Jakobson's Generalization in Russian:
Sonorant Transparency, Feature Theory, and the Architecture of Assimilation
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This talk reexamines a long-standing controversy in phonology: how Russian sonorants behave with respect to voicing assimilation, and how this behavior should be modeled. While there is broad agreement that obstruents adopt the voicing of a following obstruent (e.g. /z-k/ → [sk], /s-g/ → [zg]), the behavior of sonorants remains disputed.

One tradition—traceable to Halle (1959) and attributed by him (p.c.) to Jakobson (who in 1956 made the claim specifically for /v/)—holds that sonorants are *transparent*: they neither undergo assimilation nor block the leftward spread of [voice] in obstruent–sonorant–obstruent sequences (e.g. /z-mk/ → [smk], /s-mg/ → [zmg]). This view, adopted by Coats & Harshenin 1971, Hayes 1984, Kiparsky 1985, Sugimoto 1992, Steriade 1995, Calabrese 1995, Es'kova 2011:154, Raimy 2011, Nelson & Baković 2024, and most recently Dedova and Krasnova 2024, has been influential in debates over contrast and underspecification, laryngeal representation, and locality.

Others (e.g. Zaliznjak 1975, Shapiro 1993, Robblee & Burton 1997, Kavitskaya 1999) claim that sonorants are *opaque*, blocking assimilation (e.g. /z-mk/ → [zmk], /s-mg/ → [smg]). A third position—advanced by Padgett 2002, Scheer 2008, Kulikov 2013, Reiss 2017, and Iosad 2018—holds that sonorants are *undergoers* of voicing assimilation (e.g., /z-mk/ → [s̥mk], /s-mg/ → [zmg]; cf. descriptive examples such as /oktʲabrʲ-skij/ 'October-adj' → [ʌktʲápr˚ʲskɨ] (Avanesov 1956:170), /kontrfors/ 'buttress' → [kontr˚fórs] (Jones & Ward 1969:190), /iz mx-a/ 'from moss' → [is̥mxa] (Shevoroshkin 1971)). Recent proponents, including Padgett, Kulikov, Reiss, and Iosad, maintain that these sonorant voicing alternations are purely *phonetic* and require no phonological explanation.

Why such divergence concerning the basic facts of Russian voicing assimilation? We identify several factors: lack of attention to regional and generational variation; very small speaker samples (several < 5); pooling across heterogeneous systems; reliance on armchair judgments or purely acoustic evidence; and differences in perceptual cue weighting.

We address these issues by presenting new phonetic data from a controlled elicitation study of relevant sequences of Russian obstruents and sonorants, recorded from speakers of varied ages and regions. By isolating individual nanosystems rather than averaging across speakers, we uncover a striking range of patterns—including rare dissimilatory systems—complementing the surprising variations reported by Drage (1968) and Kulikov (2013). The results show that transparency exists for some speakers and contexts, and cannot be dismissed as either illusory or purely phonetic. We moreover integrate articulatory evidence from Lyskawa et al. (2017) for Polish and neurolinguistic data from Schluter et al. (2017) for Russian, both suggesting that the feature responsible for voicelessness in these languages is phonologically active. We argue for a binary [± stiff vocal folds] specification (Halle & Stevens 1971), which

affords advantages in capturing Russian-specific facts (edge-/r/ devoicing, invariance of /f/, voicing dissimilation) and cross-linguistic patterns (voicelessness dissimilation in Bakairi, Bena, Ekegusii, Embu; symmetric voicing dissimilation in Moro; polarity effects in Chontal).

We conclude that these findings challenge models excluding [–voice] via underspecification and those requiring strict adjacency for feature spreading. We propose a fully specified, binary, articulatorily grounded feature system combined with a Search-and-Copy mechanism (Nevins 2010; Samuels 2011; Suhairi 2022), yielding a formally explicit and typologically plausible account of Russian voicing assimilation rules for both obstruents and sonorants.

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