

# Substitution letter effects in Russian nouns: implications for morphological decomposition

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We present a masked priming lexical decision experiment on Russian with substitution orthographic neighbors. All primes were real nouns, half of the targets were nonce nouns. Four factors were manipulated: whether the prime was a neighbor of the target (experimental vs. control conditions); whether the prime was a nominative singular (primary) form or an oblique form (Russian has six cases); whether the prime was more or less frequent than the target (we took lemma and form frequency into account); whether the substituted letter was word-final or word-medial. Target nouns were in nominative singular. Examples of prime and target pairs: *ritma* 'rhythm.GEN.SG' (from *ritm*) – *rifma* 'rhyme.NOM.SG', *golod* 'hunger.NOM.SG' – *golos* 'voice.NOM.SG', *prutom* 'stick.INS.SG' (from *prut*) – *prutol* (a nonce word).

We aimed to study the relative timing of morphological decomposition and letter position assignment in reading (several experiments addressed this problem, but mostly for derivation rather than for inflection, and only using transposition neighbors); the role of letter position for neighborhood effects (previous experiments compared substituting initial vs. non-initial letters) and the role of relative neighbor frequency (how it interacts with other factors).

Primes were presented for 500 ms (a pilot study presenting primes for 200 ms did not yield any significant effects). Neighbor primes that were more frequent than targets increased response latencies compared to control conditions, less frequent neighbor primes had the opposite effect. The priming effect was modulated by the prime form (being significant only in primary form conditions, which points to a very early morphological decomposition) and by the substituted letter position (being more pronounced for word-final letters). The latter result shows that, although word-final letters are known to be more salient, they might be less important for candidate activation during lexical processing.

**Primary authors:** SLIOUSSAR, Natalia (HSE, Moscow, & St.Petersburg State University); ALEXEEVA, Svetlana (St.Petersburg State University)

**Presenters:** SLIOUSSAR, Natalia (HSE, Moscow, & St.Petersburg State University); ALEXEEVA, Svetlana (St.Petersburg State University)

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