

On base transparency and productivity: Polish adjectivizing suffixes

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Paradigm Uniformity (PU) is defined as a special case of phonological opacity “in which the triggering or blocking context for a phonological process is found in a paradigmatically related word” (Kenstowicz 2005: 145). A classic example of PU is the pair of English words *compensation* and *condensation*. Early generative accounts handled PU effects by reference to the phonological cycle (Chomsky and Halle 1968). In more recent years, cyclic accounts have been replaced with accounts that derive PU effects by directly referring to relations that obtain between output forms. This mechanism has been particularly successful in OT accounts employing Output-Output constraints (e.g. Benua 1997, Kenstowicz 1996, 2005, Kraska-Szlenk 2003). The general idea is that words that stand in a morphological relation by virtue of sharing a base form a network of possible phonological influences (Kenstowicz 2005). An effect of PU is the maximization of structural identity in morphologically related forms. When the base is an independently occurring word, such relations can be formalized as the BASE-IDENTITY constraint (Kenstowicz 1996).

I analyze the distribution of certain adjectivizing suffixes in novel and rare words in Polish and argue that their expansiveness is driven by the preference for transparent bases. Type and token frequency are also taken into consideration in the proposed OT analysis. In the first part, I focus on suffixes *-ow-y*, *-sk-i*, *-y*, *-n-y* and *-owat-y*, of which the suffix *-ow-y* seems to be the most productive. It is argued that one of the main factors that determine the choice of the suffix is BASE-IDENTITY.

(1)	<i>Base Noun</i>	<i>Adjective</i>	
	a. <i>betonia</i> [ʒ] ‘concreter’	<i>betonia</i> [r]-sk-i	
	<i>lewa</i> [k] ‘leftist’	<i>lewa</i> [∅]-ck-i	consonantal
	<i>krzywi</i> [ts]-a ‘rickets’	<i>krzywi</i> [ʧ]-n-y	alternations
	<i>obrób</i> [k]-a ‘processing’	<i>obrób</i> [ʧ]-y	
	b. <i>sta</i> [ʒ] ‘internship’	<i>sta</i> [ʒ]-ow-y	
	<i>nylo</i> [n] ‘nylon’	<i>nylo</i> [n]-ow-y	no alternations
	<i>pikni</i> [k] ‘picnic’	<i>pikni</i> [k]-ow-y	

Many adjectives with suffixes that could potentially lead to mutations of stem-final consonants fluctuate with adjectives formed with *-ow-y*.

(2)	<i>Base Noun</i>	<i>Adj. in -n-y, -y</i>	<i>Adj. in -ow-y</i>
	a. <i>krzywi</i> [ts]-a ‘rickets’	<i>krzywi</i> [ʧ]-n-y	<i>krzywi</i> [ts]-ow-y
	b. <i>martwi</i> [ts]-a ‘necrosis’	<i>martwi</i> [ʧ]-y	<i>martwi</i> [ts]-ow-y
	c. <i>próchni</i> [ts]-a ‘dental caries’	<i>próchni</i> [ʧ]-y	<i>próchni</i> [ts]-ow-y
		<i>próchni</i> [ʧ]-n-y	

It appears that some adjectives in *-n-y* and *-y* are being replaced with forms with *-ow-y*. The opposite tendency, i.e. replacing adjectives in *-ow-y* with forms in *-y* or *-n-y*, is not attested, e.g. *mglawi*[ts]-ow-y (< *mglawi*[ts]-a ‘nebula’) **mglawi*[ʧ]-y, **mglawi*[ʧ]-n-y. Type frequency falls short of explaining the preference for *-ow-y* in adjectives derived from nouns in [...its], as shown in (3).

(3)	Number of adjectives in <i>-i</i> [ʧ]-n-y, <i>-i</i> [ʧ]-y and <i>-i</i> [ts]-ow-y		
	<i>-i</i> [ʧ]-n-y	<i>-i</i> [ʧ]-y	<i>-i</i> [ts]-ow-y
	28	72	55

I use source-oriented schemas to represent various ways of forming adjectives. The type frequency of each of such schemas is reflected in its relative ranking, as in (4).

(4)	Input: martwi[ts]-a	BASE IDENT	[[...its]a] ↔ [[...iɸ]i]	[[...its]a] ↔ [[[...its]ɔv]i]	[[...its]a] ↔ [[[...iɸ]n]i]
	a. martwi[ɸ]-y (**)	*!		*	*
	b. martwi[ts]-ow-y (*)		*		*
	c. martwi[ɸ]-n-y (-)	*!	*	*	

In (4), the candidate with a transparent base prevails. (**), (**), (*) and (-) mark the strength of representations, gauged by token frequency (based on the frequency of occurrence in the National Corpus of Polish). In the case of better entrenched words, strength of representations prevails over BASE-IDENTITY, giving rise to three vacillating forms, e.g. *próchni*[ɸ]-n-y, *próchni*[ɸ]-y and *próchni*[ts]-ow-y.

In the second part, I examine more closely the suffix *-sk-i/-ck-i*, which potentially introduces mutations of base-final consonants. What is particularly interesting is that its usage in novel formations is often accompanied by intermorphs: *-ań-*, *-ij-/-yj-* and *-ow-*.

(5)	Base Noun	Adjective	Potential form in <i>-sk-i/-ck-i</i>
	Maro[k]-o ‘Morocco’	maro[k]-ań-sk-i	*maro[∅]-ck-i
	Mona[k]-o ‘Monaco’	mona[k]-ij-sk-i	*mona[∅]-ck-i
	marszałe[k] ‘marshal’	marszał[k]-ow-sk-i	*marszał[∅]-ck-i
	szpie[g] ‘spy’	szpie[g]-ow-sk-i	*szpie[∅]-sk-i

Intermorphs arise through *morphological absorption* (M. Kruszewski). As in the case discussed above, type frequency fails to explain the preference for intermorphs in novel and rare words. Adjectives without intermorphs greatly outnumber those with intermorphs. In the proposed OT analysis, the expansiveness of intermorphs is explained in terms of the enhancement of base transparency.

In short, it is shown that BASE-IDENTITY interacts with the strength of morphological patterns (type frequency) and representations (token frequency). This competition is represented in terms of ranked Output-Output constraints. The lack of semantic, phonological and morphological restrictions also increases the chances of a suffix being used productively.

Selected references

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