

Integration of morphosyntactic information in Heritage Russian: effects of cross-linguistic influence, working memory and extralinguistic factors

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Heritage Language (hereafter HL) grammars systematically differ from the baseline grammar, i.e., grammars of monolingual or bilingual speakers who are dominant in that language (Benmamoun, Montrul, & Polinsky 2013; Montrul, 2016, Polinsky, 2018; Rothman, 2009). HL grammars might undergo restructuring (Meir & Polinsky, 2019). Mechanisms of HL grammar variations are still debated (Polinsky, & Scontras, 2019, 2020). Among the potential sources of variation, previous research suggests (a) cross-linguistic influence from the dominant language, (b) Age of Onset of the Societal language (AoO) and (c) processing limitations.

Russian and Hebrew offer a unique opportunity to test how properties of the dominant language might be related to acquisition/ maintenance of HL. In both languages, adjective-noun agreement is presented as well as subject-verb-agreement. However, only Russian shows case concord, while in Hebrew case morphology is sparse. If properties of the dominant language shape HL acquisition / maintenance, based on the Russian and Hebrew, better performance is expected on adjective-noun and subject-verb agreement in HL speakers, while case concord is hypothesized to be more fragile.

The current study presents morpho-syntactic abilities of 76 Russian speakers divided into 4 groups: 1 group of monolingual baseline speakers residing in the former USSR and 3 groups of bilingual Russian-Hebrew speakers from Israel, who vary in the AoO of Hebrew (before age 5, between 5-13, after age 13). The participants completed an audio grammaticality judgment experiment (GJT). The GJT included three morpho-syntactic phenomena (subject-verb agreement, adjective-noun agreement, and case concord) across split and non-split conditions. The three grammatical categories are considered to be early-acquired categories in monolingual Russian-speaking children (see Gvozdev, 1961).

The results were analyzed using a mixed effects modeling with morpho-syntactic category (adjective-noun agreement, case concord and subject-verb agreement), Split (split vs. non-split) and Grammaticality (grammatical vs. ungrammatical). All the groups were less accurate on split constructions, in which the agreeing elements were separated by an intervening phrase. On all three conditions, early HL speakers (i.e., speakers with AoO before 5) showed lower performance and differed from the monolingual baseline controls as well as late HL speakers (AoO between 5-13) and bilingual Russian-Hebrew baseline bilinguals (with AoO after 13). The latter three groups showed comparable results. Early HL speakers showed higher performance on subject-verb agreement, compared to adjective-noun agreement and case concord.

To conclude, the results confirmed vulnerability of morpho-syntax in HL speakers with early AoO, pointing at the key role of AoO in HL development. Increased processing load affected the performance of all speakers. With respect to cross-linguistic influence, the findings showed a more complex picture than predicted. Theoretical implications of HL formation and mechanisms triggering variation will be discussed in the light of the obtained findings.

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