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FIGURE, GROUND, AND ANIMACY IN SLAVIC DECLENSION*

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0.0 Introduction. Animacy is just one of many distinctions that can be made along the scale of SELF vs. OTHER.¹ Beginning in Late Common Slavic and continuing to the present, Slavic languages have developed diverse and richly articulated distinctions at various points along this scale, among them VIRILE vs. NON-VIRILE, ANIMATE vs. INANIMATE, and FIGURE vs. GROUND. These distinctions have been achieved morphologically through the analogical extension of genitive-accusative, and through the spread both of Apl -y to the Npl, and the spread of old *ũ*-stem desinences. In many instances, former *ũ*-stem case endings have been implemented to signify either typical FIGURES or typical GROUNDS, and the choice of which role they play is largely predictable from the function of the given case.

1.0 SELF vs. OTHER. Johnson (1987: 124) gives an eloquent discussion of the universals of human perceptual experience and the way in which they shape our conceptual organization of information:

The fact of our physical embodiment gives a very definite character to our perceptual experience. Our world radiates out from *our bodies* as perceptual centers from which we see, hear, touch, taste, and smell our world. Our perceptual space defines a domain of macroscopic objects that reside at varying distances from us. From our central vantage point we can focus our attention on one object or perceptual field after another as we scan our world. . . . At a certain distance from this perceptual center our world "fades off" into a perceptual horizon which no longer presents us with discrete objects.²

Thus the way in which we bodily interact with our world gives a logical basis for a range of distinctions along the scale of SELF vs. OTHER. Our perception of the world is centered around our body (the SELF, the ultimate FIGURE) and extends to a horizon where many distinctions are no longer available (the GROUND). Some of the distinctions that are reduced at the horizon are definiteness of contour and individuation (discrete countable items dissolve into a mass). I will claim that animacy distinctions are

part of a broader spectrum of distinctions made in the Slavic languages, located within the scope of the SELF-OTHER continuum.

As suggested above, the SELF is the prototype to which all other FIGURES are compared. The SELF is not a literal self, but an idealization of this concept. As we proceed down the scale, we next encounter OTHER HUMAN BEINGS SIMILAR TO THE SELF, followed by HUMANS THAT FALL SHORT OF THIS IDEAL (e.g., the immature and the infirm), and then ANIMALS. Next come COUNT NOUNS THAT REFER TO DISCRETE OBJECTS WITH DEFINITE CONTOURS OF HUMAN SIZE OR SMALLER (large objects such as buildings tend to be associated with the GROUND). Farther down the scale are COUNT NOUNS THAT REFER TO OBJECTS THAT LACK THESE FEATURES, and farther yet are PARTS OF OBJECTS and MASSES (substances of no determinate size, and collectives). At the extreme of the GROUND (OTHER) end of the scale are LANDSCAPE FEATURES, followed by AMBIENT INTANGIBLES (such as weather, time, space, sounds, and ideologies) and ABSTRACT CONCEPTS. This exposition gives only the barest default contours of the SELF-OTHER continuum. It can be differently realized in different languages and is subject to speaker construal; although the trend is clear, it is not immutable.

SELF/FIGURE	>	>		
SELF	> HUMANS LIKE SELF	> HUMANS NOT LIKE SELF	> ANIMALS	> SMALL, DISCRETE, COUNTABLE CONCRETE OBJECTS
				OTHER/ GROUND
> OTHER COUNTABLE OBJECTS	> PARTS OF OBJECTS	> MASSES AND COLLECTIVES	> LANDSCAPE FEATURES	> AMBIENT INTANGIBLES AND ABSTRACTIONS

Although SELF-OTHER distinctions are available in all linguistic systems at all times, the fact that some Slavic languages seized the opportunity to make them grammatically explicit is well-motivated, for SELF-OTHER could serve as an umbrella concept for animacy. At the dawn of the historic era Slavic began utilizing the genitive-accusative to mark HUMANS LIKE THE SELF vs. OTHER; in Old Church Slavic (OCS) the use of GAsg syncretism admits healthy, free persons, but excludes "the sick, the crippled, the young, the enslaved, and the supernatural" (Lunt 1974: 46; cf.

also Huntley 1993: 137). The origins of the genitive-accusative (in pronominal usage, with verbs of perception, etc.) are neatly outlined in Klenin 1983, and the modern Slavic outcomes of its implementation in nominal declension, namely, a) ANIMATE vs. INANIMATE in the singular for all Slavic languages that retain declension (i.e., all but Macedonian and Bulgarian), and in the plural for Russian and Belarusian, and b) VIRILE vs. NON-VIRILE in the plural for Polish, Slovak, and Ukrainian, are well-known and reasonably clear. Considerably more complex and less well understood is the range of SELF vs. OTHER distinctions resulting from the spread of former *ũ*-stem desinences and of Apl -y to the Npl of *o*-stem nouns.³ This article explores the evolution of these distinctions.

2.0 The Former *ũ*-stem Desinences and Apl -y > Npl. The historical grammars of all the Slavic languages mention the *ũ*-stem origins of the various endings that have survived to the present day, but there is typically little discussion of how and why these morphemes became productive, and a more general pan-Slavic cross-linguistic study is lacking.⁴ The gradual spread of Apl -y to the Npl may well be a related phenomenon, since: a) Apl -y is one of only two desinences originally shared by the *ũ*- and *o*-stems, and b) Apl -y is syncretic with *ũ*-stem NAVdu -y, which, after the loss of the dual, was commonly interpreted as a NAVpl ending, and there is considerable evidence that this ending was implemented with *o*-stems as well (in the oldest texts of Old Czech, for example, there are no attestations of NAVdu -a for *o*-stems; the only ending found is -y).

2.1 Overview of Former *ũ*-stem Nouns. There is not much agreement among scholars about which substantives constitute the original class of *ũ*-stems, beyond the fact that all members of this paradigm were grammatically masculine. A comparison of a representative sample of nine works on Common Slavic, OCS, and the historical grammars of various modern Slavic languages (Van Wijk 1931, Diels 1932, Unbegaun 1935, Šaxmatov 1957, Lunt 1974, Meillet 1965, Kernyc'kyj 1967, Vážný 1970, and Gorškova and Xaburgaev 1981) yielded the following results. There are six words that are securely placed on everyone's list; we will consider these the "certain" *ũ*-stem nouns:

<i>synũ</i>	'son'	<i>domũ</i>	'house'
<i>vĩrxũ</i>	'top'	<i>medũ</i>	'honey'
<i>volũ</i>	'ox'	<i>polũ</i>	'half'

Six more items are agreed upon by six or more of the sources surveyed, and we will term these "likely" *ũ*-stem nouns:

<i>činŭ</i>	'rank'	<i>stanŭ</i>	'camp'
<i>ledŭ</i>	'ice'	<i>sadŭ</i>	'plant, tree, garden'
<i>darŭ</i>	'gift'	<i>ědŭ</i>	'poison'

Only eleven more substantives are endorsed by three or more sources; we will call them "possible" ŭ-stem nouns:

<i>sanŭ</i>	'rank'	<i>mirŭ</i>	'world; peace'
<i>rědŭ</i>	'row'	<i>olŭ</i>	'ale'
<i>rodŭ</i>	'race; birth'	<i>synŭ</i>	'tower'
<i>grozdŭ/groznŭ</i>	'grapes'	<i>dolŭ</i>	'down'
<i>dqbŭ</i>	'oak'	<i>grŭmŭ</i>	'bushes'
<i>grěxŭ</i>	'sin'		

There remains a long list of words that appear in the inventories of only one or two sources (most of these words are cited by Van Wijk 1931, Kernyc'kyj 1967, or Gorškova and Xaburgaev 1981). These words must be termed "questionable" ŭ-stem nouns and are presented in Appendix 1.

Aside from *synŭ* 'son' and *volŭ* 'ox', which signify typical FIGUREs, all "certain" and "likely" ŭ-stem nouns are inanimate and belong to at least one of the following categories: a) substances and collectives e.g., *medŭ* 'honey,' *ledŭ* 'ice,' *ědŭ* 'poison,' *sadŭ* 'plant, tree, garden,' b) locations, e.g., *vŭrxŭ* 'top,' *domŭ* 'house,' *stanŭ* 'camp,' or c) abstractions e.g., *polŭ* 'half,' *činŭ* 'rank,' *darŭ* 'gift.'⁵ All items on the "possible" list are likewise classifiable in these three categories⁶ as are all inanimate nouns on the "questionable" list with the possible exceptions of *sqdŭ* 'vessel' (in concrete, non-locational meanings), *nosŭ* 'nose,' *listŭ* 'leaf.' At first glance, these three categories appear to be nothing but a disparate hodge-podge, and they may indeed have started out that way. In North Slavic, however, these categories were interpreted as a coherent group motivated by the SELF vs. OTHER/FIGURE vs. GROUND distinction. We thus have two sets of nouns that represent opposite ends of the scale: the animate FIGUREs *synŭ* 'son' and *volŭ* 'ox' vs. the inanimate GROUNDs of substances, collectives, locations, and abstractions (*medŭ* 'honey,' *ledŭ* 'ice,' *ědŭ* 'poison,' *sadŭ* 'plant, tree, garden,' *vŭrxŭ* 'top,' *domŭ* 'house,' *stanŭ* 'camp,' *polŭ* 'half,' *činŭ* 'rank,' *darŭ* 'gift'). Missing are count nouns referring to small, discrete objects of definite form; nouns of this type are absent from the inventories of original ŭ-stem nouns, and are rare even on our list of "questionable" ŭ-stems. The role of this semantic distribution of ŭ-stem nouns (with meanings of nouns clustered at the ends of the FIGURE-GROUND continuum, leaving the central portion unrepresented) in the eventual spread of former ŭ-stem endings is discussed below in 2.2.

2.2 Overview of the Former *ǔ*-stem Endings and Their Fate. Although the *ǔ*-stem endings ceased to represent an independent paradigm well before our earliest attestations of Slavic,⁷ we can reconstruct the desinences with a fair degree of certainty. The following table shows both Proto-Indo-European endings and their realizations in Late Common Slavic:

	Singular	Plural
Nominative	-us > -ǔ	-oues > -ove
Genitive	-ous > -u	-oua(m) > -ovǔ
Dative	-ouei > -ovi	-umos > -ǔmǔ
Accusative	-um > -ǔ	-uns > -y
Instrumental	-umi > -ǔmǐ	-umīs > -ǔmǐ
Locative	-ǫu > -u	-usu > -ǔxǔ
Vocative	-ou > -u	= Nominative
	Dual	
Nominative/Accusative/Vocative	-ǔ > -y	
Genitive/Locative	-ouou > -ovu	
Dative/Instrumental	-umǫ(m) > -ǔma ⁸	

Over the course of the Proto-Slavic period various sound changes (mainly truncations and monophthongizations) rendered the identification of theme vowels, and thus paradigmatic classes, opaque. This occasioned the famous reshuffling of Slavic declension along gender lines, well underway by the time of the disintegration of Slavic into separate dialects and continuing through the historic period, in which masculine and neuter nouns from the *ǔ*-stem, consonant stem, and *i*-stem paradigms migrated toward the *o*-stem paradigm (masculines from the *a*-stem paradigm also adopt some *ǔ*- and *o*-stem endings in some of the Slavic languages) and feminine nouns from the consonant-stem and *ǔ*-stem paradigms migrated toward the *a*-stem and *i*-stem paradigms.⁹

It should come as no surprise that in migrating to the three successor paradigms, the nouns from the minor paradigms brought along some of their morphological “baggage.” The *ǔ*-stems were particularly successful in smuggling their declensional oddities aboard the *o*-stem paradigm, as attested in Appendix 2. Given the context of redefining declension class according to gender, it is appropriate to look at the relation of the *ǔ*-stem paradigm to other minor paradigms containing masculine nouns, since they were fellow-travelers on the journey to the *o*-stems. The other relevant paradigms are those of the *i*-stems and consonant-stems,¹⁰ which show considerable congruency with the *ǔ*-stem paradigm, at least in the cases listed below (note that in Late Common Slavic *ǔ* and *ǐ* could serve as hard vs. soft stem variants and did so in the relationship between the *o*-stems and *jo*-stems, for example):

	<i>ǔ</i> -stem	<i>i</i> -stem	consonant-stem
Nsg	-ǔ	-ĩ	
Asg	-ǔ	-ĩ	-ĩ
Isg	-ǔmĩ	-ĩmĩ	-ĩmĩ
Dpl	-ǔmũ	-ĩmũ	-ĩmũ
Ipl	-ǔmi	-ĩmi	-ĩmi
Lpl	-ǔxũ	-ĩxũ	-ĩxũ

All of these endings (except the Asg and, perhaps, the Nsg) were not only parallel among the minor paradigms containing masculine nouns, but also distinct from the *o*-stem endings for these cases. As we will see below, when *ǔ*-stem endings from this group became productive, they tended to do so in a qualitatively different fashion than the other *ǔ*-stem endings: they were usually generalized to an entire sector of the lexicon based on formal rather than semantic characteristics. The paradigmatic congruence of the masculine *ǔ*-stem, *i*-stem, and consonant-stem declension classes may have made it possible for these three classes to support each other's survival up to the Late Common Slavic period, in spite of the insignificant number of nouns that paid them allegiance.

The only points of syncretism between the *ǔ*-stem and *o*-stem paradigms were the Asg -ǔ and Apl -y. However, it is probable that the masculine *o*-stems adopted the Nsg ending -ǔ well prior to the time when other *ǔ*-stem endings became productive, although the origin of Nsg -ǔ for masculine *o*-stems belongs to distant history and cannot be recovered with absolute certainty. The universalization of Nsg -ǔ is pan-Slavic and likely involved a combination of phonological and morphological factors (an excellent discussion is found in Feinberg 1978). Once established, Nsg -ǔ had important ramifications for relations of gender and paradigm. Since neuter *o*-stem nouns developed the phonologically expected Nsg -o, the implementation of Nsg -ǔ with masculine nouns gave them a separate gender identity within the *o*-stem paradigm, a development that was certainly consonant with the innovation of gender-based declension. Subsequent to this development there were two groups of exclusively masculine nouns, namely the masculine *o*-stems and the *ǔ*-stems, that had one set of endings in the Nsg, Asg, and Apl. The nominative and accusative, commonly termed the "direct" cases, ordinarily enjoy a higher frequency (and therefore salience) than all other cases combined and are crucial to paradigm identity.¹¹ I will suggest that on the basis of the data available to them, learners of Late Common Slavic made the abduction that there was but one category of nouns with variant endings in most oblique and plural cases. This was not, however, a sudden shift, but more likely a gradual drift. In the early stages, the *o*-stem and *ǔ*-stem masculine nouns, though now identified with each other, constituted two subsystems within the masculine paradigm. The association of original *ǔ*-stem nouns with *ǔ*-stem endings initially remained strong, being

maintained by tradition (cf. "adaptive rules" in Andersen 1973). With time the strength of this association and of the subparadigm as a whole waned.

The *ǔ*-stem endings had different fates in the development of the modern Slavic languages. They were: a) universalized very early, perhaps on paradigmatic grounds alone (this applies in part to the initial spread of the Vsg *-u*; and to the spread of the Isg *-ǔmĭ*, Dpl *-ǔmŭ*, and Lpl *-ǔxŭ*), b) used to restore distinctiveness to *o*-stem oblique case endings that had eroded and become syncretic with direct cases (this applies to the Gpl *-ovŭ* and Ipl *-ǔmi*), c) used to reduce or increase morphophonemic alternation in nominal paradigms (this applies to some aspects of the spread of Vsg *-u*, Lpl *-ǔxŭ*, Npl *-ove*, and Lsg *-u*, and to the spread of the *-ov-* infix in South Slavic)¹², d) used to mark new semantic distinctions (this applies to the spread of Npl *-ove*, Gsg *-u*, Lsg *-u*, and Dsg *-ovi*), or e) lost (each of the *ǔ*-stem endings, with the exception of the NAsg *-ǔ*, has failed to survive in at least one Slavic language). The endings grouped in a) began to spread so early that we have little or no written records to tell us how and when this change took place. It is even possible that we are simply dealing with dialectal variation, where some parts of the Slavic territory inherited *o*-stem endings that looked like *ǔ*-stem endings (in every case except the Vsg the posited endings are similar, differing only in the identity of a vowel, with *ǔ*-stem *-ǔ*-opposed to *o*-stem *-o-*). Solutions b) and c) likewise involve paradigmatic factors, although c) was usually a secondary factor in a change of a primarily paradigmatic or semantic nature. The endings that will be the main focus of this article are grouped in d), for they involved the building of new linguistic categories. It must be kept in mind that the relevance of these factors varied significantly from language to language.

The spread of *ǔ*-stem endings can be broken down into three periods, which certainly overlapped, but are presented in approximate chronological order. The paradigmatic period includes the endings that found parallels in the *i*-stem and consonant-stem paradigms. The present assignment of some items to one or another period is motivated primarily by the phenomena as observed in North Slavic, since the spread of *ǔ*-stem endings was driven almost exclusively by paradigmatic factors in South Slavic. Some case endings straddle both paradigmatic and semantic periods, and the assignment here was determined either by which consideration was prior (as in the case of Vsg *-u*, where semantic factors come later) or by which consideration was employed by more languages (as in the case of Lsg *-u*, which was paradigmatically motivated in Slovene and Serbo-Croatian, but semantically motivated in North Slavic).

Prehistoric period: Nsg *-ǔ*

Paradigmatic period: Vsg *-u*, Gpl *-ovŭ*, Isg *-ǔmĭ*,

Lpl *-ǔxŭ*, Dpl *-ǔmŭ*, Ipl *-ǔmi*

Semantic period:

markers of animacy: Npl *-ove*, Dsg *-ovi*

markers of inanimacy: Gsg *-u*, Lsg *-u*

In North Slavic it appears that the spread (or, in most languages for one or more of these endings, loss) of the endings in the paradigmatic period destabilized the subparadigm of original *ũ*-stem endings within the *o*-stem paradigm. Subsequent to this period, original *ũ*-stem endings are no longer necessarily associated with each other. The remaining *ũ*-stem endings thus act as free, independent units in the semantic period.

Given the odd semantic distribution of *ũ*-stem nouns, with representation clustered at the extreme ends of the SELF-OTHER/FIGURE-GROUND scale and the more ambiguous central portion left empty, Slavs made the abduction that the remaining "extra" endings available in the *o*-stem paradigm signified either typical FIGUREs or typical GROUNDs. Animacy was, however, already at work in the *o*-stem paradigm, and it helped to decide which original *ũ*-stem endings would be assigned to FIGUREs and which to GROUNDs. *Synũ* 'son' acquired an animate genitive-accusative singular in *-a* (like any other animate *o*-stem noun), and this effectively removed the *ũ*-stem Gsg *-u* (and by extension, the syncretic Lsg *-u*) from the animate declension.¹³ At this point I suggest that a reanalysis of the roles of the Npl *-ove*, Dsg *-ovi*, Gsg *-u*, and Lsg *-u* took place, motivated by the opportunity to align markedness values of case, gender, and FIGURE-GROUND/animacy. What follows is a sketch of the chain of reasoning that likely motivated the assignment of Npl *-ove*, Dsg *-ovi* to FIGURE and of Gsg *-u*, Lsg *-u* to GROUND.¹⁴

Abductions:

—in the absence of any special context, FIGURE (which includes animates) is marked, GROUND (exclusively inanimate) is unmarked

—against the background of the above generalized distinction, there is a natural correlation between certain cases and FIGURE-GROUND/animacy:¹⁵

the nominative is the case of the subject and therefore FIGURE
(FIGURE is unmarked for nominative)

the dative is the case of the potential subject and therefore also
FIGURE

(FIGURE is unmarked for dative)

the locative is the case of location or circumstance and therefore
GROUND

(GROUND is unmarked for locative)

the genitive has no particular preference for either, and therefore assumes the default value, with GROUND as unmarked

(GROUND is unmarked for genitive)

—Npl *-ove*, Dsg *-ovi*, Gsg *-u*, and Lsg *-u*, as “extra” endings, carry no particular mark, although Npl *-ove*, and Dsg *-ovi*, being bisyllabic, are relatively marked, as opposed to the *o*-stem Npl *-i* and Dsg *-u*; cf. Jakobson’s (1958/1971) interpretation of this correlation between length of desinence and markedness.

Deductions:

—the variant endings are used for the most unmarked instantiations of the cases where they appear, thus Npl *-ove* and Dsg *-ovi* mark animate FIGURES and Lsg *-u* and Gsg *-u* mark inanimate GROUNDS

—the relatively marked longer endings Npl *-ove* and Dsg *-ovi* mark (overall) relatively marked animate FIGURES.

In sum, the remaining *ũ*-stem endings followed the path of least resistance offered to them by the markedness values in the language, each seeking the least marked position and at the same time maximizing alignment of semantic (FIGURE vs. GROUND) and formal (bisyllabic vs. monosyllabic) markedness values. The remainder of this article examines case studies of the spread of former *ũ*-stem endings and Apl *-y* > Npl and the new semantic distinctions they created.

2.3 A Range of Virility: Polish Npl *-owie* vs. *-il(-y)* vs. *-y/(-i)*.¹⁶ A number of factors have shaped the use of Npl endings in Polish. First there was the spread of Npl *-owie*, which came into competition with the Npl endings for hard (former *o*-stems) and soft (former *jo*-stems and *i*-stems) stem nouns, *-il(-y)* and *-e*, respectively. Although *-owie* was primarily spread to virile stems, it is attested with all types of masculine stems in Old Polish and its use has been gradually curtailed since the fifteenth century. The spread of Npl *-owie* was followed by the step-by-step extension of the Apl *-y/(-i)* to inanimates, animates, and eventually some viriles in the Npl. The distribution of Npl *-owie* vs. *-il(-y)*, *-e* marks a point on the SELF-OTHER scale higher than VIRILE vs. NON-VIRILE, as demonstrated below. The table summarizes the stages that led to the distribution of Npl endings in modern Polish. The remaining discussion will focus on hard stem nouns, although the factors motivating the selection of Npl *-e* vs. *-owie* for soft stems are basically the same as those motivating Npl *-il(-y)* vs. *-owie* for hard stems.¹⁷ Npl endings that were marked or unusual in a given period are in square brackets.

	virile	animate	inanimate
15th	<i>-owie</i> , <i>-il(-y)</i>	<i>-il(-y)</i> , <i>-y/(-i)</i> , [<i>-owie</i>]	<i>-y/(-i)</i> , [<i>-il(-y)</i>], [<i>-owie</i>]
16th–17th	<i>-owie</i> , <i>-il(-y)</i>	<i>-y/(-i)</i> , [<i>-il(-y)</i>], [<i>-owie</i>]	<i>-y/(-i)</i>
18th–19th	<i>-owie</i> , <i>-il(-y)</i> , [<i>-y/(-i)</i>]	<i>-y/(-i)</i>	<i>-y/(-i)</i>

The old Npl ending *-y/(-i)* had already spread to inanimate and animate stems in the 15th century; it was gradually universalized for both categories and began to spread to viriles as a deprecatory form in the 18th–19th centuries. During the same five centuries we observe that the use of the old (*o*-stem) Npl *-i/(-y)* and of the innovative Npl in *-owie* contracts to include only virile stems. In modern Polish *-i/(-y)* is the neutral Npl form for the majority of (hard stem) virile nouns; *-owie* is a marked, honorific form; and *-y/(-i)* is a deprecatory form (rarely used for most nouns; this form also requires the use of non-virile agreement with adjectives and verbal *l*-participles). There is a subset of virile nouns, however, for which *-owie* is the neutral Npl, and there is also a subset of virile nouns for which *-y/(-i)* is the expected form. We will examine these groups in somewhat more detail.

The SELF ranks highest on the SELF-OTHER scale, followed by HUMANS LIKE THE SELF, and then HUMANS NOT LIKE THE SELF. All three of these groups, ranked as they are above ANIMALS, can be rightly termed viriles (given the fact that our discussion is limited to masculine nouns). The Npl endings *-owie*, *-i/(-y)*, and *-y/(-i)* are used in Polish both to distinguish HUMANS LIKE THE SELF from HUMANS NOT LIKE THE SELF, and to make finer distinctions within the category of HUMANS NOT LIKE THE SELF, pragmatically promoting some to higher (honorific) status and demoting others to the status of non-viriles.

Among most nouns for which Npl *-owie* is obligatory, there is a clear relationship of similarity to the SELF, which serves as the prototypical FIGURE: a unique, named human being in close association with the speaker/hearer's ego (ideally if not really male). The persons who are most like this SELF are (male) blood relatives, since they are in a sense "copies" of the SELF. One important male kinship term *syn* 'son,' is an original *ũ*-stem and surely played an essential role in motivating the spread of Npl-*owe* in West Slavic. As a rule, Polish masculine kinship terms require *-owie*.¹⁸ Npl *-owie* likewise appears on family names, and this ending is further extended to given names. Some larger groupings are based on aggregates of families, such as clans, tribes, and nations and the nouns that name them can also have *-owie*, although other factors may come into play. Npl *-owie* is more likely for monosyllabic names of nations, as in *Bałowie* 'Balts,' *Siuksowie* 'Sioux,' but with nouns in *-anin*, the Npl is *-e*. Thus kinship (i.e., relation to SELF) suggests the extent of obligatory Npl *-owie*, as well as some non-obligatory extensions.

Viriles in Polish are also differentiated according to relative salience; at the extreme ends of this scale are persons of high social status as opposed to marginalized or maligned members of the population. Npl *-owie* is virtually required for prestigious titles, such as *król* 'king,' Npl *królowie*, *generał* 'general,' Npl *generałowie*. For some professions Npl *-owie* is expected, as in *geograf* 'geographer,' Npl *geografowie*, *astronom* 'astronomer,' Npl *as-*

tronomowie. Both *-i/(-y)* and *-owie* are used, the latter with an honorific connotation for the names of many professions; cf. *psycholog* 'psychologist,' Npl *psycholodzy/psychologowie*, *profesor* 'professor,' Npl *profesorzy/profesorowie*. In post-war Poland *-owie* has become increasingly popular, and even nouns that are listed in dictionaries only with *-i/(-y)* are used with *-owie* in spoken Polish, e.g. *prezydent* 'president,' Npl *prezydenci* (standard Polish)/*prezydentowie* (spoken Polish).

For pejorative nouns referring to human males, the use of Npl *-owie* and even the otherwise neutral *-i/(-y)* are marked (ironic); instead the non-virile *-y/(-i)* (paralleled by non-virile syntactic agreement) is expected. The use of a non-virile ending with negatively evaluated nouns signals an attempt to distance the SELF from such "undesirables" and to demote them to the status of ANIMALS and females. The deprecatory form in *-y/(-i)* is typically used with lexical items like *bękart* 'bastard,' Npl *bękarty*; *cham* 'cad,' Npl *chamy*; *koniokrad* 'horsethief,' Npl *koniokrady*. Npl *-y/(-i)* is also common for nouns denoting racial, ethnic, or other minorities: *czarnuch* 'black,' Npl *czarnuchy*; *żyd* 'Jew,' Npl *żydy* (non-deprecatory: *Żydzi* 'Jews' or *Żydowie* 'Israelites'); *cygan* 'gypsy,' Npl *cygany* (non-deprecatory: *cyganie*); *karzeł* 'midget, dwarf,' Npl *karły*; *pedał* 'homosexual (vulg.),' Npl *pedały*. Npl *-y/(-i)* variant forms are not uncommon with virile nouns referring to immature males: *sztubak* 'schoolboy' Npl *sztubaki/sztubacy*; *chłopak* 'boy,' Npl *chłopaki/chłopacy* (here, however, there is no strong negative connotation). A deprecatory Npl form is theoretically possible, but in practice rarely used, for all other nouns with virile reference.

2.4 Transition to ANIMATE vs. INANIMATE: Czech Npl *-ové* vs. *-i* vs. *-y*. Like Old Polish, Old Czech has attestations of *-ové* with inanimates as well as animates, but has since curtailed the use of this ending, which is now restricted to (mainly virile) animates. Czech also witnessed the extension of the old Apl *-y* (and for soft stems *-ě*) to the Npl, but in Czech this ending was implemented only for inanimates and ceased spreading by the year 1600. Thus Czech has an animacy (not a virility) distinction in the Npl, with inanimates having *-y/ě* (as hard/soft variants), and animates having *-i, -é* (from the old consonant-stem ending *-e* and the old *i*-stem Npl for masculines in *-ije* > *-é*), and *-ové*. Most animate stems have Npl *-i*, and indications are that the domains of both *-é* and *-ové* are contracting while *-i* is expanding (Sgall & Hronek 1992: 39, Komárek *et al.* 1986: 293; Kořenský 1972: 18–19). Npl *-é* and *-ové* are associated primarily with virile nouns, although there is some use of *-ové* alongside *-i* with nouns referring to animals (these nouns, however, must share some morphological characteristic with viriles for which *-ové* is common, usually a diminutive *-ek* or a stem in *-l*: *ptáček* 'bird (dim.),' Npl *ptáčci/ptáčkové*; *mýval* 'raccoon,' Npl *mývali/mývalové*). The extent of Czech Npl *-ové* reveals some parallels to the distribution of *-owie* in Polish; it

is typically used with: first and last names (*Václavové, Čapkové*); kinship terms (*otcové* 'fathers,' *vnukové/vnuci* 'grandsons'); some ethnic names (*Arabové* 'Arabs,' *Rusové* 'Russians'); and professions (*pedagogové* 'pedagogues,' *ekonomové* 'economists'). The use of Npl *-ové* in Czech does not, however, confer any honorific connotation; it can be used even with nouns that are strongly pejorative (e.g., *Švábové* 'Germans (pejor.)'). Czech Npl *-ové*, therefore, is implemented to make a distinction transitional between animacy and virility, without making finer distinctions among viriles as in Polish.

2.5 Transition to ANIMATE vs. INANIMATE: Czech DLsg *-ovi*. The earliest attestations of Old Czech show Dsg *-ovi* with viriles, especially proper names. Since then Dsg *-ovi* has gradually expanded its domain; today it can be used with nearly all animate masculine nouns, and *-ovi* has spread to the Lsg as well for this sector of the lexicon. The reflexes of the Dsg *o*-stem (*-u*) and *jo*-stem/*i*-stem/consonant-stem (*-i*) desinences are also present in the modern language and compete with *-ovi*; the latter has been established as the only admissible form only for *a*-stem viriles (cf. *hrdina* 'hero,' DLsg *hrdinovi*; but note that viriles in *-ce*, which descend from the *ja*-stem paradigm, permit both *-i* and *-ovi*, thus *soudce* 'judge,' DLsg *soudcilsoudcovi*). The admissible ranges of Npl *-ové* and DLsg *-ovi* are not co-extensive; in the spoken language the use of Npl *-ové* is declining, whereas the use of DLsg *-ovi* is on the rise, and in both the literary and spoken languages the coexistence of variant forms is more widespread in the DLsg than in the Npl. DLsg *-ovi* appears on nouns with animal referents more readily than Npl *-ové*, which remains limited almost exclusively to viriles. Thus the basic association with virility is tangible in both cases, but is less pronounced in the DLsg. The literary language requires Dsg *-u* for some viriles: *bůh* 'god,' *duch* 'spirit,' *Kristus* 'Christ,' *člověk* 'person,' *čert* 'devil'; Dsg *-u* is more likely to appear on nouns modified by the demonstrative *ten* or an adjective (where its presence is likely supported by assonance with *-omul-émul-ímu*); on Slavic family names in *-ov/-ev* (perhaps to avoid repetition of vowel plus "v" in successive syllables), and it is prescribed on all but the last item of a combination of title and/or first plus last name, as in *panu Janu Novákovi* 'Mr. Jan Novák (Dsg).' In the spoken language Dsg *-ovi* can be substituted for *-u/-i* in all of the situations described in the preceding sentence. However, Czech does not use DLsg *-ovi* with facultative animates (inanimate masculine nouns that have GAsg *-a* and, in some cases, an expressive Npl in *-i*), probably due to the basic association of *-ovi* with virility rather than animacy.

2.6 FIGURE vs. GROUND. FIGURE is a category more inclusive than ANIMATE on the SELF-OTHER scale, and the FIGURE-GROUND

distinction, especially as realized in the Gsg, is among the most elusive in the morphology of Slavic. Grammars of North Slavic languages devote considerable space to discussing the use of Gsg *-u*, which is highly complex in all of these languages except Czech and Russian. The metaphorical nature¹⁹ of the FIGURE vs. GROUND distinction helps to explain two of the most troubling and apparently contradictory facts about Gsg *-a* vs. *-u*, namely that a) native speakers have no difficulty learning, using, and agreeing on this distinction (because the FIGURE-GROUND distinction is exceedingly well-grounded in universal human experience); but b) linguists have great difficulty describing the distribution of these two endings. It is easy to see why this is the case when we remember that the FIGURE-GROUND distinction is really a metaphor for how we relate to our world, both subjectively and objectively. It is well known that a metaphor is rarely reducible to an algorithm.

2.6.1 Polish Gsg *-u/-iu*. Roughly two-thirds of all masculine inanimate nouns in Polish have *-u* as either their only Gsg ending or as an alternate. All animate nouns admit only *-a*, as do a number of inanimate nouns, and the use of *-a* with inanimates appears to be growing, spurred by the popular use of Asg *-a* to mark attributed animacy.²⁰ It appears that Gsg *-u* underwent most of its expansion to inanimate nouns in the 14th–18th centuries, but has been losing ground since.

Scholars of Polish have pursued the role of Gsg *-u* with great vigor, the most diligent among them being Westfal (1956), who produced a large monograph of this topic after sifting through 175,000 pages of literature written in the first half of this century (a particularly valuable, if dated, source, since it presents data on actual usage). Kottum (1981) correctly criticizes Westfal and other Polish scholars for their atomistic approach, and properly identifies animacy and “individualization” as more abstract and general factors in the distinction between Gsg *-a* vs. *-u*. But the actual picture is vastly more complex and interesting. What emerges is a system of semantic associations motivated by FIGURE vs. GROUND. Although the main division is semantic, there is a trickle-down effect that causes the opposition to spill over into morphological and phonological associations. Because certain suffixes bear meanings relevant to FIGURE or to GROUND, they become opposed on morphological grounds, and, furthermore, because certain final segments or stem shapes are phonologically similar to these suffixes, phonological oppositions are also manifest. Thus each pole of the opposition is represented by an assembly of semantic, morphological, and phonological categories operating in concert. In the Table below, classes of nouns that are used more frequently with the given ending are listed before the > symbol; italics mark sectors of the lexicon where both endings occur in significant numbers. Most of the examples used below are taken from Westfal 1956 and Kottum 1981

(although the organization of data here is very different). Taking into account the data that have been presented so far in the literature, the implementation of FIGURE-GROUND as Gsg *-a* vs. *-u* in Polish can be summed up in the following way:

FIGURE Gsg <i>-a</i> (Marked)	FIGURE VS. GROUND	GROUND Gsg <i>-u</i> (Unmarked)
	SEMANTIC ASSOCIATIONS	
SELF	OF:	NON-SELF
1) <i>human size or smaller</i>	SELF VS. NON-SELF	1) <i>large/indeterminate size > human size or smaller</i>
2) <i>native > foreign</i>		2) <i>foreign > native</i>
3) <i>diminutive > non-diminutive</i>		3) <i>non-diminutive > diminutive</i>
INDIVIDUATED	INDIVIDUATED	NON-INDIVIDUATED
1) <i>counted > count</i>	VS.	1) <i>abstract > mass > collective > count</i>
2) <i>3-D with definite form > 3-D part; 0-D point</i>	NON-INDIVIDUATED	2) <i>1-D line > 2-D surface > 3-D mass > 3-D part; 0-D point</i>
FOREGROUNDED	FOREGROUNDED	BACKGROUNDED
<i>humans > animals + animized objects > instruments > other objects</i>	VS.	<i>ambient intangibles > landscape features > other objects</i>
	BACKGROUNDED	
	MORPHOLOGICAL ASSOCIATIONS	
suffixes associated with agency and <i>diminutives</i>	FIGURE VS. GROUND	deverbal \emptyset suffix acronyms
	PHONOLOGICAL ASSOCIATIONS	
<i>soft stems</i>	FIGURE VS. GROUND	<i>monosyllabic stems</i>
<i>similarity to above suffixes</i>		

As mentioned above, the prototypical FIGURE is the idealized SELF, which can also be thought of as highest on the scale of individuation and of foregrounding. The SELF has a characteristic range of sizes, with that of an adult at the maximum end of the scale. Thus small or human-sized concrete objects tend to use *-a*, as in *garnek* 'pot,' Gsg *garnka* (unless another factor, such as foreign origin, induces *-u*), whereas things of large or indeterminate size tend to use *-u*, as in *las* 'forest,' Gsg *lasu*. Because the idealized SELF in this case is a Pole, familiar native Polish words are more likely to take *-a*, whereas unfamiliar non-native words will take *-u*, as we see in these two words, both of which mean 'sidewalk': *chodnik*, the native word, has Gsg *chodnika*, but *trotuar*, a borrowing from French, has Gsg *trotuaru*. As a

foreign word becomes more familiar and integrated into Polish, it may drop *-u* in favor of *-a*, as in *termometr* 'thermometer,' for which dictionaries list only Gsg *termometru*, but which usually has the form *termometra* in speech. Familiar native Polish place names are also more likely to take *-a*, as in *Krakowa* but *Sztokholmu*. In his conclusion, Westfal (1956: 360–1) gives voice to his native intuitions, describing Gsg *-a* as "rough" and "depreciative" as compared to "elegant" *-u*. Relative distance from the SELF motivates this subjective, yet valid observation. Gsg *-u* ideally designates a vague concept on the SELF's horizon that is thus ascribed the exotic cachet of something intangible and inaccessible. By contrast, *-a* ideally designates the mundane physical objects that permeate our everyday life.

Diminutive forms are used to enhance the identification with the SELF of (usually already individuated) objects or beings. The best candidates for diminutive formation are nouns denoting people, animals, and common concrete objects, particularly ones with a single, definite referent. The effect of a diminutive is to suggest reduced physical size and/or increased emotional closeness,²¹ both of which bring the referent closer to the SELF. Although both diminutive and non-diminutive forms show both *-a* and *-u*, and although there is a tendency to assign to the diminutive form the same ending used with the non-diminutive form, there is an overall tendency to prefer *-a* with diminutives, e.g. *gwizd* 'whistle' has Gsg *-u* (see below), but the diminutive *gwizdek* 'whistle blast,' has Gsg *-a*.

Individuation has two parameters: countability and dimensionality. "Countability" ranges from best to worst examples on a scale that looks like this: counted > count > collective > mass > abstract.

Counted nouns are units of measure that frequently occur with numerals or have an internal numerical structure. Gsg *-a* is the norm for these nouns, which include all the names of months,²² such as *grudzień* 'December,' Gsg *grudnia*; all substantive numerals, such as *dwudziestek* 'score,' Gsg *dwudziestka*; and the vast majority of units of measure, *cal* 'inch,' Gsg *cala*.

Count nouns are other non-mass nouns with a normal sg vs. pl distinction. Additional factors usually determine which Gsg ending is applied. Gsg *-a* is normal for *łumok* 'bundle,' Gsg *łumoka*, as we would expect for a discrete, concrete object that is not very large, but *pakiet* 'packet,' though it describes a similar item of realia, has Gsg *pakietu*, presumably because of its foreign origin.

Collective nouns denote groups of objects no longer viewed as individuals, but rather as a single undifferentiated whole. Many of these nouns do have plural forms (and are thus technically *count* nouns), but they usually appear in the singular. As a rule, collectives take *-u*, regardless of the identity of the objects of which they are composed. Examples include *ogół* 'aggregate,' Gsg *ogółu*; *rój* 'swarm,' Gsg *roju*; *łup* 'booty,' Gsg *łupu*.

Mass nouns typically have no plural forms and denote substances or

materials. The vast majority of these nouns use Gsg *-u*, including: *ołów* 'lead,' Gsg *ołowiu*; *barszcz* 'beetroot soup,' Gsg *barszczu*; *łój* 'tallow,' Gsg *łoju*; and a large number of borrowings, such as *asfalt* 'asfalt,' Gsg *asfaltu*.

Abstract nouns likewise usually lack a plural form and strongly prefer Gsg *-u*, among them: *gniew* 'anger,' Gsg *gniewu*; *chłód* 'cold,' Gsg *chłodu*; *bezrząd* 'anarchy,' Gsg *bezrządu*; and a large number of foreign words, among them all words in *-izm*: *kapitalizm* 'capitalism,' Gsg *kapitalizmu*.

"Dimensionality" can be broken down into the following scale: three-dimensional objects of definite form > parts of three-dimensional objects > three-dimensional masses > two-dimensional surfaces > one-dimensional lines > zero-dimensional points.

Discrete three-dimensional objects of definite form are the only items on this scale that are highly individuated and show a strong tendency to use Gsg *-a* (provided they are neither very large nor of foreign origin): *pas* 'belt,' Gsg *pasa*; *kosz* 'basket,' Gsg *kosza*.

Parts of three-dimensional objects show considerable variation in use of Gsg endings. Body parts, for example, tend to use *-a*, especially if they can act as FIGURES: *język* 'tongue,' Gsg *języka*; *łeb* 'head,' Gsg *łba*; *nos* 'nose,' Gsg *nosa*. Otherwise, *-u* is the norm: *otwór* 'opening,' Gsg *otworu*; *przód* 'front,' Gsg *przodu*.

Three-dimensional masses, two-dimensional surfaces, and one-dimensional lines all show a strong preference for *-u*: *pył* 'dust,' Gsg *pyłu*; *czworobok* 'quadrangle,' Gsg *czworoboku*; *okrąg* 'area,' Gsg *okręgu*; *rynek* 'town square,' Gsg *rynku*; *obwód* 'circumference,' Gsg *obwodu*.

Zero-dimensional points are somewhat problematic, partly due to the fact that we tend to conceive of them as solid concrete objects because non-dimensionality is not part of our everyday (largely three-dimensional) experience. There is also the fact that a point by its very nature tends to stand out as a FIGURE. There is therefore an anomaly in the dimensionality scale, for points admit both *-u* and *-a*. The use of *-u* vs. *-a* for settled points, such as cities, is influenced by whether they are foreign or native, as described above. The word *przystanek* 'stop, halting point,' is typical here, for it admits both endings; foreign *punkt* 'point,' however, uses only *-u*.

The scale of foregrounded vs. backgrounded perhaps comes closest to schematically representing the "parent" concept of FIGURE-GROUND, although the latter is more comprehensive. The following scale indicates the scope of this opposition: humans > animals + animized objects > instruments > other objects > landscape features > ambient intangibles.

All humans and animals take Gsg *-a*.

Animized objects have the same grammatical behavior as animate nouns. They consist primarily of nouns that have an animate homonym (or are synonymous with such a noun), or otherwise resemble animate nouns in terms of either their morphological form or in terms of the physical shape

of their referent (cf. Swan 1988 and Frarie 1992). An example is *wąż* 'snake,' which uses *-a* in all its meanings, even the inanimate 'hose' and the collective 'line of dancers.'

Instruments, due to their association with transitive action, have a very strong tendency to use Gsg *-a*, as in: *nóż* 'knife,' Gsg *noża*; and *plug* 'plough,' Gsg *pluga*.

Other objects can use both endings, with other factors playing a determining role, similar to the situation observed for count nouns above.

Landscape features, which typically serve as locations, strongly prefer the use of *-u*, as in: *przesmyk* 'isthmus,' Gsg *przesmyku*; *niż* 'lowland,' Gsg *niżu*; *rów* 'ditch,' Gsg *rowu*.

Ambient intangibles include natural phenomena, sounds, ideologies, emotions, processes, states, and actions. Here, too, Gsg *-u* predominates, as in: *przyptyw* 'tidal flow,' Gsg *przyptywu*; *wschód* 'east, ascent,' Gsg *wschodu*; *pożar* 'fire,' Gsg *pożaru*; *szum* 'noise,' Gsg *szumu*; *gwizd* 'whistle,' Gsg *gwizdu*; *światopogląd* 'world-view,' Gsg *światopoglądu*; *wstręt* 'fury,' Gsg *wstrętu*. The foreign borrowings in *-izm* which denote ideologies and socio-economic structures, should be included here as well.

There are a number of suffixes associated with agency, which, together with the diminutive suffixes, help to identify nouns with the FIGURE: *-as*, *-ut*, *-ec*, *-un*, *-or/-ór*, *-ur*, *-uk*, *-osz*, *-usz*, *-ysz/-isz*, *-arz*, *-erz*, *-acz*, *-al*, *-el*, *-eń*, *-uch*, *-ak*, *-ek*, *-yk/-ik*, *-nik*. Most of the nouns that have these suffixes are animate, but when they appear on an inanimate noun, that noun will typically have Gsg *-a*. If a noun ends in a sequence of segments similar to any of these suffixes, the effect is nearly the same. The following mass nouns all have Gsg *-a*, conditioned by the presence of one of the suffixes listed above or a look-alike final sequence of segments: *rozpuszczalnik* 'solvent,' *jęczmień* 'barley,' *surowiec* 'raw material.' About half of the suffixes listed above have a soft or "historically soft" final segment, a fact that is carried over into the phonological associations of the FIGURE, which tends to include most soft stems.²³ Since the *ũ*-stem nouns that contributed the Gsg *-u* were all hard, the historical distribution of *-u* among soft stems was never as great as that among hard stems, and the association of soft stems with animacy has doubtless further retarded the spread of *-u* to soft stems. Still, *-u* has not been excluded from use with soft stems, as a number of the cited forms testify: *roju* 'swarm,' *łoju* 'tallow,' *ołowiu* 'lead,' *barszczu* 'beetroot soup,' *niżu* 'lowland.'

The only feature of morphology associated with *-u* is the deverbal null suffix,²⁴ particularly important in the formation of nouns designating actions, processes, and states, here characterized as ambient intangibles. Acronyms, which serve as abstract codes for other words, also tend to use *-u*. The typical lack of a suffix, in concert with the historical preponderance of monosyllabic stems, causes monosyllabic stems to be associated with *-u*.

Most scholars (Westfal 1956, Buttler *et al.* 1971, Kottum 1981, Klemensiewicz *et al.* 1981) agree that semantic factors carry the greatest weight in determining Gsg *-a* vs. *-u*, with morphological and phonological factors playing only secondary and tertiary roles, respectively. The various semantic factors can, however, vary independently, producing conflict, and location of a given word along the semantic scales may also vary. Foreign origin can override all other factors, until its potency is diluted by time and familiarity. With very large objects size outweighs dimensionality, as in the case of buildings, which take *-u* even though they are three-dimensional objects of definite form: *ostróg* 'fortress,' Gsg *ostrogu*; *budynek* 'building,' Gsg *budynku*. The association of agency with certain suffixes and their look-alikes is so strong that their presence is often sufficient to identify the referent as a FIGURE, despite a semantic profile that would otherwise class it as a GROUND. As noted above, even mass nouns will have Gsg *-a* if they contain an agentive or diminutive suffix or a look-alike final sequence. *Dąb* 'oak,' will have Gsg *dęba* if the speaker is describing it as a tree, but *dębu* if the speaker is describing it as a source of building material. *Przypadek*, when used in the specific sense of 'grammatical case,' has Gsg *przypadka*, but appears as *przypadku* when its meaning is more abstract, corresponding to 'chance, coincidence.'

2.6.2 Lsg *-u* vs. *-ě* in Czech and Russian.²⁵ Evidence indicates that the initial spread of Lsg *-u* in North Slavic was motivated by the signalling of inanimacy, and in most languages this ending is still restricted to inanimate nouns or a subset thereof, describable in terms of stem shape. Czech and Russian, however, retain some indication of a more subtle FIGURE-GROUND distinction. In both languages the more marked desinence (*-ě* in Czech, but *-u* in Russian) is used to signal the concrete spatial location as opposed to other uses of the locative.

Judging by the tally of nouns in Komárek *et al.* (1986: 306–7), 90% of inanimate masculine hard stem nouns in Czech admit only *-u* as their Lsg ending, less than 1% admit only *-el-ě* (orthographic variants of original *-ě*), and 9% admit both endings.²⁶ Lsg *-u* spread primarily to inanimate nouns in Old Czech, but was not restricted to hard stem masculine nouns. The effect of the spread of *-u* to soft stems was effaced in the fourteenth century when the sound change of *u* > *i* caused the merger of innovative Lsg *-u* with the original soft (*jo*-stem and *i*-stem) ending *-i*, but Lsg *-u* continues to be frequent with both masculine and neuter hard stem nouns. For both genders Lsg *-u* is either the only ending or the one strongly preferred for stems ending in velars and *r*, indicating that avoidance of consonantal alteration was a factor. All published studies, however, focus exclusively on the masculine gender, so relatively little can be said at present about Lsg *-u* vs. *-ě* in neuter nouns. Kořenský's (1972: 17–18) research indicates that

actual variation in the spoken language may be much greater than that of the literary language, since many words listed in the grammars as having only Lsg *-ě* are often used with *-u* (although the reverse is less likely; if the prescribed norm is *-u*, use of *-ě* is rather rare). Komárek *et al.* (1986: 273) have suggested that the nature of the vowel in the syllable preceding the desinence may play a role, with a preference to avoid repetition of the same vowel, thus motivating *o bezu* 'about the lilac' instead of **o beze*. This, however, seems unlikely since there are no other such rules concerning vowel harmony in modern Czech, and also because a fourth of the words for which Lsg *-ě* is prescribed have *e* in the preceding syllable, with only one vowel, *o*, present in greater numbers. A more promising explanation (Komárek *et al.* 1986: 275) is that there are semantic factors at work, and this hypothesis has been verified experimentally by Bermel (1993). Bermel constructed a questionnaire to check for the influence of choice of preposition, verbal government, choice of modifiers, and other variables in the selection of Lsg *-u* vs. *-ě* for twelve masculine nouns. He discovered that the use of *-ě* is greater in the expression of familiar, typical, concrete, expected spatial locations (i.e., with the prepositions *v* 'in' and *na* 'on, at,' and with the demonstrative *ten* 'this') and that *-u* is the rule for all other uses of the Lsg (with other prepositions, with modifying adjectives, and in prepositional phrases that are governed by a verb, which are typically non-spatial). Thus Lsg *-ě* vs. *-u* in Czech marks a distinction between CONCRETE OBJECTS vs. OTHERS (such as AMBIENT INTANGIBLES and ABSTRACTIONS).

The expansion of Lsg *-u* in Russian was very modest, limited primarily to monosyllabic masculine inanimate nouns with mobile stem stress (stem stress throughout the singular and ending stress in the plural). It probably reached its peak in the 14th–15th centuries and has been in decline since. Today it is an alternate ending for only about 150 nouns, all of which also admit the desinence *-e* for their Lsg. The Lsg *-u* is always stressed and is restricted to use with the prepositions *v* 'in' and *na* 'at' in non-modified prototypical expressions of spatial location (cf. Worth 1984). In modern Russian Lsg *-u* occurs almost exclusively with monosyllabic and nonsyllabic stems (and in some cases, the nonsyllabic stems come from originally syllabic stems that later acquired a vowel-zero alternation via analogy, as in the case of Common Slavic *ledŭ* 'ice' and *rovŭ* 'ditch' which yield Russian Nsg *lěd*, Gsg *l'dá* and Nsg *rov*, Gsg *rvá*). There are ten nouns with polysyllabic Nsg forms, but most of these derive from monosyllabic stems, via pleophony (e.g. Common Slavic *bergŭ* 'bank' > Russian *béreg*, Lsg *beregú*), diminutive formation from a monosyllabic stem that also admits Lsg *-u* (e.g., *bok* 'side,' Lsg *bokú* has the diminutive form *bočók*, Lsg *bočkú*), and perhaps prefixation (e.g., *port* 'port,' Lsg *portú* probably motivates *aèropórt* 'airport,' Lsg *aèroportú* as a special type of 'port,' but

this does not extend to *pásport* 'passport'). For the vast majority of nouns that take this ending, Lsg *-u* is prosodically highly marked: approximately 90% have stem stress in the singular, and here the stressed Lsg *-u* is an anomaly (among the few nouns that are end-stressed, this accentual pattern is often due to a vowel-zero alternation, either in the root or in a diminutive suffix). Russian Lsg *-u* therefore illustrates the alignment of markedness in terms of stress, stem shape, and semantic restriction to concrete location.

3.0 Conclusion. All the singular and plural endings of the *ǔ*-stem paradigm have survived to the present somewhere in Slavic. Two basic motives for spreading these endings can be identified: a) some endings were exploited for their distinctiveness at a time before the *ǔ*-stem paradigm had entirely lost its integrity or at least when it was still partially supported by parallels in other paradigms; b) other endings were mobilized in the drive for new semantic distinctions, as free agents lacking paradigmatic associations beyond the *o*-stem paradigm. The implementation of *ǔ*-stem endings in Slavic reveals significant morphological isoglosses. Whereas South Slavic spread former *ǔ*-stem endings largely on paradigmatic grounds, generalizing them to all masculine nouns or to a phonologically definable subset thereof, North Slavic has in addition deployed *ǔ*-stem endings in proliferating SELF-OTHER/FIGURE-GROUND distinctions. This trend can be independently verified by comparing the extent to which animacy has been realized by other means in the Slavic languages. The use of genitive-accusative syncretism to mark animacy is restricted to the singular of masculine nouns in Slovene and Serbo-Croatian (and absent from the other two South Slavic languages, Macedonian and Bulgarian, which lack declension), but has been extended to the plural in most of North Slavic (differently realized as marking virility or animacy), and enhanced by *-i* vs. *-y* in the Npl in West Slavic. Thus animacy and virility distinctions have been more active in the development of North Slavic (and particularly West Slavic) than in the development of South Slavic, and it should come as no surprise that the "extra" endings of the old *ǔ*-stem paradigm have been exploited to mark these and other FIGURE-GROUND distinctions in North Slavic. The following tables outline the variety of FIGURE-GROUND distinctions made in North Slavic languages (for hard stem masculine nouns), realized by means of genitive-accusative syncretism, former *ǔ*-stem endings, and extension of Apl *-y* to the Npl. In some instances the vertical bar that indicates the cut-off point between the desinence given on the left and that on the right does not correspond exactly to the broad categories given in the headings, but this is due to the fact that more subtle FIGURE-GROUND distinctions are made, some of which have been described above.

Polish

kinship terms, names, high-status viriles

other > viriles

low-status > viriles

non-virile > animate

discrete, countable, concrete inanimate objects

other objects, masses, landscape, intangibles

Npl -owie	Npl -i	Npl -y			
GApl		Apl			
Asg -a				Asg -∅	
Gsg -a					Gsg -u

Czech

viriles

> animates

> inanimates

Npl -ovél-ě	Npl -i			Npl -y
Dsg -ovi			Dsg -u	
Lsg -ovi			Lsg -ě	Lsg -u
Asg -a				Asg -∅
Gsg -a				Gsg -u

Slovak

viriles

> animates

> discrete, countable, concrete inanimate objects

> other objects, masses, landscape, intangibles

Npl -ovial-i	Npl -y			
GApl	Apl			
DLsg -ovi		Dsg -u; Lsg -u/-el-i		
Asg -a		Asg -∅		
Gsg -a				Gsg -u

Ukrainian

viriles > animates > discrete, countable, concrete inanimate objects > other objects, masses, landscape, intangibles

Apl -iv	Apl -y		
Asg -a		Asg -∅	
Dsg -ovi		Dsg -u	
Lsg -ovi	Lsg -il-u		
Gsg -a			Gsg -u

Belarusian

viriles > animates > discrete, countable, concrete inanimate objects > other objects, masses, landscape, intangibles

Lsg -u	Lsg -e		Lsg -u
GApl		Apl	
Asg -a		Asg -∅	
Gsg -a			Gsg -u

Russian

animates > most inanimates > masses and locations lacking internal differentiation

GApl	Apl		
Asg -a	Asg -∅		
Gsg -a			Gsg -u
Lsg -e			Lsg -u

This investigation of the fate of *ŭ*-stem endings has shown that the collapse of a paradigm is gradual and that the morphemes involved do not lose their grammatical meanings, although they may develop new, additional ones at later stages in the process. The development of additional grammatical meanings is, furthermore, carried out in concert with the overall evolution of linguistic categories in a given language.

NOTES

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Belarusian: Biralá *et al.* 1957, Biryła *et al.* 1985, Bulyka *et al.* 1979, Jankoŭski 1989, Mayo 1976, 1993.

Bulgarian: Gribble 1987, Mirčev 1978, Scatton 1993, Stojanov 1980, Tilkov *et al.* 1983.

Czech: Gebauer 1960 Komárek *et al.* 1986, Short 1993a, Šmilauer 1972, Townsend 1981, 1990, Trávníček 1935, 1949, Vážný 1970.

Macedonian: Friedman 1993, Koneski 1986, Lunt 1952.

Polish: Buttler *et al.* 1971, Grappin 1956, Klemensiewicz *et al.* 1981, Rothstein 1993, Urbańczyk *et al.* 1984.

Russian: Gorškova and XaburgaeV 1981, Panov 1968, Šaxmatov 1957, Švedova *et al.* 1982, Timberlake 1993, Unbegaun 1935.

Serbo-Croatian: Belić 1965, Browne 1993, Leskien 1914, Stevanović 1962.

Slovak: Dvonč 1984, Dvonč *et al.* 1966, Mistrfk 1988, Pauliny 1990, Sabol 1980, Short 1993b, Stanislav 1967.

Slovene: Derbyshire 1993, Priestly 1993, Toporišič 1976.

Ukrainian: Bilodid 1969, Carlton 1971, Kernyc'kyj 1967, Matvijas 1974, Medvedev 1964, Shevelov 1993.

- 1 Words given in caps are intended as terms. They could easily be replaced by more "scientific" determiners, but the author is loath to resort to this, since it would detract from the immediacy of these concepts, which are very close to our ordinary, everyday concepts for these words.
- 2 For more discussion of the grounding of linguistic categories in perceptual experience, see Lakoff 1987.
- 3 The development of SELF vs. OTHER distinctions is not strictly limited to nominal morphology. In addition, we see virile numeral forms in Polish, Slovak, Serbo-Croatian, Macedonian, and Bulgarian, and the use of collective numerals in East Slavic limited to viriles, the young of animals, and pluralia tantum (an extended category of viriles and a few select others). The loss of the old dual played a significant role in the evolution of virile numeral forms; cf. Janda 1996. Unless *jo*-stems or *ja*-stems are specified, the term "o-stem" will refer to both *o*-stems and *jo*-stems, and "a-stem" will refer to both *a*-stems and *ja*-stems.
- 4 The most notable exceptions to this gap are Stieber 1971 and Geitler 1877. The first

addresses the fate of all the original Proto-Slavic nominal, pronominal, adjectival, numeral, and participial paradigms. The quantity of factual material presented leaves little room for consideration of motivating factors in this slender volume. The second work concentrates on the prehistoric period and on comparisons with non-Slavic languages, but has little to say about the ultimate fate of this paradigm in Slavic. Janda (1996) examines the fate of all *ũ*-stem desinences in all the major Slavic languages.

- 5 Unbegaun (1935: 81) gives a similar semantic breakdown for original *ũ*-stem nouns, and demonstrates the significant role these semantic categories played in the expansion of Gsg -u and Lsg -u attested in 16th century Russian documents.
- 6 The word *dqbũ* 'oak' fits imperfectly since it can refer either to a specific individual or to a generic type or substance.
- 7 Cf. Meillet (1965: 347–59) and Van Wijk (1931: 170–4), both of whom state that there are few clear examples of words with this declension. Both Lunt (1974: 46–7) and Diels (1932: 157) refuse to recognize the *ũ*-stems as a paradigm in OCS and speak instead of masculine nouns that can take *ũ*-stem endings.
- 8 Compare this with the paradigm of the masculine *o*-stems, which eventually absorbed all of the *ũ*-stem nouns and various desinences from their paradigm:

	Singular	Plural
Nominative	-os (> -o ?) > -ũ	-oi > -i
Genitive	-ōd > -a	-om > -ũ
Dative	-ōi (> -ou ?) > -u	-omos > -omũ
Accusative	-om > -ũ	-ons > -y
Instrumental	-omi > -omĩ	-ōis > -y
Locative	-oi > -ě	-oisu > -ěxũ
Vocative	-e > -e	= Nominative

	Dual
Nominative/Accusative/Vocative	-ō > -a
Genitive/Locative	ou(s) > -u
Dative/Instrumental	-omō(m) > -oma

- 9 This is of course a gross simplification, since the process of assimilation was long and complicated and also involved other phenomena such as change in gender (cf. Czech *pout* 'pilgrimage,' a feminine noun descended from masculine LCS *pqtĩ* 'way'). The process of assimilation is also ongoing, as we see, for example, in Russian, where the literary language retains features of the consonant-stem declension for neuter nouns in -*mja*, but the spoken language is dropping these features in favor of full assimilation to the *jo*-stem paradigm.
- 10 Meillet (1965: 417) and Geitler (1877: 2–4) mention the fact that there are inflectional parallels between the *ũ*-stem and *i*-stem paradigms, but neither of them discusses this point in any significant detail, nor do they consider the relationship to the consonant-stems, which is no less significant. Both of these scholars speculate on the possibility that there may have been a soft counterpart to the *ũ*-stems, positing a hypothetical *jũ*-stem class, all of whose members would have joined the *jo*-stems prior to our historical record of Slavic (cf. also Trávníček 1935: 321). This is an appealing theory, for it would motivate the use of *ũ*-stem endings on soft stems such as *mqžĩ* 'man' in OCS (cf. Meillet 1965: 358–68), as well as the odd association of "consonant-stem" endings with nouns suffixed in -*teljĩ* and -*arjĩ* (cf. Vážný 1970: 34–5 and Meillet 1965: 349–50, 371–2). If some *jo*-stem nouns were originally *jũ*-stems, this might also explain the very early generalization of the Vsg -u in that paradigm (cf. Meillet 1965: 415).
- 11 In a study of dialogues in Russian literature, Nikonov (1961: 18) found that the nominative accounted for 40–50% of case usage, while accusative was at about 20%. The

remaining 30–40% of case usage was divided among the four oblique cases, with only the genitive showing figures above 10%. We do not know what the exact figures were for LCS and it is certain that they must have differed from modern Russian usage. Still, the overall picture was probably very similar, with the nominative and accusative accounting for the majority of case usage. Note that the spread of Dpl *-am*, Ipl *-ami*, Lpl *-ax* in East Slavic did not occasion any further conflation of paradigms, and the same can be said for the spread of DLlpl *-imal-ama* in Serbo-Croatian and Ipl *-amal-ma* in spoken Czech, for the identification of a noun's paradigm is not typically made on the basis of marked peripheral forms.

- 12 Although the drive to reduce morphophonemic alternation can be felt throughout the territory, it was stronger in North Slavic than in South Slavic and strongest in East Slavic and Slovak. South Slavic languages increased stem alternations by adopting *-ov-* as a non-singular stem enlargement for monosyllabic stems, while at the same time removing the consonant alternation for those stems ending in a velar.
- 13 Unbegaun (1935: 81) notes that in the singular the inflection in OCS tended to be divided along animacy lines:

Nsg	<i>synŭ</i>	'son'	vs.	NAsg	<i>domŭ</i>	'house'
GAsg	<i>syna</i>			Gsg	<i>domu</i>	
Dsg	<i>synovi</i>			Dsg	<i>domu</i>	
Lsg	<i>syně</i>			Lsg	<i>domu</i>	

although there are counterexamples, such as Asg *synŭ*, Lsg *synu*, and Dsg *domovi*.

- 14 Here I posit abductive/deductive reasoning for morphological change, based on Andersen 1973.
- 15 Cf. the definitions of nominative and dative given for Czech and Russian in Janda 1993: 43–56, where the nominative is minimally a FIGURE ("entity") distinct from the GROUND ("setting"), but more commonly an agent, and the dative is characterized as having potential agency or possession of a sphere of control; similar case definitions appear in Smith 1985. Bachman 1980 demonstrates that datives in certain constructions in Russian pass most syntactic tests for subjecthood, and labels these "subjective datives," with demonstrable affinities to true subjects (nominatives). In a statistical analysis Greenberg (1974: 24) found a high correlation between the noun classes he terms "personal, common, individual" and the nominative and dative cases, and concludes that this is consistent with Jakobson's specification of the nominative and dative as [+animate]. The locative case has a low value for personal nouns. Again, modern languages certainly differ from Late Common Slavic, yet it is likely that the general tendency to expect an animate FIGURE in the nominative and dative, but an inanimate GROUND in the locative is fairly stable.
- 16 For more on virility in Slavic, see Janda forthcoming. Note that modern orthographical conventions of Polish obscure the origins of LCS *-i* and *-y* by spelling both letters for both original segments. In this article *-i/(-y)* designates a desinence arising from LCS *-i* and causing a change in almost every consonant which precedes it, but *-y/(-i)* designates a desinence arising from LCS *-y* causing no change in any consonant except for *k, g > k', g'* (and some *x > x'* in derived imperfectives, as in *wysłuchiwać* 'hear out'; elsewhere *x* remains hard as in *chyba* 'I daresay, probably'), here resulting from the spread of APl *-y* to the Npl. Three recent articles have been devoted to the Npl endings of Polish, namely Zieniukowa 1992, Dunaj 1992, and Saloni 1988; and substantial discussion is also found in historical and modern grammars, such as Grappin 1956, Buttler *et al.* 1971, Urbańczyk *et al.* 1984, Klemensiewicz *et al.* 1981. The use of virile Npl *-owie* and *-i/(-y)* is paralleled by syncretism in the GApl in the modern language.
- 17 The generalizations made here are not air-tight, but rather describe prominent trends. Both hard and soft stems show some use of Npl *-owie* with stems that identify neither

relatives nor high-status males, such as *przedszkolaczkowie* 'pre-schoolers' and *uczniowie* 'pupils,' but such examples are exceptions to the general rules identified here.

- 18 There are only three exceptions, all of which seem to have some explanation: *brat* 'brother' has a suppletive plural *bracia*; *kuzyn* 'cousin' is a foreign borrowing; and *siostrzeniec* 'nephew (literally 'sister's son')' contains a clear reference to a non-virile ('sister').
- 19 The use of human perceptual experience of SELF vs. OTHER to organize linguistic categories is itself a metaphor, if we follow the definition of that term given by Lakoff and Johnson (1980:5): "The essence of metaphor is understanding and experiencing one kind of thing in terms of another."
- 20 Cf. Swan 1988. The only exception to these general guidelines is *wół* 'ox' and a noun derived from it, *bawół* 'buffalo,' both of which have preserved the old *ũ*-stem Gsg *-u*, in spite of that fact that they are animate nouns. In order to create the GAsg syncretism characteristic of animate nouns, these substantives have spread their Gsg *-u* to the Asg; thus 'I have an ox' can be rendered in Polish as *mam wołu*. Polish is the only Slavic language that has preserved Gsg *-u* for LCS *volũ* 'ox.'
- 21 Cf. Wierzbicka (1980: 57), who gives the following metalinguistic glosses for diminutives: "I'm thinking of this X as something small. I feel good feelings towards this X as one does towards something small."
- 22 Days of the week are not included here (cf. *czwartku* 'Thursday' Gsg), perhaps because they do not require an internal numerical structure like months do; we know that a day has passed because we see the sun in the same place again, but to know that a month has passed, we must count days since our months are no longer based on lunar phases.
- 23 According to Urbańczyk *et al.* 1984: 253, soft stem masculine inanimate nouns take Gsg *-a* as a rule, although there are exceptions.
- 24 Note that all of the nouns on our "likely" list except *ledũ* 'ice' show this type of morphological association with a verb.
- 25 An article devoted to this topic, Cummins 1995, has appeared in SEEJ since the present article was submitted. I concur with the conclusions reached by Cummins, which are very similar to the conclusions proposed here.
- 26 Although this distribution is superficially similar to that observed for the Gsg *-u* vs. *-a*, and indeed there is significant overlap in terms of the actual lexical items involved (approximately three-fourths of the nouns that admit only *-ę* in the Lsg also admit only *-a* in the Gsg), both the history and function of this variation differ significantly from Gsg *-u* vs. *-a*.

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Appendix 1: "questionable" ū-stem nouns

<i>mqži</i>	'man'	<i>ilū</i>	'clay'	<i>udū</i>	'limb'
<i>sōdū</i>	'court; vessel'	<i>gadū</i>	'vermin'	<i>židovinū</i>	'Jew'
<i>popū</i>	'priest'	<i>golsū</i>	'voice'	<i>duxū</i>	'spirit'
<i>vrači</i>	'physician'	<i>zmijī</i>	'serpent'	<i>znojī</i>	'heat'
<i>dlūgū</i>	'debt'	<i>nizū</i>	'down'	<i>vūnū</i>	'out'
<i>kortū</i>	'time'	<i>soldū</i>	'malt'	<i>bergū</i>	'bank'
<i>bokū</i>	'side'	<i>borū</i>	'pine grove'	<i>brodū</i>	'ford'
<i>časū</i>	'time'	<i>godū</i>	'time'	<i>gradū</i>	'hail'
<i>kūrmū</i>	'food'	<i>lēšū</i>	'forest'	<i>listū</i>	'leaf'
<i>lōgū</i>	'grove'	<i>mostū</i>	'bridge'	<i>mēxū</i>	'fur'
<i>nosū</i>	'nose'	<i>pelnū</i>	'booty'	<i>pirū</i>	'feast'
<i>prūtū</i>	'flax'	<i>pūlkū</i>	'regiment'	<i>orstū</i>	'growth'
<i>snēgū</i>	'snow'	<i>svētū</i>	'light'	<i>tūrgū</i>	'market'
<i>slēdū</i>	'track'	<i>plodū</i>	'fruit'	<i>šilkū</i>	'silk'
<i>bobrū</i>	'beaver'				

Appendix 2: The modern distribution of *ǔ*-stem endings in the Slavic languages

Much detail has been suppressed in these tables; they indicate only whether the ending in question has been productive or not and what the modern continuation of the ending is, regardless of what classes of nouns take the ending or how it has evolved. Lack of a mark indicates that the ending did not enjoy productivity. Parentheses enclose endings of very limited productivity. "NA" appears under Macedonian and Bulgarian for all cases except Nsg, Vsg, and Npl because these languages have lost substantival declension, so the quest for *ǔ*-stem remnants is "not applicable." Slovak, Belarusian, Russian, and Slovene have lost the vocative, so "NA" appears in those columns as well. In Nsg and Asg the mark \emptyset stands for a zero, since final $-\ddot{u} > \emptyset$ in all Slavic. In some cases a number of similar endings are listed; usually this is because original *ǔ*-stem endings have developed "soft" variants. In Belarusian orthographic representation of unstressed vowels causes further proliferation of modern spellings of *ǔ*-stem endings. A semicolon indicates that there are two morphemes continuing the *ǔ*-stem antecedent in two distinct roles. Since North Slavic differs significantly from South Slavic in the treatment of *ǔ*-stem reflexes, the two areas are separated in the tables. North Slavic is to the left, with the languages ordered West to East (and the North-South dimension removed). South Slavic is to the right, with languages ordered from Northwest to Southeast. Thus the tables can be viewed as schematic maps. Above each table is a citation of the relevant case ending in its LCS form. The *ǔ*-stem dual endings NAVdu $-y$, GLdu $-ovu$, and DIdu $-\ddot{u}ma$ have not been included in the above tables because they have no direct descendants in the modern Slavic languages.

Nsg $-\ddot{u}$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset

Gsg $-u$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
$-ul-iu$	$-u$	$-u$	$-ul-ju$	$-ul-ju$	$-ul-ju$	$(-u)$		NA	NA

Dsg $-ovi$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
$-owi/$ $-iowi$	$-ovi$	$-ovi$	$-ovi/$ $-evil/$ $-jevi$					NA	NA

Asg is equivalent to o -stem ending $-\ddot{u}$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	\emptyset	NA	NA

Isg $-\ddot{u}m\ddot{i}$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
$-em/$ $-iem$	$-em$	$-om$	$-om/$ $-em/$ $-jem$	$-om/$ $-am/$ $-em$	$-om/$ $-em$			NA	NA

Lsg $-u$:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
$-ul-iu$	$-ul-i$	$-u$	$-ul-ju$	$-ul-ju$	$-ul-ju$	$-u$	$-u$	NA	NA

Vsg *-u*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
<i>-ul-iu</i>	<i>-ul-i</i>	NA	<i>-u/-ju</i>	NA	NA	NA	<i>-u</i>	<i>-u</i>	<i>-u</i>

Npl *-ove*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
<i>-owieł</i>	<i>-ové</i> ;	<i>-ovia</i> ;				<i>-ovi</i>	<i>-ovil</i>	<i>-ovil</i>	<i>-ovel</i>
<i>-iowie</i>	<i>-ovi</i>	<i>-ovci</i>					<i>-evi</i>	<i>-evi</i> ,	<i>-eve</i> ,
								<i>-ovci</i>	<i>-ovcel</i>
								<i>-evci</i>	<i>-ovci</i> ;
									<i>-ovi</i>

Gpl *-ovŭ*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
<i>-ówł</i>	<i>-ů</i>	<i>-ov</i>	<i>-iv/-jiv</i>	<i>-oŭł</i>	<i>-ov/-ev</i>	<i>-ov/ev</i>		NA	NA
<i>-iówł</i>				<i>-aŭł</i>					
				<i>-ěŭł</i>					
				<i>-jaŭł</i>					

Dpl *-ŭmŭ*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
		<i>-om</i>						NA	NA

Apl is equivalent to *o*-stem *-y*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
<i>-ył/i</i>	<i>-y</i>	<i>-y</i>	<i>-ył/i</i>	<i>-ył/i</i>	<i>-ył/i</i>			NA	NA

Ipl *-ŭmi*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
		<i>-mi</i>				<i>(-mi)</i>		NA	NA

Lpl *-ŭxŭ*:

Pol	Cz	Slk	Ukr	BR	Russ	Sln	SC	Mac	Blg
	<i>-ech</i>	<i>-och</i>						NA	NA