

**CURRENT ISSUES IN  
LINGUISTIC THEORY | 150**

**Lexical and Syntactical  
Constructions and the Construction  
of Meaning**

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and Eve Sweetser

**Offprint**

**JOHN BENJAMINS PUBLISHING COMPANY**

## Implementation of the FIGURE-GROUND Distinction in Polish

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In the ninth century, two seemingly unrelated events were taking place in Slavic morphology. One was the rise of animacy, then in its infancy, and the other was the death throes of the old *ǫ*-stem paradigm. Slavs began to substitute the genitive singular ending for the accusative singular in the declension of masculine animate nouns of the *o*-stem paradigm (by far the dominant paradigm for masculine nouns) at the close of the common Slavic period. At the same time, the *ǫ*-stem paradigm was foundering. Only six to twelve nouns can be positively identified as *ǫ*-stems, and even these were in the process of being absorbed by the *o*-stem paradigm. As I will argue in this article, both animacy and *ǫ*-stem endings contributed to the elaboration of FIGURE-GROUND distinctions in Slavic. The grammatical marking of animacy is itself a type of FIGURE-GROUND distinction, since it sets animate beings (the entities most likely to serve as FIGURES) apart from all other nominal referents. The development of this one distinction apparently paved the way for other, similar distinctions to be made. When the old *ǫ*-stem paradigm collapsed, it yielded a valuable resource of "extra" nominal morphemes, which were recycled to articulate a whole system of distinctions, here identified as the FIGURE-GROUND scale. Rather than being lost, the marginalized morphemes of the *ǫ*-stem paradigm were productively extended to mark FIGURES and GROUNDS. This article will focus on the way in which these distinctions have evolved in Polish.<sup>1</sup>

This is an offprint from:

Marjolijn Verspoor, Kee Dong Lee and Eve Sweetser (eds)  
*Lexical and Syntactical Constructions and the Construction of Meaning*  
John Benjamins Publishing Company  
Amsterdam/Philadelphia  
1997

(Published as Vol. 150 of the series  
CURRENT ISSUES IN LINGUISTIC THEORY,  
ISSN 0304-0763)

ISBN 90 272 3654 2 (Hb; Eur.) / 1-55619-865-5 (Hb; US)  
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### 1. The FIGURE-GROUND Scale

Our perception of FIGURE-GROUND is a direct result of our physical embodiment (Johnson 1987: 124): "Our word radiates out from *our bodies* as perceptual centers ... Our perceptual space defines a domain of macroscopic objects that reside at varying distances from us ... At a certain distance from this perceptual center our world 'fades off' into a perceptual horizon which no longer presents us with discrete objects." FIGURE-GROUND as conceived in the present article is actually a continuum that integrates concepts of CENTER-PERIPHERY, SELF-OTHER and UP-DOWN (the latter with respect to authority and status),<sup>2</sup> and presents many possibilities for distinction. This scale ranges from the SELF, as ultimate FIGURE, to other HUMAN BEINGS, to ANIMALS, to DISCRETE, COUNTABLE CONCRETE OBJECTS, to other COUNTABLE OBJECTS, to PARTS OF OBJECTS, to MASSES and COLLECTIVES, to LANDSCAPE FEATURES, and ultimately to AMBIENT INTANGIBLES such as weather,

sounds, social institutions, and abstractions. Polish has evolved a particularly rich array of FIGURE-GROUND distinctions, as displayed in Table 1. The ending indicated to the left of the vertical line serves for all items at that point or higher in the hierarchy of distinctions, whereas the ending indicated to the right serves for all items at that point or lower.<sup>3</sup>

Table 1. FIGURE-GROUND distinctions in masc. nominal paradigms in Polish (*ũ*-stem endings are italicised)

kinship terms	other names	low-status viriles <sup>4</sup>	animals	discrete countable concrete inanimate objects	other objects masses landscape intangibles
Npl -owie	Npl -i	Npl -y		Asg -a	Gsg -u
	GApI	Apl		Gsg -a	

## 2. History of *ũ*-stem Endings and FIGURE-GROUND

Tables 2 and 3 show the development of singular and plural *ũ*-stem endings from IndoEuropean to the present day,<sup>5</sup> as compared with those of the *o*-stem paradigm, which absorbed the remaining *ũ*-stem nouns and became the paradigm par excellence of masculine nouns.

Table 2. The *ũ*-stem paradigm: IndoEuropean > Common Slavic > Polish (case endings that survive in modern Polish are boldfaced)

	Singular	Plural
Nominative	-us > <i>-ũ</i> > -ø	-oues > -ove > -owie
Genitive	-ous > -u > -u	-ouom > -ovũ > -ów
Dative	-ouei > -ovi > -owi	-umus > -ũmũ > (lost)
Accusative	-um > <i>-ũ</i> > -ø	-uns > -y > -y/(-i)
Instrumental	-umi > -ũmĩ > -cm	-um s > -ũmi > (lost)
Locative	-õu > -u > -u	-usu > -ĩũũ > (lost)
Vocative	-ou > -u > -u	= Npl

Table 3. The *o*-stem paradigm, which absorbed *ũ*-stem nouns (case endings that are syncretic with *ũ*-stem endings are boldfaced):

	Singular	Plural
Nominative	-os (> -o ?) > <i>-ũ</i> > -ø	-oi > -i > -i/(-y)
Genitive	-õd > -a > -a	-õm > -ũ > -ø
Dative	-õ (> -ou ?) > -u	-omus > -omũ > -om
Accusative	-om > <i>-ũ</i> > -ø	-ons > -y > -y/(-i)
Instrumental	-omi > -omĩ > (lost)	-õs > -y > (lost)
Locative	-oi > -ẽ > -e	-oisu > -ẽũũ > (lost)
Vocative	-e > -e > -e	= Npl

The endings signalled by *-i* and *-y* are distinct, since *i* occasions morphophonemic alternations that *y* does not, but they have since merged phonemically and modern Polish orthography has redistributed the two vowel letters.<sup>6</sup> In the remainder of the article etymological \**i* will be signalled by *-i/(-y)* (the *o*-stem Npl ending), and etymological *y* will be signalled by *-y/(-i)* (the Apl ending form of both paradigms). Note that there is very little overlap between the two paradigms, really only in the Asg and Apl, with overlap in Nsg coming a bit later (this might be a borrowing from *ũ*-stem to *o*-stem, but the origin is not entirely clear).<sup>7</sup> Notice also that most *ũ*-stem endings survive to modern Polish; in fact, in neighboring Slovak all these *ũ*-stem endings are still with us.

The old *ũ*-stem endings were spread among *o*-stem nouns in three ways:

- early and completely either to all masculine hard stem nouns, or to a phonologically definable subset thereof:  
Isg -em, Gpl -ów, Vsg -u
- initially to FIGURES or GROUNDS, but then to all masculine hard stem nouns, or to a phonologically definable subset thereof:  
Lsg -u, Dsg -owi
- to signal  
FIGURES: Npl -owie  
-or-  
GROUNDS: Gsg -u.

This article will focus on the third type of extension.

It seems odd to state that the *ũ*-stem endings have been mobilized for the cause of both FIGURES and GROUNDS, but if we take a look at the meanings of the original *ũ*-stem nouns, we understand why this was the case. There were very few such nouns, which is why their paradigm became marginal. Scholars all agree on only six words as original *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 most scholars:<sup>8</sup>

<i>ãnũ</i>	'rank'	<i>stanũ</i>	'camp'
<i>ledũ</i>	'ice'	<i>sadũ</i>	'plant; tree; forest'
<i>darũ</i>	'gift'	<i>ãdũ</i>	'poison'

These original *ũ*-stem nouns can be neatly gathered into two groups: clear FIGURES and clear GROUNDS.

FIGURES: *synũ* 'son,' *volũ* 'ox'

GROUND: substances and collectives: *medũ* 'honey,' *ledũ* 'ice,'  
*ãdũ* 'poison,' *sadũ* 'plant; tree; forest'

locations: *vĩrxũ* 'top,' *domũ* 'house,' *stanũ* 'camp'

abstractions: *polũ* 'half,' *ãnũ* 'rank,' *darũ* 'gift'

No original *ũ*-stem nouns have meanings intermediate between FIGURE and GROUND; discrete, countable concrete objects are missing from the inventory.

Given the clustering of the meanings of *ũ*-stem nouns at the ends of the scale, the "extra" morphology they provided could be associated either with FIGURE or with GROUND. The specific association of each case ending was determined, it seems, by the markedness values of FIGURE and GROUND in relation to the semantics of the given case. The *ũ*-stem endings sought positions that maximalized markedness alignment.<sup>9</sup> All other things being equal, FIGURE is marked, GROUND unmarked. Here are the relevant correlations:

- *Nominative* is case of the subject, therefore FIGURE - *Npl -owie* signals FIGURES.
- *Dative* is case of the potential subject,<sup>10</sup> therefore FIGURE - *Dsg -owi* initially signals FIGURES, then spreads to nearly all masculine nouns.
- *Locative* is case of location and attendant circumstance, therefore GROUND - *Lsg -u* initially signals GROUNDS, then spreads to all masculine and neuter nouns with stems ending in a historically soft consonant or velar.
- *Genitive* case is unaffected by the FIGURE-GROUND scale and GROUND has default unmarked value - *Gsg -u* signals GROUNDS.

### 3. Polish Npl *-owie* (as opposed to Npl *-i/(-y)* and *-y/(-i)*)<sup>11</sup>

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, and as a result there are three Npl desinences for masculine nouns: *-owie*, *-i/(-y)*, and *-y/(-i)*. Virility marks the top end of the FIGURE-GROUND scale; it indicates the SELF and other HUMANS. 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 (ANIMALS, females, and inanimate OBJECTS).

If we examine the groups of nouns for which Npl *-owie* is obligatory, we see a clear relationship of similarity to the (idealized) SELF. The SELF is the prototypical FIGURE: a specific, unique, named being identified with the speaker/hearer's ego (ideally if not really a human male). It follows that those who are most like the SELF are (male) blood relatives, literally the closest "copies" of the SELF. The fact that one of the most important male kinship terms is an original *ũ*-stem noun, namely *synũ* 'son,' was no doubt instrumental in motivating the extension of Npl *-owie*. Indeed, virtually all Polish masculine kinship terms require *-owie*. Family members, in the plural, are grouped according to family names, which also have obligatory Npl *-owie*, and the further extension of this ending to given names is also well-motivated. Families can be organized into larger groups, such as clans, tribes, and nations and the nouns that name specific ethnic groupings of this type may also have *-owie*, although other factors may come into play. For names of nations, for example, Npl *-owie* is more likely when the stem is monosyllabic, as in *Bałowie* 'Balts'.<sup>12</sup>

The other relevant parameter for the semantic segregation of viriles in Polish is relative salience, which is greatest for persons of high status and lowest for marginalized or maligned members of the population. For the most prestigious titles, Npl *-owie* is virtually required, as in *król* 'king,' Npl *królowie*, *generał* 'general,' Npl *generałowie*. Npl *-owie* is the expected ending for many professions, such as *geograf* 'geographer,' Npl *geografowie*. For many nouns, both *-i/(-y)* and *-owie* are used, and the latter has an honorific connotation, as in *psycholog* 'psychologist', Npl *psychologzy/psychologowie*, *profesor* 'professor', Npl *profesorzy/profesorowie*.

For pejorative nouns with virile reference, the use of Npl *-owie* and even the otherwise neutral *-i/(-y)* are marked (ironic), and *-y/(-i)* is expected (cf. Dunaj 1992, Saloni 1988, and Zieniukowa 1992). This signals both a distancing of the SELF from such "undesirables" and a demotion of these referential viriles to the status of ANIMALS, females, and inanimate OBJECTS (since *-y/(-i)* is the Npl ending used with all non-viriles). Typical candidates for the use of the deprecatory form in *-y/(-i)* are nouns like *bękart* 'bastard,' Npl *bękarty*; *cham* 'cad,' Npl *chamy*; *koniokrad* 'horsethief,' Npl *koniokrady*. Deprecatory Npl forms are also expected

or common for certain racial, ethnic or other groups (especially if the nouns in question are derogatory): *czarnuch* 'black', Npl *czarnuchy*; *żyd* 'Jew', Npl *żydy* (non-deprecatory: *Żydzi* 'Jews'); *cygan* 'gypsy', Npl *cygany* (non-deprecatory: *cyganie*); *karzeł* 'midget; dwarf', Npl *karły*; *pedał* 'homosexual', Npl *pedały*.

Table 4 summarizes the distribution of Npl endings used with viriles in Polish. With both *-owie* and *-i/(-y)* virility is also marked on accompanying adjectival and verbal forms, as well as by the use of a genitive-accusative form in the plural. With *-y/(-i)* the corresponding non-virile forms are used. Although soft-stem nouns do not have a distinction to correspond to *-i/(-y)* vs. *-y/(-i)*, they can signal virility or demotion to non-virility in adjectival and verbal agreement and by the choice of a genitive-accusative or an accusative plural form.

Table 4. Marking of viriles in Polish

<i>-owie</i> marked, honorific (male kinship terms, families, some ethnic groups, high- status viriles)	<i>-i/(-y)</i> neutral (most other viriles)	<i>-y/(-i)</i> deprecatory (low-status, marginalized, or otherwise "undesirable" viriles)
<i>ojcowie</i> 'fathers'	<i>studenci</i> 'students'	<i>bękart</i> 'bastards'
<i>Bałtowie</i> 'Balts'	<i>autorzy</i> 'authors'	<i>chamy</i> 'cads'
<i>królowie</i> 'kings'		<i>koniokrad</i> 'horsethieves'
<i>generałowie</i> 'generals'		<i>czarnuchy</i> 'blacks'
		<i>żydy</i> 'Jews' ( <i>Żydzi</i> )
		<i>cygany</i> 'gypsies' ( <i>cyganie</i> )
		<i>karły</i> 'midgets'
		<i>pedały</i> 'homosexuals' (vulg.)

#### 4. Polish Gsg -u (as opposed to Gsg -a)

Grammars of North Slavic languages devote considerable space to discussing the use of Gsg *-u*. Buttler, Kurkowska & Satkiewicz (1971: 158) name the Gsg the most complicated problem in Polish inflection. Perhaps the most honest assessment is given by Dvoňč *et al.* (1966: 91), who confess that they cannot provide rules for use of variant Gsg endings in neighboring Slovak, and advise speakers to rely instead on their linguistic intuitions. The metaphorical nature of the FIGURE-GROUND distinction helps to explain two of the most troubling and apparently contradictory facts about Gsg *-a* vs. *-u*:

1. Native speakers have no difficulty learning, using, and agreeing on this distinction. The explanation for this provided by cognitive linguistics is that the FIGURE-GROUND distinction is exceedingly well-grounded in universal human

experience. This is an utterly natural distinction regularly perceived by human beings in their non-linguistic interaction with the world.

2. 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.

Roughly two-thirds of all masculine inanimate nouns in Polish have *-u* as either their only Gsg ending or as an alternate. 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 on this topic after sifting through 175,000 pages of literature. Although Westfal's approach is atomistic and encyclopedic, a reanalysis of the data there and in other sources (Kottum 1981, Buttler, Kurkowska and Satkiewicz 1971, Urbańczyk *et al.* 1984) yields a system of semantic associations where each member of each opposition constitutes a radial category motivated by either FIGURE or 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, as shown in Table 5.

Table 5 may look cumbersome, but only a small portion of it is pertinent to the semantics, morphology, and phonology of any given word. Also, there is a large amount of overlap in this table, for FIGURE-GROUND distinctions can be motivated by more than one factor, and though the factors are related, no one of them embraces the full range of possibilities. Yet because the whole table is ultimately derived from a single distinction it is, in an abstract sense, very simple. By recognizing the cognitive categories involved in this distinction, we can appreciate this abstract simplicity while revealing the complex infrastructure of each member of the opposition.

In Table 5, classes of nouns that are used more frequently with the given ending are listed before the > symbol, whereas items lower down on the scale are listed after. Italics mark sectors of the lexicon where both endings occur in significant numbers.

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*, whereas things of large or indeterminate size tend to use

Table 5. FIGURE-GROUND as marked by Gsg -a/-u in Polish

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

-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 the next two words, both of which mean 'sidewalk': *chodnik*, the native word, has Gsg *chodnika*, but *trotuar*, a borrowing from French, has Gsg *trotuaru*. Westfal (1956: 360-1) describes 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.

The effect of a diminutive is to suggest reduced physical size and increased emotional intimacy, both of which bring the referent closer to the SELF.<sup>13</sup> Although there are many exceptions, there is an overall tendency to prefer -a with diminu-

tives, e.g. *gwizd* 'whistle' has Gsg -u, but the diminutive *gwizdek* 'whistle blast,' has Gsg -a.

Individuation has two parameters: countability and dimensionality. "Countability" ranges from best examples to worst examples on a scale of:

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, such as *grudzień* 'December', Gsg *grudnia*; all substantive numerals, such as *tuzin* 'dozen', Gsg *tuzina*; 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 *thumok* 'bundle', Gsg *thumoka*, 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. As a rule, collectives take -u, regardless of the identity of the objects of which they are composed. Examples include *ogół* 'community', Gsg *ogółu*; *rój* 'swarm', Gsg *roju*; *drobiazg* 'small things', Gsg *drobiazgu*.

*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 *ołwuu*; *barszcz* 'beetroot soup', Gsg *barszczu*; *łój* 'tallow', Gsg *łuju*; and a large number of borrowings, such as *asfalt* 'asphalt', 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 is yet another parameter relevant to individuation. *Discrete 3-D 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 3-D 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 *łeba*; *nos* 'nose', Gsg *nosa*. Otherwise, -u is the norm: *otwór* 'opening', Gsg *otworu*; *przód* 'front part', Gsg *przodu*; *pedał* 'pedal', Gsg *pedału*.

*3-D masses, 2-D surfaces, and 1-D 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*.

0-D 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 3-D) 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 word *przystanek* 'stop, halting point', is typical here, for it admits both endings; *punkt* 'point', however, uses only *-u*, probably because of its German origin.

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 the opposition foregrounded vs. backgrounded:

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.<sup>14</sup> An example is *wąż*, which uses Gsg *węża* 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 factors such as size and familiarity playing a determining role. Thus, as we have seen above, *kosz* 'basket' is small enough to have Gsg *kosza*, but *budynek* 'building' has Gsg *budynku*.

*Landscape features*, which typically serve as locations, strongly prefer the use of *-u*, as in: *przesmyk* 'isthmus', Gsg *przesmyku*; *grzbiet* 'mountain range', Gsg *grzbietu*; *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: *przyphyw* 'incoming tide', Gsg *przyphylwu*; *wschód* 'sunrise', Gsg *wschodu*; *pożar* 'fire', Gsg *pożaru*; *szum* 'rustling', Gsg *szumu*; *gwizd* 'whistling', Gsg *gwizdu*; *światopogląd* 'world-view', Gsg *światopoglądu*; *wstręt* 'disgust', Gsg *wstrętu*.

There are a number of suffixes associated with agency (given in the table below), which, together with the diminutive suffixes, help to identify nouns with FIGURE. Most nouns that have these suffixes are animate, but when they appear on an inanimate noun, that noun will typically have Gsg *-a*.

There is a strong tendency to assign Gsg *-a* even for nouns that do not have these suffixes but merely end in a sequence of segments similar to any of these suffixes. For example, 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'.

Table 6. Suffixes that trigger Gsg *-a* in Polish

-as	-ut	-ec	-un	-or/-ór	-ur	-uk
-osz	-usz	-ysz/-isz	-arz	-erz	-acz	-al
-el	-eń	-uch	-ak	-ek	-yk/-ik	-nik

The only feature of morphology associated with Gsg *-u* is the deverbal null suffix. Since this morphological shape relates nouns to verbs, it is particularly important in the formation of nouns designating actions, processes, and states, here characterized as AMBIENT INTANGIBLES. The typical lack of a suffix, in concert with the historical preponderance of monosyllabic stems, causes monosyllabic stems to be associated with *-u*.

Semantic factors carry the greatest weight in determining Gsg *-a* vs. *-u*, with morphological and phonological factors playing only secondary and tertiary roles. The various semantic factors can, however, vary independently, producing conflict. Foreign origin can override all other factors. With very large objects size outweighs dimensionality, as in the case of buildings, which take *-u* even though they are 3-D objects of definite form: *ostróg* 'fortress', Gsg *ostrogu*; *zbor* 'church', Gsg *zboru*; *budynek* 'building', Gsg *budynku*.

Many nouns take both endings: *przypadek*, when used as the linguistic term 'grammatical case', has Gsg *przypadka*, but appears as *przypadku* when its meaning is less specific, corresponding to 'chance, coincidence'. For words that can use both endings, construal plays an important role, since the same referent named by the same speaker might be construed as a FIGURE in some utterances, but as a GROUND in others. Westfal (1956: 104-109; 359-360) states that this is quite common for items that can be variously construed as objects or as substances. A tree name such as *dąb* 'oak', for example, can refer either to an individual plant (with a Gsg of *dęba*) or to a material used for building or fuel (with a Gsg of *dębu*).<sup>15</sup>

## 5. Conclusion

The Poles and their Slavic brethren have found semantic treasure in their own morphological trash, bringing the exponents of a dead paradigm back from the brink of extinction to bear new meanings. Rather than discarding these marginal morphemes, they established them as the prototypical markers for new distinctions, facilitating analogical change. This is part two in a series of ICLA presentations. All three papers use examples of marginalized morphemes extended due to the establishment of new prototypes in the history of Slavic. The first paper was about

1sg *-m*, marginalized due to the fact that only five verbs used its paradigm. The present paper tells the story of morphemes that survived the death of their paradigm. The next paper will tell of morphemes that have survived the death of their category, namely dual number, to become productive markers of virile and other specialized plural categories. In this series of case studies I try to examine the mechanism of analogical change, demonstrating how prototypes are established and change,<sup>16</sup> and how central and then progressively more peripheral members of a category are engulfed in the analogical spread of a morpheme. Ultimately, this is a study of human cognition, of how patterns are perceived and develop over time.

## Endnotes

1. The following sources were consulted in the preparation of the data and historical commentary; these and other sources will be referred to in the text only where direct quotes or specific controversy are involved: Buttler, Kurkowska and Satkiewicz 1971, Grappin 1956, Klemensiewicz, Lehr-Splawiński and Urbańczyk 1981, Rothstein 1993, Urbańczyk *et al.* 1984. The following abbreviations are used in the text: N = nominative, G = genitive, D = dative, A = accusative, sg = singular, pl = plural.
2. I would like to thank Eve Sweetser for pointing out the fact that the grand scale of FIGURE-GROUND I have here identified for Polish is actually a combination of all of these distinctions.
3. There is one vertical line that does not correspond neatly to the breaks given in this scale, namely that separating the A sg *-a* from A sg *-o* (zero ending). This is due to the existence of what is commonly called "facultative animacy" in Polish. A small subset of masculine inanimate nouns is treated as if animate, in many instances due to a very strong association of certain objects with male human beings. This includes many brand names (some of which are homonymous with the names of men), dances, machines, cigarettes, sports, card games, and mushrooms; cf. Swan 1988.
4. "Virile" refers to male human beings as opposed to everything else.
5. The dual endings are excluded here since they are not continued in Polish.
6. The current distribution of the graphemes *i* and *y* in Polish is determined by the preceding consonant. Etymological \**i* is present in the following sequences: *bi, ci, dzi, ji, li, mi, ni, pi, si, wi, zi* (in these sequences *i* acts as a diacritic signaling palatalization or palatal status of the preceding consonant); and in *cy, czy, dzy, rzy, szy, ży*. Etymological \**y* is present in the following sequences: *by, chy, dy, gi, ki, fy, my, ny, py, ry, sy, ty, wy, zy*.
7. See Feinberg 1978 for a thorough discussion of the problems associated with the Nsg desinence of the *o*-stem paradigm.
8. The task of identifying the actual nouns that were associated with the *ũ*-stem paradigm is difficult, since there are no words that show exclusively *ũ*-stem endings in Old Church Slavonic, and there is not much agreement among scholars about the identity of these words, beyond the fact that all members of this paradigm were grammatically masculine. In preparing the lists given in the text, I have conducted a comparison of a representative sample of nine works on Common Slavic, Old Church Slavonic, and the historical grammars of various modern Slavic languages (Meillet 1965, Van Wijk 1931, Lunt 1959, Diels 1932, Vážný 1970, Šaxmatov 1957, Gorškova and Xaburgaev 1981, Unbegaun 1935, and Kernyc'kyj 1967). The six words on the first list appear in the inventories of *ũ*-stem nouns (or of nouns that take *ũ*-stem endings in the case of Lunt 1959 and Diels 1932) given by all nine sources, and can be considered "certain" *ũ*-stem nouns. The six words in the second list are cited by at least six of the nine sources, and can be considered "likely" *ũ*-stem nouns.
9. For a discussion of markedness alignment in particular and of the nature of markedness and its explication in the framework of cognitive grammar, see Janda (1995).
10. The essential role of potential subjecthood in the semantics of the dative case has been argued at length in Janda (1993). Native speakers of Slavic languages reject sentences like 'Mary-nominative gave table-dative flowers-accusative'. Inanimate nouns such as 'table' (and in some sentences, non-human nouns as well) are unable to receive dative marking in such constructions because they are unable to perform any further action in response; they lack potential subjecthood. Cf. also Wierzbicka (1986), which mentions this phenomenon with specific reference to Polish.
11. Remarks in this section are largely confined to hard-stem masculine nouns with a zero ending or *-a* in the Nsg. Soft-stem nouns can use Npl *-owie*, and the motivations are exactly the same as those outlined here for hard stems. However, there is no distinction to correspond to the virile *-i/(-y)* vs. non-virile *-y/(-i)*; soft-stem nouns employ Npl *-e* for both.
12. Note that all of the original *ũ*-stem nouns that are generally agreed on (those presented in 2.0) have monosyllabic stems and become monosyllabic in the Nsg when final *-ũ* is dropped during the "fall of the jers" (loss of *ũ, ı* in some positions) at the close of the Common Slavic period. Monosyllabic stem shape has served as a contributing factor in the spread of *ũ*-stem endings throughout Slavic; cf. its role in spreading Gsg *-u* discussed in 4.
13. Cf. Wierzbicka's (1980: 57) metalinguistic gloss for diminutives: "I'm thinking of this X as something small. I feel good feelings towards this X as one does towards something small."
14. This set of motivations for facultative animacy was suggested on the basis of Russian and Czech data in Frarie 1992. A comparison of that data with Polish data indicates that the same factors are motivating the grammatical animizing of inanimate objects in this language as well.
15. This sort of variation is of course not unique to Polish; for a related phenomenon in German, cf. Smith 1987 and 1992.
16. These and other case studies are gathered together in a monograph on analogical change: Janda (1996). There I argue that the reanalysis of prototypes and of cognitive categories that motivates analogical change is facilitated by the process identified as "blending" by Fauconnier and Turner (forthcoming) and as "abductive and deductive change" by Andersen (1973).

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