

Russian palatalization in Stratal OT: morphology and [back]

This paper undertakes an account of Russian palatalization within Kiparsky's Stratal OT (Kiparsky 2000, in press). Drawing on the recent work on Russian (e.g. Rubach 2000, Padgett 1999, 2001, Plapp 1996), I provide a unified account of Russian palatalization and its interaction with morphology--a task which has not been pursued in recent generative literature.

The central problem is the following: CV sequences in which the vowel and the consonant do not agree in the value of the feature [back] are repaired in a variety of ways--by Fronting, Surface Palatalization, or Velar Palatalization, to name a few (Rubach 2000). For example, the nominative plural suffix appears as [i] or [y], depending on the palatality of the stem-final consonant (1). Rubach analyzes this as fronting of an underlying /y/ after [-back] consonants. Some suffixes, e.g. the feminine [-yn¹a], behave in the opposite way in that the backness of the vowel remains intact, while the palatality of the stem-final consonant changes to agree with it (2). Rubach's system cannot account for the behavior of such suffixes. Similarly, the vowel [e] sometimes palatalizes the stem-final consonant, as in the locative singular (3), and sometimes the sequence /Ce/ remains intact, e.g. across the preposition-word boundary (4). Accounting for Russian palatalization largely amounts to providing a non-stipulative explanation for which repair strategy is used for which sequence. In order to account for these facts, it is necessary to outline an analysis of Russian morphology.

In my analysis I argue for a distinction between stem level and word level affixes. Russian suffixes behave differently with respect to several properties, such as conditioning of Velar and Coronal Palatalizations, and permissibility of a floating [-back] feature. The key here is that these properties are not distributed randomly, but cluster together, indicating a bipartite division of the suffixes into those which make stems and feed the stem level phonology and those which make words and feed the word level phonology. Evidence from affix ordering, e.g. the fact that suffixes which condition Velar Palatalization never appear outside of suffixes which do not, supports this division. Verbal inflection and some derivational suffixes fall into the stem level class, while the word level class includes nominal inflection and the remaining derivational suffixes.

Next, I determine the ranking of relevant phonological constraints at each stratum, and show how the grammar accounts for the distribution and alternation of [back]. Essentially, vowel faithfulness is ranked high at the stem level, while consonant faithfulness is ranked high at the word level. This move takes care of both the alternations at each level and the distributional pattern (e.g. no suffixes with floating [-back] at the word level). More specifically, since the nominative plural [y] ~ [i] and the feminine [yn¹a] belong to different strata (the word and stem levels, respectively), the difference in their behavior is due to ranking of phonological constraints at those levels. Likewise, the behavior of [e] is predicted by the same ranking, coupled with a constraint against backing [e] as a possible repair strategy for /Ce/ sequences.

In addition, this paper sheds light on the problem of derived environment effects (DEE) in OT. I pursue an underspecification approach, due to Inkelas 1998 and, in a derivational framework, to Kiparsky 1993, and weigh it against alternatives such as Constraint Conjunction (Lubowicz 1998) and Comparative Markedness (McCarthy 2002). In this approach, the ranking $\text{MAX(F)} \gg \text{markedness} \gg \text{DEP(F)}$ produces DEE in environments where the value of the feature [F] is underspecified. I argue that although by Richness of the Base any segment can be underspecified, the effects of underspecification can only have an effect in an environment phonologically local to the affix (the stem-final consonant in the Russian case). Phonological locality, determined on independent grounds for each process, is what constitutes the derived nature of the environment. Compared to other approaches to DEE, this is a non-stipulative account, in which the desired effect follows from very general principles of the grammar.

Examples

(1)	<i>stem</i>	<i>nom.pl.</i>	<i>gloss</i>	
	stran-	strany	'country'	
	ryb-	ryby	'fish'	
	zeml'-	zeml'i	'land'	
	kon'-	kon'i	'horse'	
(2)	<i>stem</i>	<i>feminine</i>	<i>gloss</i>	
	bar-	baryn'a	'mistress'	
	gosudar'-	gosudaryn'a	'queen'	
(3)	<i>stem</i>	<i>loc.sg.</i>	<i>gloss</i>	
	stran-	stran'e	'country'	
	ryb-	ryb'e	'fish'	
	zeml'-	zeml'e	'land'	
	kon'-	kon'e	'horse'	
(4)	<i>citation form</i>	<i>gloss</i>	<i>phrase</i>	<i>gloss</i>
	eto	'this'	obetom	'about this'
	eksport	'export'	veksport	'to export'

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