3.1. Alternations in stem-final consonants

The phonotactic strategy of level tonality placed stem-final velars (the lowest tonality consonants) in a vulnerable position when they met with a high tonality desinence-initial vowel. In these positions, the velars were subject to either the first or the second palatalization of velars, yielding palatal fricatives and affricates. The high frequency of

velars in stem-final position, both as root-final and particularly suffix-final consonants (enhanced by \**k*'s role in agentive and diminutive suffixes) made the results of the velar palatalizations quite salient in nominal inflection. The first palatalization of velars was occasioned in the Vsg o-stem forms, where *k* ~ *č*, *g* ~ *ž*, *x* ~ *š*, and *c* (originally *k* subjected to the third palatalization) ~ *č*, providing the following Nsg/Vsg contrasts: *prorokъ/proroče* 'prophet', *bogъ/bože* 'god', *duxъ/duše* 'spirit', *otъcъ/otъče* 'father'. More significant was the second palatalization which was facilitated by monophthongization of oral diphthongs, thus motivating new alternations precisely in places where theme vowels were effaced. The results of the second palatalization are not entirely uniform across Slavic: *k* > *c* everywhere, *g* > *z* in most languages (but *dz* in Polish), and *x* > *s* in East and South Slavic, but *š* in West Slavic (with the exception of Slovak, which has *s* in the Npl of virile nouns, as in *mnisi* 'monks', cf. Nsg *mnich*). The second palatalization was at work in many nominal desinences, among them: Dsg, Lsg, NAdu of *ā*-stems; and Lsg, NAdu (for neuter nouns), Npl, Lpl of o-stems. Table 115.4 lists some examples of the resulting alternations (where *dž* and *ś* symbolize the LCS reflexes of the second palatalization of *g* and *x*).

Tab. 115.4: II palatalization reflexes in nominal forms

Gloss	Nsg (with original velar)	Other forms (showing II palatalization)
'hand'	<i>rъka</i> ( <i>ā</i> -stem)	Dsg, Lsg, NAdu <i>rъčě</i>
'leg'	<i>noga</i> ( <i>ā</i> -stem)	Dsg, Lsg, NAdu <i>nodžě</i>
'roof'	<i>strěxa</i> ( <i>ā</i> -stem)	Dsg, Lsg, NAdu <i>strěšě</i>
'prophet'	<i>prorokъ</i> (o-stem)	Lsg <i>prorocě</i> Npl <i>proroci</i> Lpl <i>prorocěxъ</i>
'god'	<i>bogъ</i> (o-stem)	Lsg <i>bodžě</i> Npl <i>bodži</i> Lpl <i>bodžěxъ</i>
'spirit'	<i>duxъ</i> (o-stem)	Lsg <i>dušě</i> Npl <i>duši</i> Lpl <i>dušěxъ</i>

The stem-final alternations phonologically conditioned by the two Slavic palatalizations played an important role in the patterning of morphological paradigms. Russian has leveled out all of these alternations, yielding forms with the original (though palatalized) velar, such as *ruke* (DLsg) 'hand', *noge* (DLsg) 'leg'. In Czech these alternations are largely retained; the Npl alternation is now used to mark animates, as in *proroci* (Npl) 'prophets' as opposed to inanimates, as in *potoky* (NApl) 'streams' has, although some animate nouns have succumbed to analogical forces, such as *bůh* (Nsg), *bohové* (Npl). Polish behaves much like Czech, but uses the Npl alternation to mark virility instead of animacy, so a non-virile animate *ptak* (Nsg) 'bird' has the plural *ptaki* (Npl), in contrast to the Czech *pták* (Nsg), *ptáci* (Npl). Serbo-Croatian retains the Npl alternation, which has also been spread to the DILpl, yielding *učenici* (Npl) and *učenici-ima* (DILpl), as opposed to *učenik* (Nsg) 'pupil'. Although Bulgarian has lost the case endings, the Npl alternation survives, as we see in *učenik* (sg) vs. *učenica* (pl) 'pupil'.

## 3.3.2. Alternations in stem vowels

As Slavic unity was disintegrating, the fall of the jers occasioned further stem alternations, providing new opportunities for distinctions in paradigms. For  $\bar{a}$ -stem and neuter o-stem paradigms this meant that the Gpl was singled out as the only form with a vowel in the stem as opposed to all others, as in modern Russian *ručka* (Nsg), *ruček* (Gpl) ‘handle; pen’, *sto* (Nsg), *sot* (Gpl) ‘hundred’, cf. Czech *ručka* (Nsg), *ruček* (Gpl) ‘small hand’, *sto* (Nsg), *set* (Gpl) ‘hundred’. In the masculine o-stems, this opposition initially distinguished the Nsg, Asg (the two direct cases in the singular) and Gpl from all other forms, however subsequently this distinction has been readjusted or augmented by analogical processes; cf. Russian *pes* (Nsg) ‘dog’, which would also be the Asg if it had not been replaced by the animate Gsg *psa*, and which would also have been the Gpl if it had not been augmented by the u-stem ending to yield *psov*. The Slavic languages vary in how well they tolerated the vowel-zero alternations in stems. In very short stems these alternations were sometimes eliminated, as we see in Czech which has eliminated the alternation of the LCS *mъxъ* (Nsg) vs. *mъxa* (Gsg) ‘moss’ to yield *mech* vs. *mechu*, whereas Russian has retained it as *mox* vs. *mxax*. Compare also Serbo-Croatian *dan* (Nsg) vs. *dani* (Npl) ‘day, to both Czech *den* vs. *dny* and Russian *den*’ vs. *dni*. By contrast, Czech is more tolerant of multiple vowel-zero alternations in stems; cf. Russian *švec* (Nsg), *šveca* (Gsg) ‘cobbler’ where the alternation has been leveled out, as opposed to Czech *švec* (Nsg), *ševce* (Gsg) where it has been retained.  $\varnothing$

## 3.3.3. Alternations in desinence-initial vowels

As we see in the Tables in section 1., vowel raising due to syllabic synharmony has produced by LCS a series of fairly systematic relationships between the “hard” endings in the  $\bar{a}$ -stem and o-stem paradigms, and their “soft” counterparts in the  $\bar{j}\bar{a}$ -stem and jo-stem paradigms. In most instances the desinence-initial *j* has caused the following low-tonality vowel to be raised and subsequent consonant-cluster simplification and/or *j*-mutation has removed the original *j*, making the phonemic alternation opaque. In the end, it is the “hard” vs. “soft” desinence vowels that carry the burden of distinguishing  $\bar{a}$ -stem vs.  $\bar{j}\bar{a}$ -stem and o-stem vs. jo-stem. Table 115.5 lists the “hard” vs. “soft” correspondences that were predictable in LCS.

Given the robustness of this distribution, it is clear that although the desinence-initial *j* was lost, and indeed the distinction between the  $\bar{a}$ - vs.  $\bar{j}\bar{a}$ - and o- vs. jo-stems was compromised, its legacy lived on in the “hard” vs. “soft” distinctions that arose in large portions of the paradigms. After the LCS period, the various Slavic languages took different paths by either strengthening or weakening these correspondences. Czech “*přehláska*” continued the strategy of synharmony, producing further “hard” vs. “soft” relationships by adding further correspondences such as “hard” *u* and *a* as opposed to “soft” *i* and *ě*, as we see in the Asg and Nsg forms *ženu* vs. *duši* and *žena* vs. *duše*. Serbo-Croatian retains some of these distinctions, as we see in the Isg *dimom* vs. *konjem* and some Npl forms, such as *rodovi* ‘clans’ vs. *noževi* ‘knives’. Bulgarian, despite its lack of cases, shows traces of such correspondences in plural forms such as *rodove* ‘clans’ vs. *boeve* ‘struggles’. Russian, however, has basically merged the “hard” and “soft” paradigm types by generalizing the “hard” endings.

Tab. 115.5: “hard” vs. “soft” alternations illustrated with forms of *žena* ‘woman’, *duša* ‘soul’, *dymъ* ‘smoke’, *konjъ* ‘horse’, *město* ‘place’, *polje* ‘field’

“hard” vowel	“soft” vowel	Morphological form	Examples
ъ	ь	ā- vs. jā- Gpl o- vs. jo- NAsg/Gpl o- vs. jo- Isg (WSl & ESl)	<i>ženъ</i> vs. <i>dušъ</i> <i>dymъ</i> vs. <i>konjъ</i> <i>dymътъ</i> vs. <i>konjътъ</i>
o	e	ā- vs. jā- Vsg ā- vs. jā- Isg o- vs. jo- NAsg o- vs. jo- Isg (SSl) o- vs. jo- DIdu o- vs. jo- Dpl	<i>ženo</i> vs. <i>duše</i> <i>ženojъ</i> vs. <i>dušejъ</i> <i>město</i> vs. <i>polje</i> <i>dymotъ</i> vs. <i>konjemetъ</i> <i>dymota</i> vs. <i>konjeta</i> <i>dymotъ</i> vs. <i>konjetъ</i>
y	i	o- vs. jo- Ipl	<i>dymy</i> vs. <i>konji</i>
y	ę/ě	ā- vs. jā- Apl (Npl, Gsg)	<i>ženy</i> vs. <i>dušę/ě</i>
ě	i	ā- vs. jā- Lsg o- vs. jo- Lsg o- vs. jo- Lpl	<i>ženě</i> vs. <i>duši</i> <i>dymě</i> vs. <i>konji</i> <i>dyměxъ</i> vs. <i>konjixъ</i>

### 3.3.4. Expansion of morphophonemic alternations after LCS

The trend toward developing morphophonemic alternations that came to supplant distinctions in paradigms continued, with varying results in the Slavic languages, and only a few of these will be mentioned here. The Bulgarian reflexes of LCS *ě* distinguish a stressed position (before a hard consonant) that yielded *ja* as opposed to *e* elsewhere, and this shows up as a further marker of singular vs. plural or definite, as in *svjat* (sg) vs. *svetove* (pl) and *sveta* (definite) ‘world’. Polish experienced a similar *ě* > *a* shift before hard dentals which shows up as a morphophonemic alternation in nouns such as *obiad* (Nsg) vs. *obiedzie* (Lsg) ‘dinner’. Polish and Czech both underwent a reinterpretation of length as qualitative vowel distinctions that showed up in paradigms as well, as we see in Polish *dwór* (Nsg) vs. *dvoru* (Gsg) ‘courtyard’, *rząd* (Nsg) vs. *rzędu* (Gsg) ‘row’, and Czech *dvůr* (Nsg) vs. *dvoru* (Gsg) ‘courtyard’ and *sněh* (Nsg) vs. *sněhu* (Gsg) ‘snow’.

## 4. Loss of Paradigms, Categories and Morphological Distinctions

By the time of LCS, three of the eight paradigm types, the u-stem, ū-stem, and C-stem types, were in a vulnerable position. The dual number, with only three conflated case forms in for each paradigm, was significantly less robust than the other two numbers. Most Slavic languages experienced some loss of case in their histories, and analogical processes have shifted some endings around as well. All of these topics will be treated briefly below.

#### 4.1. Loss of paradigms and recycling of endings

Although the u-stem, ū-stem, and C-stem paradigms ceased to exist in the sense that they no longer functioned as morphological types in Slavic, neither the nouns nor the desinences that belonged to these patterns were entirely lost; for the most part they were reclassified or reconceptualized. The nouns joined one of the more viable paradigms, and this shift was usually motivated by a combination of semantic, morphological, and phonological affinities. As we shall see in section 4., nouns tended to migrate to the paradigms that best matched their gender type and/or their array of desinences. The move from a moribund paradigm to a productive one was a gradual process, and nouns often brought some morphological “baggage” along with them. Desinences from the “old” paradigm could tag along as alternative endings for the immigrant noun in its “new” paradigm. In many instances the “old” desinences that were imported along with their nouns were adopted and became productive in the “new” paradigms, often serving new distinctive purposes. The best example of this process is the u-stem paradigm. Nearly all of the u-stem desinences that were distinct from their o-stem counterparts survive somewhere among the Slavic languages (Janda 1996a & b). The majority of former u-stem desinences have found their new homes within the modern continuations of the o-stem and jo-stem paradigms, although in some instances they have spread to virile nouns in the ā-stem and jā-stem paradigms as well. The u-stem Lsg *-u*, for example, survives in all Slavic languages with case morphology, and tends to mark mass nouns and other items on the low end of the animacy hierarchy. The Gsg *-u*, present in all the North (East and West) Slavic languages, is also associated with inanimates. Continuations of u-stem Dsg *-ovi* mark animates in Polish, Czech, Slovak and Ukrainian, and have been extended to the Lsg as well in the latter three languages. Vsg *-u* can be found in all Slavic languages that retain the vocative. The Npl *-ove* has productive descendants in all West and South Slavic languages. Aside from Serbo-Croatian, all languages with case have adopted the u-stem Gpl *-ovъ*. The Dpl, Ipl, and Lpl u-stem desinences are all evident in Slovak, and the latter survives in Czech as well. Contributions to surviving paradigms from the ū-stem and C-stem types are more haphazard: in Czech, for example, the C-stem Npl *-e* (for masculines) has become productive as an animacy/virility marker, and there is some continuation of other original C-stem endings in all Slavic languages with case.

#### 4.2. Loss of dual

The dual number persists only in Sorbian and Slovene; elsewhere in Slavic it has ceased to exist as a grammatical category. Like the desinences from the “lost” paradigms, the former dual morphology did not completely disappear, but was redeployed for new purposes. In languages where the dual category was lost, but dual morphology became productive, the “extra” morphology was usually used to signal special distinctions within the plural. Obvious examples include: 1) the productive Russian masculine N(A)pl in *-á* (from the o-stem NAdu *-a*) which is used with stems that reflect reflexes of original liquid diphthongs (TORT and T̄BRT types, such as Russian Npl *berega* ‘river-banks’ and *verxa* ‘summits’) or close approximations to them (Janda 2000a), 2)

the universalization of DIdu *-Vma* desinences as DILpl *-ima/-ama* in Serbo-Croatian, and 3) the more limited universalization of *-(V)ma* as the only Ipl desinence in Colloquial Czech. Strange as it may seem, the dual number played an important role in the development of a new gender in Slavic, the virile (Janda 1996a & 2000b). Formerly dual morphology served as a midwife to the development of the virile/animate GApl and of virile numerals in West and South Slavic, and both of these developments will be discussed in section 4.1. Other vestiges of the dual can be found in the new paucal and counted plural forms of East and South Slavic, which we will turn to in 4.2.

### 4.3. Loss of case

As mentioned above, the fate of the Vocative case differs significantly from that of the other cases, possibly betraying its very different (pragmatic rather than syntactic) nature. The Vocative survives best in Bulgarian, Macedonian, Serbo-Croatian, Czech and Upper Sorbian. In both Polish and Ukrainian Vocative forms are available, but are often replaced by Nominative forms. The Vocative has been lost from Slovene, Slovak, Lower Sorbian, Russian and Belorussian. In the languages where the Vocative has been “lost”, there are frequently remnants or relevant developments. In Slovak, for example, many names (often diminutive) of the virile  $\bar{a}$ -stem type have their Nominative singular form in *-o*; evidently the Vocative ending has replaced the Nominative, as in *Janko* ‘Johnny’. Colloquial Russian has innovated a new Vocative form primarily for  $\bar{a}$ -stem names and kinship terms, as in *Dim!* (cf. Nominative *Dima*, diminutive of the name *Dimitrij*).

As far as the six syntactic cases are concerned, we see a neat distribution. Either they have all been lost, as in Macedonian and Bulgarian (with the exception of some case distinctions restricted to pronouns), or they have all survived, as in all other Slavic languages. In the languages where the syntactic cases survive, they are most clearly distinguished in the singular. In the plural, two trends have emerged. One tendency is for gender/paradigm distinctions to be lost, meaning that case endings are syncretic across paradigms, as we see in the oblique endings of Polish (with Dpl *-om*, Ipl *-ami*, Lpl *-ax* for nearly all nouns) and Russian (with a similar distribution of *-am*, *-ami*, *-ax*). The other tendency is for syncretism among the oblique plural endings to efface case distinctions, as we see in Serbo-Croatian, where there is never a distinction between Dpl, Ipl and Lpl (all appear as either *-ami* or *-imi*, depending upon paradigm). There are also languages that participate in neither trend, such as Czech (although Colloquial Czech has leveled the Ipl across all paradigms as *-(V)ma*).

### 4.4. Analogical changes in declensional endings

The analogical spread of the  $\bar{a}$ -stem Apl *\*(j)ans* desinence to the Npl and Gsg to yield *-y/-e/-ě* (mentioned above in section 1.) is the most significant analogical shift; indeed, all modern Slavic languages with case inflection have syncretic endings for NApl/Gsg for  $\bar{a}$ -stem nouns. Pronouns seem to be the source of the (j) $\bar{a}$ -stem Isg *-ojo/-ejō*, which subsequently spread to the i-stems as *-bjo*. The largest influence on a given paradigm

comes from the *i*-stems, which contributed six desinences to the athematic *ū*-stem and *C*-stem paradigms: the Isg *-ьmb/-ьjǫ*, NAdu *-i*, DIdu *-ьma*, Dpl *-ьmь*, and the Ipl *-ьmi*. In the *o*-stem paradigm both the Npl *-i* and Lpl *-ěxь* originate in pronominal paradigms, and the existence of phonologically motivated “ruki” *\*s > \*x* (see section 2.2.) in all other Lpl forms motivated the analogical spread of *x* to the (j)*ā*-stem paradigm as well. Since the dissolution of Slavic unity many more analogical changes have taken place, with varying results in the modern languages, and many of these have contributed to the relationship between declension types and gender and to the rise of animacy distinctions, as described in section 4.

## 5. Slavic Innovations Involving Declension Class, Gender, and Number

The history of the Slavic languages reflects significant reorganization of the declension classes, which have been aligned to correspond to grammatical gender. The original eight thematic and athematic declensions already showed some correspondence between declension type and gender in the Proto-Slavic era, and since then many of the smaller inconsistencies have been tidied up to yield a fairly coherent system. The fates of some individual words vary across Slavic; for example, the LCS *i*-stem masculine *putь* ‘path, journey’ is retained as an isolated relic of its type in Russian *put’*, but in Serbo-Croatian has entirely assimilated as the masculine *o*-stem *pūt*, whereas in Czech this noun has become the feminine *pout’* *i*-stem ‘pilgrimage’. However, the overall picture is fairly uniform. The nouns that were most affected by these changes were of two types: a) nouns that belonged to paradigms that became defunct (*u*-stem, *ū*-stem, and *C*-stem paradigms) and had to move to a “successor” paradigm, and b) nouns whose gender was in conflict with the prototypical gender of the paradigm they were in. Discussion of the migrations and adjustments that took place will be organized according to Tables 1–3 in section 1. Two other important developments are the rise of paucal and counted plural forms, which will be taken up in section 5.2., and the innovation of definiteness (primarily in Macedonian and Bulgarian), which is the topic of Article 159.

### 5.1. Gender of nouns in the *ā*- and *jā*-stem paradigms

The *ā*-/*jā*- type has collapsed into a single type (with “hard” vs. “soft” variants) in most of Slavic (except perhaps Czech, where the differences between the two variants remain significant; these facts also hold, *mutatis mutandum*, for the *o*-/*jo*- paradigm). This paradigm is associated with both feminine and masculine nouns, and has seen very little in the way of out- or in-migration (with rare exceptions such as Russian *tykva* ‘pumpkin’, the modern reflex of the LCS *ū*-stem feminine *tyky*). The major issue for this paradigm stems from the fact that the vast majority of its nouns are feminine, which has put pressure on the masculine nouns (all of which are virile). As a result,

masculine  $\bar{a}$ -/ $\bar{j}\bar{a}$ -stem nouns have begun to adopt more prototypically “masculine” morphology in some of the Slavic languages. In Czech and Slovak, the entire plural paradigm for  $\bar{a}$ -/ $\bar{j}\bar{a}$ - masculine nouns follows the o-/jo-stem, and this is true for parts of the singular declension as well (the DLsg in Czech, and the entire paradigm except for the Nsg and Asg in Slovak). Polish uses the virile Npl *-owe* (characteristic of the o-/jo-stem paradigm) with the masculine nouns in this paradigm, and Belarusian shows variation between  $\bar{a}$ -stem and o-stem endings in the DLsg and Isg forms of such nouns.

Animacy surfaces only in the plural and only in the use of GApl syncretism in East Slavic (cf. Russian and Ukrainian GApl *sester* ‘sisters’).

### 5.2. Gender of nouns in the o-stem, jo-stem, and u-stem paradigms

All nouns in the u-stem paradigm were masculine, whereas nouns in the o-/jo-stem paradigm were both masculine and neuter. The main events for these nouns were: a) the loss of the u-stem paradigm and resultant migration of all u-stem nouns to the o-/jo-stem paradigm; b) the migration of i-stem and C-stem masculine nouns to the o-/jo-stem paradigm; and c) the morphological differentiation of masculine and neuter in the NAsg and NApl within the o-/jo-stem paradigm. The in-migration of masculine nouns from other paradigms can be illustrated by the following examples:

Original u-stem *domъ* ‘house’ joined the o-/jo-stem paradigm, cf. Russian *dom*

Original i-stem *losъ* ‘elk’ joined the o-/jo-stem paradigm, cf. Russian *los’*

Original C-stem *kamy* ‘stone’ joined the o-/jo-stem paradigm, cf. Russian *kamen’*

Although the differentiation between masculine and neuter is incomplete and limited to Nominative and Accusative case forms, it must have happened very early in the Slavic era, because its results are uniform throughout the Slavic languages.

Animacy and virility distinctions have been developing among o-/jo-stem masculine nouns throughout the Slavic era (some are arguably still underway), and are discussed in more detail in Article 158 (cf. also Janda 1996b). Among neuters, animacy shows the same restrictions as those that pertain to  $\bar{a}$ -/ $\bar{j}\bar{a}$ -stem feminine nouns and is considerably more marginal.

### 5.3. Gender of nouns in the i-stem, $\bar{u}$ -stem, and C-stem paradigms

The i-stem paradigm, once associated with both feminine and masculine nouns, has gone from being predominantly feminine to nearly exclusively feminine. As mentioned above, masculine nouns that were originally in this paradigm have either migrated to the o-/jo-stem type (cf. Russian *los’* ‘elk’) or changed their gender and become feminine nouns (cf. Czech *pout’* ‘pilgrimage’). The i-stem paradigm has also absorbed feminine nouns from both the  $\bar{u}$ -stem (exclusively feminine to begin with) and C-stem paradigms, as illustrated by these examples:

Original  $\bar{u}$ -stem *ljuby* ‘love’ joined the *i*-stem paradigm, cf. Russian *ljubov’*  
 Original C-stem *mati* ‘mother’ joined the *i*-stem paradigm, cf. Russian *mat’*

For the  $\bar{u}$ -stem nouns, this transfer was complete (with rare exceptions). The C-stem paradigm, however, was associated with nouns of all three genders, and all of them had to be re-absorbed by other paradigms when the C-stem paradigm ceased to exist. In addition to the feminine nouns (like *mati* ‘mother’) and masculine nouns (cf. *kamy* ‘stone’ mentioned in 4.2.), there were neuter nouns that belonged to this paradigm. Of all paradigm types inherited by Slavic, the neuter C-stems have been the most recalcitrant and have resisted full assimilation into the patterns of gender-paradigm alignment described in this section. Although some neuter C-stem nouns have been fully regularized (cf. Czech and Serbo-Croatian *kolo* ‘wheel’), in most instances there is either some irregularity or some other trace of the original C-stem paradigm. It is hard to give any meaningful generalizations because the patterning across languages and lexical items varies greatly. Russian *koleso* ‘wheel’ has integrated the original consonant into the whole paradigm, whereas *čudo* ‘miracle’ has the consonant in the plural stem *čudesá* (cf. Serbo-Croatian with a similar plural stem as an alternative). Russian *imja* ‘name’ has its own declension type which retains both the consonant and many of the original endings, as we see also in the corresponding Polish *imię*. Although the C-stem nouns in *-nt* referring to young animals have been replaced by regular masculine diminutives in Russian (cf. *telenok* ‘calf’), this type is distinct and productive in many Slavic languages (cf. Czech and Serbo-Croatian *tele*, Polish *cielę* ‘calf’).

## 6. Inflection of other Parts of Speech within the Noun Phrase

The various other elements that appear in noun phrases (adjectives, numerals, and pronouns) have been influenced both by the nominal declensions and by each other, and each is discussed briefly below. Considerations of space preclude inclusion of full paradigms and the discussion highlights only the most important generalizations.

### 6.1. Adjectives

Slavic innovated a distinct adjectival declension by attaching appropriate forms of the third singular demonstrative pronoun *jb* to nominal forms to create “long” (and definite) compound adjectives, according to the following model for the adjective meaning ‘new’: Nsg masc *novb + jb*, Nsg fem *nova + ja*, Nsg neu *novo + je*, Gsg masc *nova + jego*, etc. The fates of the original “short” adjectives and the “long” innovative forms differed across the Slavic territory: in Bulgarian “short” adjectives have been generalized; in Serbo-Croatian the two types of adjectives are opposed as indefinite vs. definite; in Czech, Polish, and Russian the “short” adjectives appear in very limited contexts and “long” forms predominate. In West and South Slavic the *VjV* sequences present in the “long” forms have contracted, yielding long vowels (in some languages later shortened), as we see in the Czech equivalents of the LCS forms cited above: *nový, nová, nové, nového*.

## 6.2. Numerals

In LCS the numerals were a disparate category: *edinъ/edьnъ* ‘1’ was a pronoun (distinguishing all three genders), *dъva(masc)/dъvѣ(fem/neu)* ‘2’ had nominal dual morphology, *trъje* ‘3’ followed the i-stem plural paradigm, *četyre* ‘4’ followed the C-stem plural paradigm, and all four items behaved syntactically as adjectives.

*Dъva(masc)/dъvѣ(fem/neu)* ‘2’ is notable for its morphological and syntactic influence on *trъje* ‘3’ and *četyre* ‘4’, which assimilated oblique dual forms. Syncretism of forms among both the numerals for ‘2’, ‘3’, ‘4’ and nouns that accompanied them have led to the development of paucal or counted plural forms in some Slavic languages, as evidenced by the following forms for ‘two cities’: Serbo-Croatian *dva grada* (a paucal form), Bulgarian *dva grada* (a counted plural), Russian *dva goroda* (reanalyzed as a Gsg). The dual has also played a role in the development of many of the virile numerals used for counting male humans or mixed groups including male humans. Virile numerals are found in all Slavic languages except Czech and Russian (Janda 1999).

The numerals ‘5–9’ *petъ, šestъ, sedmъ, osmъ, devetъ* were i-stem feminine singular nouns, and *desetъ* ‘10’ is a hybrid between this group and the C-stems. Numbers between ‘10’ and the neuter noun *stoto* ‘hundred’ were formed periphrastically.

## 6.3. Pronouns

In addition to the pronoun *jb*, LCS had the demonstrative pronouns *tъ, onъ, ovъ* (all with deictic meanings approximating ‘this/that’), *takъjb* ‘such’ and *sb* ‘this’. The latter has been severely reduced, represented only in frozen forms such as the following reflexes of *dъnъ sb* ‘this day/today’: Russian (*do*)*dnes*’, Polish *dziś*, Czech *dnes*, Serbo-Croatian *danas*, Bulgarian *dnes*. Reflexes of *ovъ* are most evident in Serbo-Croatian *ovaj* ‘this’. In most Slavic languages the Nominative forms of *onъ* have teamed up with the other forms of *jb* to yield full paradigms for third person personal pronouns (with the exception of Bulgarian which created its third person pronouns from a similar collaboration of *tъ* and *jb*). The non-Nominative forms of these pronouns frequently appeared after prepositions with the shape *Cъn*, which meant that the initial *j-* was lost in a *j*-mutation of the *-n*, the whole combination (which was a single phonological word) was syllabified according to the Slavic CV pattern, and as a result the *ń* was reanalyzed as the initial segment of the pronoun (after prepositions in most languages, but as the default in South Slavic). To illustrate, *съn jimъ* ‘with him’ yields reflexes like Russian *s nim*, Czech *s ním*, and Serbo-Croatian *s njim*. The Gsg, Dsg and Lsg forms of the personal pronoun have been differentiated into “long” and “short/enclitic” forms in West and South Slavic, as we see in these Dsg long/short forms: Czech *jemu/mu*, Serbo-Croatian *njemu/mu*. The long vs. short/enclitic distinction is also found among the reflexive and the first person and second person singular pronouns, illustrated with Dative forms for ‘me’, ‘you’, ‘self’: Czech *mně/mi, tobě/ti, sobě/si*; Serbo-Croatian *meni/mi, tebi/ti, sebi/si*. The possessive and interrogative pronouns *mojb* ‘my’, *našъ* ‘our’, *kъde* ‘where’, *čъto* ‘what’ etc. have been the most stable and most modern reflexes are transparent continuations of the LCS forms. The indefinite pronoun *vъše* ‘all, everything’ shows variation in results for the second velar palatalization: Russian *vse*, Czech *vše*, Bulgarian *vsičъko*.

## 7. Conclusion

In sum, most Slavic languages that have case have three main paradigms, each associated with a prototypical gender. Two of the paradigms, the descendants of the  $\bar{a}$ -/ $\bar{j}\bar{a}$ -stem and i-stem paradigms are associated with feminine gender, though masculine (virile)  $\bar{a}$ -/ $\bar{j}\bar{a}$ -stem nouns persist as a productive subtype (showing some tendency toward migration to the o-/jo-stem type). The feminine paradigms have been relatively stable throughout the Slavic era. The o-/jo-stem paradigm is associated with both masculine and neuter gender, and its history has been marked by the differentiation of masculine from neuter in the Nominative and Accusative and the development of animacy/virility distinctions. A residue of C-stem nouns (mostly neuter) accounts for a small number of exceptions to this overall pattern. The Slavic languages can be distinguished on the basis of their preservation, loss, and innovation of morphophonemic alternations in their nominal paradigms, as well as their tendencies to level distinctions across or within paradigms (particularly in the plural). Whereas pronouns and nouns were clearly distinct word-classes, both adjectives and numerals followed the nominal declensions (except the pronominal *edinъ/edьnъ* ‘1’). The invention of compound adjectives created a new adjectival type with a hybrid of nominal and pronominal paradigms, which persists as the dominant type in Slavic. Among numerals *dъva* (masc)/*dъvě* (fem/neu) ‘2’ had the most influence on historical developments, leading to the evolution of paucal, counted, and virile forms.

## 8. Literature (selected)

- Dahl, Östen (1985): *Tense and aspect systems*. Oxford.
- Feinberg, Lawrence (1978): “Thematic vowel alternation in Common Slavic declension.” // *Folia Slavica* 2. 1–3. 107–121.
- Janda, L. A. (1994): “The spread of athematic 1sg -m in the major West Slavic languages.” // *Slavic and East European Journal* 38/1. 90–119.
- Janda, L. A. (1996a): *Back from the brink: a study of how relic forms in languages serve as source material for analogical extension*. Munich/Newcastle.
- Janda, L. A. (1996b): “Figure, ground, and animacy in Slavic declension.” // *Slavic and East European Journal* 40/2. 325–355.
- Janda, L. A. (1999): “Whence virility? The rise of a new gender distinction in the history of Slavic.” // Mills, M. H. (ed.). *Slavic gender linguistics*. Amsterdam/Philadelphia. 201–228.
- Janda, L. A. (2000a): “From TORT to TuRT/TRuT: Prototype patterning in the spread of Russian N(A)pl -á.” // Ferder, Leon/Dingley, John (ed.). *In the Realm of Slavic Philology: To Honor the Teaching and Scholarship of Dean S. Worth From His UCLA Students*. Bloomington. 145–161.
- Janda, L. A. (2000b): “From number to gender, from dual to virile: bridging cognitive categories.” // Tobin, Yishai/Contini-Morava, Ellen (eds.). *Lexical and grammatical classification: same or different?* Amsterdam. 73–86.
- Lunt, H. G. (1974): *Old Church Slavonic Grammar*. The Hague.
- Schmalstieg, W. R. 1983. *An Introduction to Old Church Slavic*. Columbus.
- Townsend, C. E./Janda, L. A. (1996): *Common and Comparative Slavic: Phonology and Inflection*. Columbus.

Laura A. Janda, Tromsø (Norway)