Title: Organization of the Mental Lexicon in Second Language Learners and Heritage Speakers
         of Russian

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This paper reports the results of a study that explores how words are stored in memory and accessed in highly proficient second language (L2) learners and heritage speakers of Russian. It uses an auditory lexical decision task with priming to test two groups of highly proficient learners of Russian, late American L2 learners (N=36) and heritage speakers of Russian (N=24), and a group of adult Russian controls (N=10). L2 learners and heritage speakers were closely matched in oral proficiency. A priming experiment is a lexical decision task that presents the target stimulus (the target) preceded by another stimulus (the prime), and seeks to determine whether the type of prime affects the speed of decision, or reaction time (RT), about the target. The priming effect may be facilitatory (leading to a faster response) or inhibitory depending on the relations between the prime and the target. Three types of priming documented in native language (L1) processing were investigated in the study: phonological (*vrag/*VRACH), semantic (*oruzhie/*BITVA), and morphological (*xozhu/*XODIT').
        The obtained accuracy and RT data were analyzed using a repeated measures ANOVA. Similarly to heritage and native speakers, highly proficient adult L2 learners showed significant facilitating priming effects in semantic and morphological priming. However, L2 learners also showed a facilitating phonological priming effect, which is opposite in direction to the inhibitory effect observed in native and heritage speakers. Overall, L2 learners demonstrated lower accuracy rates, slower access, and weaker (or opposite) priming effects than heritage speakers matched with them in oral proficiency. Thus, several aspects of lexical storage and access, such as weaker semantic associations in the mental lexicon, differences in phonological processing, and slower access and decomposition in lexical processing characterize L2 learners in comparison with heritage speakers.