## Heritage speakers do not differ from monolinguals in clitic processing in Bulgarian

Tanya Ivanova-Sullivan<sup>1</sup>, Davood Tofighi<sup>2</sup>, Maria Polinsky<sup>3</sup>, Irina A. Sekerina<sup>4</sup>

<sup>1</sup>University of New Mexico, Department of Foreign Languages and Literatures
<sup>2</sup>University of New Mexico, Department of Psychology
<sup>3</sup>University of Maryland, Department of Linguistics
<sup>4</sup>CUNY, College of Staten Island, Department of Psychology

tivanova@unm.edu, dtofighi@unm.edu, polinsky@umd.edu, Irina.Sekerina@csi.cuny.edu

While object clitics (OCs) are well maintained in heritage languages (Polinsky & Scontras, 2020), their placement in some heritage languages (HLs), such as European Portuguese, is unstable. Rinke & Flores (2014) show that compared to the baseline, HL speakers overgeneralized enclitics in various syntactic contexts, regardless of the different syntactic triggers of clitics placement. They attribute this result to protracted acquisition, related to HL speakers' reduced experience with the formal register. In other clitic languages, such as Bulgarian, clitic placement is subject to the Strong-Start prosodic constraint, which prohibits OCs at the absolute start of an utterance (Harizanov, 2014). Little is known about OCs and their real-time processing in those HLs where syntactic and prosodic factors of clitics placement interact. To address this gap, we conducted a pilot self-paced listening experiment on OCs in Bulgarian. *Design*: The target placement of clitics *him* in Bulgarian is before the verb (CL V) unless clitics are in the absolute initial position, violating Strong Start. The CL conditions (1) and (4) are contrasted with the control NP conditions (2) and (3), with the ?N V order being pragmatically infelicitous. 16 targets and 16 fillers were preceded by context that introduced relevant antecedents for the object clitics.

Condition	Pre1	Pre2	Subject	Pre-V Obj	Verb	Post-V Obj	Post1
(1) CL V				go (him.CL)			
(2) ?N V	Vchera	sluchajno	Ivan	Petar (N)	vidja		v parka.
(3) V N						Petar (N)	
(4) *V CL						go (him.CL)	
'Yesterday accidentally Ivan saw him/Petar in the park.'							

22 monolingual and 13 English-dominant highly proficient Bulgarian speakers listened to the sentences (1)-(4) word-by-word on an online platform for behavioral research and their RTs were recorded. Based on the overall resilience of clitics in HLs, we predicted no difference in their processing by the two groups but expected lack of sensitivity by the HL speakers to the ungrammatical clitic condition, (4), given the findings from European Portuguese (Rinke & Flores, 2014).

Results: Follow-up comprehension questions revealed lower accuracy in HL speakers compared to monolinguals (79% vs. 90%). LMM analysis did not show any effects in RTs: no group, position, or condition differences for CL-object conditions (Fig. 1). This is in contrast to NP-object conditions, where HSs were significantly slower in processing postverbal objects (3) at the Post1 position (Fig.2), which suggests that they entertain fewer word order options than the baseline. Thus, Bulgarian HL speakers showed processing routines, similar to the baseline, which lends support to the resilience of clitics in HLs and the language-internal mechanisms of HL acquisition of cliticization.

## References

Harizanov, B. (2014). The role of prosody in the linearization of clitics: Evidence from Bulgarian and Macedonian. In C. Chapman, O. Kit & I. Kučerova (Eds.), *Formal Approaches to Slavic Linguistics 22* (pp. 109-130).

Polinsky, M. & Scontras, G. (2020). Understanding heritage languages. *Bilingualism: Language and Cognition*, 23 (1), 4-20.

Rinke, E. & Flores, C. (2014). Morphosyntactic knowledge of clitics by Portuguese heritage bilinguals. *Bilingualism: Languages and Cognition*, 17(4), 681-699.

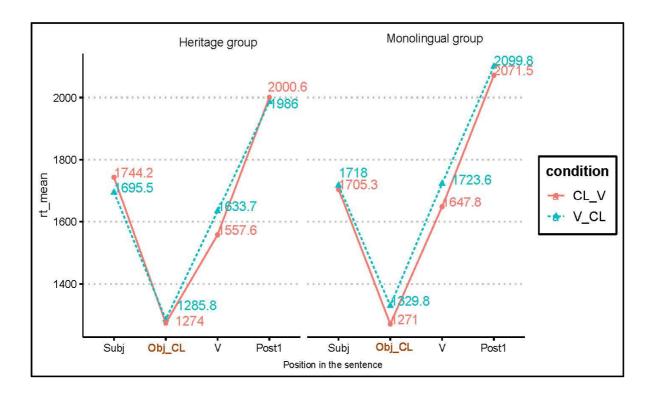


Fig. 1. HS vs. Mono: Mean RTs for Clitics (1),(4)

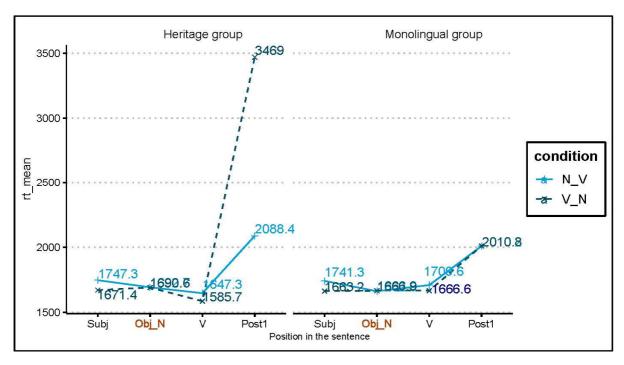


Fig. 2. HS vs. Mono: Mean RTs for NPs (2), (3)