

Functional factors in contrast preservation

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Many instances of contrast development are readily and thoroughly accounted for by solely phonetically- and phonologically-based pressures on the contrasting segments. However, it has been long noticed that there is a number of cases where such accounts are not sufficient, and the explanation lies in a different part of the system. We will discuss several examples from diachronic Slavic phonology, such as compensatory lengthening (CL), vowel reduction, and palatalization, to address the functional pressures on contrast from within the inventory organization (Liljencrants and Lindblom 1972, Hall 2011), as well as the informational pressures outside of the phonological systems altogether, such as the functional load of contrast (Jakobson 1931, Wedel et al. 2013; Cohen Priva 2012), in an attempt to address the actuation problem (Weireich et al. 1968) and to construct a possible typology of functional explanations.

De Chene and Anderson (1979) have argued that independent length contrast is a necessary condition for the phonologization of vowel length through CL, which is supported by the historical development of CL in Slavic (Kavitskaya 2002, 2017). The absence of vowel reduction in Bosnian-Croatian-Serbian (BCS) has been connected to the presence of the phonologically contrastive vowel length (Lehiste and Ivić 1986, Browne 1993). Both of these cases are explained by the structure of the phonological inventory of the languages in question, which either provides a precondition for the phonologization of a contrast or prevents it.

The development of Slavic palatalization provides a case of the outside pressures on contrast development (Iskarous and Kavitskaya 2010, 2018; Kavitskaya and Wandl forthcoming, Wandl and Kavitskaya 2022). It illustrates that the functional load of the contrast as well as its integration into a correlation of plain-palatalized consonant pairs were instrumental for the preservation of the /r/ : /rʲ/ contrast in Slavic. However, the reconstructed /r/ : /rʲ/ contrast is preserved only in a few contemporary Slavic languages, such as Russian, Ukrainian, Eastern Bulgarian, and Upper and Lower Sorbian, e.g., Ru /rat/ ‘glad’ : /rʲat/ ‘row’. In other Slavic languages, it is either lost, e.g., Slovene, BCS, or preserved in a different manner, e.g., **marjā* ‘sea-gen.sg’ > Cz *mo[r̩]a*, Po *mo[ɹ]a*. We notice that this rare contrast has been preserved only in those languages that acquired additional palatalization contrasts in positions other than the jotation context. This correlation is not coincidental, and in addition to the phonetic strategies, there are functional pressures, such as both the functional load of the contrast and the structure of the consonant inventory at the time when the contrast is introduced, that are crucial for the contrast preservation.

Selected references

- Browne, Wayles. 1993. Serbo-Croat. In Bernard Comrie and Greville G. Corbett, eds., *The Slavonic Languages*. London & New York: Routledge, pp. 306–387.
- Cohen Priva, Uriel. 2012. Sign and signal: Deriving linguistic generalization from information utility. PhD dissertation, Stanford University.
- de Chene, E.B. and Stephen R. Anderson. 1979. Compensatory lengthening. *Language*, 55, 505–535.
- Hall, Daniel Currie. 2011. Phonological contrast and its phonetic enhancement: dispersedness without dispersion. *Phonology* 28: 1-54.

- Iskarous, Khalil & Darya Kavitskaya. 2010. The interaction between contrast, prosody, and coarticulation in structuring phonetic variability. *Journal of Phonetics* 38. 625-639.
- Iskarous, Khalil & Darya Kavitskaya. 2018. Sound change and the structure of synchronic variability: Phonetic and phonological factors in Slavic palatalization. *Language* 94. 43-83.
- Jakobson, Roman. 1931. Prinzipien der historischen Phonologie. *Travaux du cercle linguistique de Prague* 4. 246-267.
- Kavitskaya, Darya. 2002. *Compensatory lengthening: Phonetics, phonology, diachrony*. New York: Routledge.
- Kavitskaya, Darya. 2017. Some recent developments in Slavic phonology. *Journal of Slavic Linguistics*, 25, 389–415.
- Kavitskaya, Darya and Florian Wandl. Forthcoming. A rare contrast in Slavic: the palatalization of rhotics. *Topics in Phonological Diversity*. Language Science Press.
- Lehiste, Ilse & Pavle Ivić. 1986. Word and sentence prosody in Serbocroatian. Cambridge, Mass.: MIT Press.
- Liljencrants, Johan & Björn Lindblom. 1972. Numerical simulation of vowel quality systems: the role of perceptual contrast. *Language* 48: 839–862.
- Wandl, Florian & Darya Kavitskaya. 2022. On the reconstruction of contrastive secondary palatalization in Common Slavic. *Journal of Historical Linguistics*.
<https://doi.org/10.1075/jhl.21003.wan>
- Wedel, Andrew, Abby Kaplan & Scott Jackson. 2013. High functional load inhibits phonological loss. *Cognition* 128. 179-186.
- Weinreich, Uriel, William Labov & Marvin Herzog. 1968. Empirical foundations for a theory of language change. In Winfred P. Lehman & Yakov Malkiel, eds. *Directions for Historical Linguistics*. Austin: University of Texas Press. 95-197.