

## Voice processing in Greek heritage children

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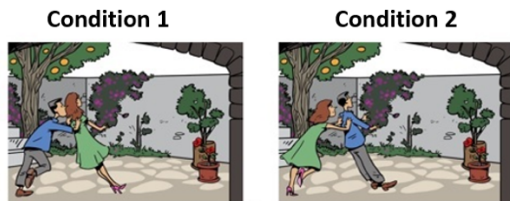
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The processing of Greek voice remains an understudied topic in bilingual populations. Greek non-active (NACT) morphology is highly syncretic marking not only passives but also various other alternations (e.g., anticausatives, reflexives). Passives have not been fully acquired even at age 6;6 (Zombolou et al., 2010; Terzi et al., 2014), while less is known about other NACT verbs.

The present study explores the processing of NACT in passives, reflexives, and anticausatives in monolingual (L1) and Greek-German heritage bilingual children. A self-paced listening (SPL) task with picture verification (Marinis & Saddy, 2013) was conducted to test participants' processing strategies in **(a)** passives (unambiguous NACT) (*Fig. 1*) and **(b)** in anticausatives and reflexives (ambiguous NACT). Participants were asked to decide whether the picture at the beginning of each trial (before the sentence-regions) matches (Condition 1) or mismatches (Condition 2) the content of the sentence. Twenty-five Greek monolingual adults (21;1), 24 L1 Greek children (83 months), and 22 Greek heritage children (87 months, age of onset to German 0-4 years) living in Germany participated in SPL.

Data analysis is in progress. The results from passives revealed that children scored significantly lower than adults in the end-of-sentence comprehension questions (heritage children: 63%, L1 children: 62%, adults: 87%). In the Reaction-Time analysis (RTs), two strategies were detected: **(a)** an agent-first strategy employed only by children: higher RTs on Region 2 for Condition 1 compared to Condition 2. This effect reflects that children anticipated the picture-agent, experiencing a surprisal effect when the picture-theme was presented; **(b)** a RT-penalty on the verb and the spill-over region (Regions 3 and 4) for Condition 2 compared to Condition 1 only for adults and L1 children, which signals sensitivity to voice morphology cues and *th*-roles. The results are in line with the late acquisition of Greek Voice in bilingual children (Tsimplici, 2014). Interestingly, although Greek L1 children exhibit difficulties (accuracy score and agent-first strategy), their processing pattern in passives has become adult-like in terms of sensitivity to voice cues during online comprehension (RT-penalty on the verb).

Preceding Picture presented in one of the two conditions.



**Region 1** **Region 2** **Region 3** **Region 4** **Region 5**  
 Βλέπω ότι / η κοπέλα / **σπρώχνεται** / έξω / στην αυλή.  
 I see that the girl **is being pushed** out in-the yard.

	Condition 1	Condition 2
<b>Region 2</b>		
Heritage children	673	565
L1 children	593	540
Adults	487	509
<b>Region 3</b>		
Heritage children	574	525
L1 children	483	591
Adults	425	556
<b>Region 4</b>		
Heritage children	559	523
L1 children	501	525
Adults	475	534

*Figure 1.* Item example with Regions and Conditions for passives.

**Table 1.** Mean RTs by Group.

## References

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