

## Long-distance dependencies in heritage Romanian: Comparing child and adult heritage speakers

Research on adult Heritage Speakers/HSs suggests that they often struggle with filler-gap relations, such as those found in *wh*-movement and relative clauses/RCS [1-4]. [1] has shown that while Russian-speaking child HSs (6;0–7;0) perform very well on object relative/OR comprehension, similarly to monolinguals, Russian-speaking adult HSs struggle with OR comprehension and manifest a strong preference to interpret ORs as subject relatives/SRs [1]. This difference in performance between child and adult HSs was interpreted as reduced sensitivity to case morphology in adult HSs, leading to a stronger preference for the SR interpretation. This, in turn, results in a rearrangement of RC syntax in adult HSs of Russian [5]. The divergence from the relevant baseline in the case of adult HSs, but not for child HSs, is thus likely attributable to HL attrition over time [1,4]. In this study, we take *which*-questions in Romanian (examples (1)-(4)) as test case and compare their comprehension and production in order to uncover whether *a.* child and adult Romanian HSs with L2 German show similar sensitivity to the presence of the Differential Object Marker/DOM *pe* on the object *wh*-word and use it to establish the correct object-gap dependency or whether *b.* *wh*-comprehension and production are subject to attrition in HS adults.

A total of 108 participants (31 HL children (5;6-10;0); 30 monolingually-raised children (6;4-10;4); 12 HL adults (16-47); 15 first-generation-immigrants (21-65); 30 monolingual adults (19-35)) participated in a comprehension and an elicited production task (32 items/task). For **comprehension**, participants saw pairs of pictures (Fig.1) while listening to subject/object *which*-questions and had to choose the picture matching the question. Half the test items contained two singular NPs (number match), the other half contained a plural and a singular NP (number mismatch). The results (Fig.2) revealed significantly better accuracy for subject-compared to object-questions ( $p < .001$ ) and an effect of age ( $p < .01$ ) in both child groups. Monolingually-raised children were significantly more accurate with object *which*-questions ( $p = .003$ ) than HL children. HL adults were significantly more accurate than HL children ( $p < .001$ ) and patterned with the other adult groups for comprehension. Fig. 3 illustrates the setup of the **elicited production** task. The results for production (Fig.4) indicate the presence of a subject-object asymmetry in all groups. Monolingual children produce significantly more target *which*-questions than HL children ( $p < .001$ ). HL adults' production of *which*-questions is on a par with that of monolingual children and significantly lower than for the other two adult groups, which pattern together.

The findings indicate that DOM in Romanian reduces, but doesn't eliminate, the subject-object asymmetry attested cross-linguistically for *which*-questions in children [6]. As a group, HL children show more difficulties comprehending and producing object *which*-questions relative to monolingually-raised children. No subject-object asymmetry in comprehension emerges among the adults. The HL adults accurately use DOM in their production; however, they produce significantly fewer *which*-questions compared to monolingual adults and first-generation immigrants. Both child and adult HSs, as well as monolingually-raised children, produce more *who*-questions compared to the two other adult groups. The results show that adult HSs of Romanian can successfully use DOM for interpretation and that the comprehension of object *which*-dependencies is not prone to attrition in heritage Romanian. Differences with monolingual and first-generation immigrant adults arise in production only, suggesting that adult HSs do not significantly differ from other bilingual and monolingual baselines in comprehension, but they vary in the way in which they activate this knowledge in production [7].

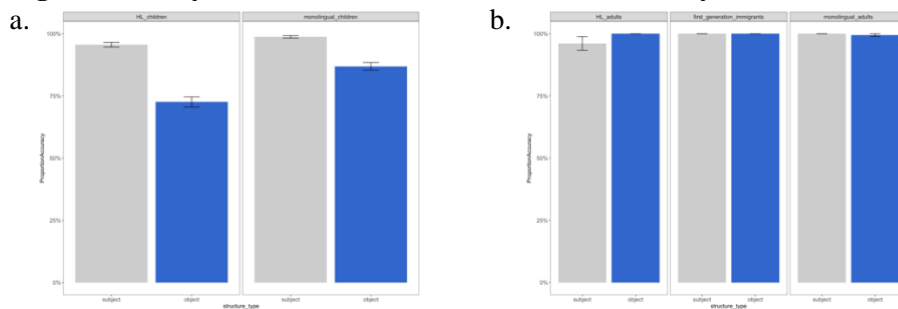
## Examples

1. **Care tigru**<sub>SG</sub> împinge ursul panda<sub>SG</sub> ? (subject number match)  
'Which tiger is pushing the panda?'
2. **Pe care tigru**<sub>i SG</sub> îi<sub>i</sub> împinge ursul panda<sub>SG</sub> ? (object number match)  
'PE which tiger him is the panda pushing?'
3. **Care tigrii**<sub>PL</sub> împing ursul panda<sub>SG</sub> ? (subject number mismatch)  
'Which tigers are pushing the panda?'
4. **Pe care tigrii**<sub>i PL</sub> îi<sub>i</sub> împinge ursul panda<sub>SG</sub> ? (object number mismatch)  
'PE which tigers them is the panda pushing?'

**Fig 1. Example of image pair used to assess comprehension of *which*-questions**



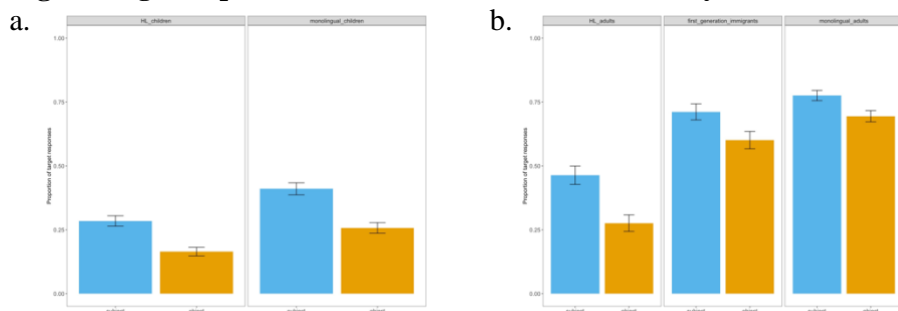
**Fig 2. Accuracy results for children (a) and adults (b) by condition (data analysed with GLMMs)**



**Fig 3. Sample item from the elicitation task targeting a subject *which*-question like (1).** Participants were first introduced to the characters (A), then saw the action in which either the agent(s) or the patient(s), are covered (B) and have to ask a question starting with a *which*-phrase.



**Fig 4. Target responses for children (a) and adults (b) by condition (data analysed with GLMMs)**



**References:** 1. Polinsky (2011) Reanalysis in Adult Heritage Language: New Evidence in Support of Attrition. *SSLA*; 2. Polinsky (2018) *Heritage Languages and Their Speakers*. CUP; 3. Hopp et al. (2019) Derivational Complexity vs. Transfer Effects: Long Distance *Wh*-movement in Heritage and L2 Grammars. *LAB*; 4. Polinsky & Scontras (2020) Understanding heritage languages. *BLC*; 5. Polinsky (forthcoming). Heritage language gaps. In R. D'Alessandro, M. Putnam, & S. Terenghi (eds.) *Heritage languages and linguistic theory*. Oxford: OUP. 6. Friedmann et al. (2017) No case for Case in locality: Case does not help interpretation when intervention blocks A-bar chains. *Glossa*; 7. Bentea & Marinis (2022) Multiple *wh*-interrogatives in child heritage Romanian: On-line comprehension and production. *Front. Psych.*