

## Processing Number Feature in Heritage and Native Russian Speakers

Ming Xiang

Boris Harizanov

Maria Polinsky

In this study we compare speakers' knowledge on the feature "number" between two populations: Russian native speakers and heritage Russian speakers whose native language is American English. In many languages the grammatical singular-plural marking on the noun corresponds to the conceptual singular-plural distinction as well. But Russian presents a particularly interesting mismatch between the grammatical and conceptual singular/plural distinction. In the presence of an explicit numeral, numbers 2 to 4 require a singular-genitive, rather than plural-genitive, marking on the dependent noun (1b).

- |              |                   |
|--------------|-------------------|
| (1) (a) odin | mal'čik-Ø         |
| one-NOM      | boy-NOM.SG        |
| (b) dva      | mal'čik- <b>a</b> |
| two-NOM      | boy-GEN.SG        |
| (c) devjat'  | ma'čik- <b>ov</b> |
| nine-NOM     | boy-GEN.PL        |

Taking advantage of this mismatch between grammatical and conceptual number features, we investigated the nature of number representation in both native speakers and heritage speakers through probing speakers' sensitivity to number feature violations on the head noun in the presence of explicit numerals. In the first study, speakers rated the grammatical and violation cases offline on a 1 to 7 scale. The second study used self-paced reading paradigm to get their online sensitivity to the violations. For both populations, speakers show high preference for the grammatical conditions in both the offline judgment and the online reading tasks. This suggests heritage speakers we tested have a good understanding of Russian number and case markings in this particular domain. But it is their treatment of the ungrammatical conditions that can tell us more about their representations of number. We are currently investigating whether for native speakers and heritage speakers, number marking in Russian constitutes a purely formal feature, or it has a conceptual element as well.

### Material

v xore odin	malen'kii	mal'čik-Ø/*-a/*-ov	
in choir one.NOM	little.SG.NOM	boy.SG.NOM/*SG.GEN/*PL.GEN	
v očkax stojal	vperedi vsex		
in glasses stood.3SG	in front of all		<b>(a-c, number 1)</b>

v hore tri	malen'kix	mal'čik*-Ø/-a/*-ov	
in choir three.NOM	little.PL.GEN	boy*SG.NOM/SG.GEN/*PL.GEN	
v očkax stojali	vperedi vsex		
in glasses stood.3PL	in front of all		<b>(d-f, number 2-4)</b>

v hore devjat'	malen'kih	mal'čik*-Ø/*-a/-ov	
in choir nine.NOM	little.PL.GEN	boy*SG.NOM/*SG.GEN/PL.GEN	
v očkax stojali	vperedi vsex		
in glasses stood.3PL	in front of all		<b>(g-i, number 5+)</b>

'In the choir one/three/nine boy/s in glasses stood in front of everyone.