

## An OT analysis of the Russian imperative

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This paper examines the phonological structure of the Russian imperative and demonstrates that the relevant facts can be successfully analyzed in the framework of Optimality Theory (Prince and Smolensky 1993/2004, McCarthy and Prince 1995). Though Russian has been extensively discussed in the generative literature, some issues related to the phonological structure of the imperative have not been addressed in the past. It should be noted that there is a considerable amount of generative studies devoted to the Polish imperative carried out in a rule-based framework (Gussmann 1980, Rubach 1984, Bethin 1987) as well as in OT (Rubach and Booij 2001). However, I will demonstrate that the facts of Russian are different from what is found in Polish and, therefore, the analysis developed for Polish cannot be mechanically employed in dealing with the Russian data.

In Russian, the surface representation of the imperative ending is [i], for example *vez+i* ‘drive’, *krikn+i* ‘shout’. In some words, the ending is not manifested on the surface, for instance *brós* ‘throw’, *č’itáj* ‘read’. The descriptive generalization, which goes back to Jakobson (1948), is that the ending *-i* appears after stem final consonantal clusters (e.g. *jézd+i* ‘drive’) or after a stem with a removable accent (e.g. *sid+i* ‘sit’).

As the Russian imperative ending exhibits alternations with zero, I assume, following Gussmann’s (1980) and Rubach’s (1984) analyses of the imperative in Polish, that *-i* is a yer. Yers are standardly analyzed as underlying weightless melodies, which, unless syllabified, do not surface phonetically (Rubach 1986). In the moraic theory adopted in this paper, the surface realization of a yer entails the addition of a mora. In terms of OT, yer vocalization comes at the cost of violating  $DEP_{\mu}$  (‘Do not insert moras’), while non-realization incurs a violation of  $MAX_{Seg}$  (‘Do not delete segments’). This paper demonstrates that the vocalization of the imperative suffix in words such as *vez+i* ‘drive’ and *krikn+i* ‘shout’ is due to an interplay of these faithfulness constraints with several markedness constraints.

Russian is similar to Polish in that the imperative suffix occurs after clusters of consonants in both languages. But, while the Polish ending *-ij* is found after clusters with rising sonority (compare *klepnij* [pn]‘pat’ and *jezdź* [çtç] ‘drive’), the Russian imperative ending surfaces after all kinds of consonantal sequences (*krikn*i** [kn] ‘shout’, *jézd*i** [zd] ‘drive’, *pórt*i** [rt] ‘spoil’). I will argue that, unlike Polish, in which the ending *-ij* is added to avoid a sonority violation, Russian vocalizes the underlying yer after stem final clusters in compliance with the syllabic markedness constraint  $*COMPLEX_{Coda}$ . However, the existence of verbs which allow variant forms in the imperative (*pórti/pórt* ‘spoil’, *čísti/číst* ‘clean’) points to the fact that sonority considerations also play an active role in the formation of the Russian imperative. I will demonstrate that the variation is possible only when the cluster has a falling sonority profile. As for the appearance of *-i* in words such as *sid+i* ‘sit’, I assume that the surface realization of the underlying yer after stems that cannot receive stress is driven by  $UNSTRESSABLE\ STEM$  (‘Stems lexically specified as [-stressed] cannot bear stress’).

Another issue to be addressed in this paper concerns the quality of the stem-final consonant in the imperative. Namely, a set of imperative forms shows reflexes of Iotation, as in *pr’áč* ‘hide’ (cf. *pr’át+a+t*, inf.), whereas some verbs exhibit palatalisation, for instance

*léz* 'climb'. In terms of OT, Iotation is analyzed in terms of allomorphy (Rubach and Booij 2001). A question which remains open is whether the final consonant in forms such as *léz* 'climb' is soft underlyingly or whether it is palatalised in the course of the phonological derivation.

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