

Morphosyntactic and Prosodic Cue Sensitivity in Turkish Child Heritage Speakers: Evidence from Eye-Tracking

Selim Tiryakioğlu¹, Fatih Bayram², Leyla Zidani-Eroğlu³

¹ Istanbul Medeniyet University, ² Lancaster University, ³ Central Connecticut State University

Abstract

This study examines how Turkish child heritage speakers (HSs) in Norway interpret verb-medial sentences using prosodic and overt accusative case-marking cues in isolation. While prior research has emphasized the combined role of word order and case morphology in sentence processing, the present study expands this scope by isolating prosodic manipulation in scrambled Turkish sentences. Building on a previous finding from data we collected with Turkish monolingual adults—where prosody was used weakly—we hypothesize that prosodic cue development requires substantial input, unlike morphosyntactic cues such as accusative marking. In the present study, we recruited 46 HSs in Norway ($M_{age} = 11.01$) and 46 age-matched monolingual peers in Türkiye ($M_{age} = 10.03$), who completed offline and online comprehension tasks using a visual world eye-tracking paradigm.

Results reveal that both groups rely on overt accusative case marking for thematic role assignment, with heritage children showing weaker and delayed sensitivity compared to monolinguals. Specifically, case marking on NP1 elicited incremental processing effects in both groups, though heritage children exhibited reduced robustness and later onset of sensitivity. Case marking on NP2 produced minimal effects, with only monolingual children showing a brief late response. In the absence of overt cues, both groups defaulted to surface word order, with heritage children relying on it more strongly—likely reflecting cross-linguistic influence from Norwegian and reduced exposure to marked Turkish structures. Prosodic cues did not significantly influence interpretation in either group, suggesting that prosody functions as a weak and developmentally late-acquired cue. These findings support the Unified Competition Model, indicating that morphosyntactic cues like case marking are more robustly weighted than prosodic cues, particularly in heritage language contexts where input quantity and quality may be reduced.

Selected References

- Ito, K., & Speer, S. R. (2008). Anticipatory effects of intonation: Eye movements during instructed visual search. *Journal of Memory and Language*, 58(2), 541–573.
- Polinsky, M. (2018). *Heritage languages and their speakers*. Cambridge: Cambridge University Press.
- Serratrice, L. (2013). Cross-linguistic influence in bilingual development: Determinants and mechanisms. *Linguistic Approaches to Bilingualism*, 3(1), 3–25.
- Snedeker, J., & Trueswell, J. C. (2003). Using prosody to avoid ambiguity: Effects of speaker awareness and referential context. *Journal of Memory and Language*, 48(1), 103–130.
- Snedeker, J., & Yuan, S. (2008). Effects of prosodic and lexical constraints on parsing in young children (and adults). *Journal of Memory and Language*, 58(2), 574–608.
- Sorace, A. (2011). Pinning down the concept of “interface” in bilingualism. *Linguistic Approaches to Bilingualism*, 1(1), 1–33.