

## Processing of Prosody and Case Marking in Turkish Monolingual and Heritage Language Children

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### Abstract

This is an ongoing project funded by the Horizon-Europe Marie-Sklodowska Curie Fellowship Program. The study mainly aims to investigate Turkish heritage speakers' sensitivity to prosody and overt case marking cues when interpreting the argument structure in verb-medial sentences in Turkish, using a visual world eye-tracking paradigm. During predictive language processing, the human parser interprets sentence arguments based on cues such as morphological case marking, argument order, animacy, definiteness/specificity, person, and prosody. Listeners rely on different cues depending on their language. Previous research has shown that both monolingual and heritage speakers of Turkish use overt case marking as a cue in argument interpretation during predictive processing. However, the focus has primarily been on the interaction of case marking and word order cues in Turkish, necessitating an investigation into the role of other cues, both independently and in conjunction. This study involves school-aged participants (aged 6-16) who are heritage speakers of Turkish living in Norway, along with their input providers (parents and/or caregivers). The study also recruits age-matched monolingual children and parents. Participants are presented with images depicting characters (a monster and an alien) engaged in reversible actions, accompanied by audio recordings describing the actions in sentences in addition to a language background questionnaires (Q-Bex for children and HeLeX for adults), a receptive vocabulary measure (The Peabody Picture Vocabulary Task), a cognitive executive functions measure (The Flinker Task), and a phonological memory measure (Nonword and Sentence Repetition Tasks), experimental sentences are divided into five critical conditions:

- i. Non-case marked in neutral prosody
- ii. Non-case marked with object-type prosody
- iii. Non-case marked with subject-type prosody
- iv. NP1-acc marked in neutral
- v. NP2-acc marked in neutral prosody

Tracking participants' eye movements, the results of these critical conditions will reveal the roles of prosody and case marking in an online comprehension task and their relative strengths as cues. Additionally, the study examines how engagement in different qualities and quantities of literacy education in the heritage language Turkish modulates predictive processing in Turkish. The project timeline is as follows: Pilot Study (March 2024), Data Collection (April 2024), and Data Analysis (May 2024). Consequently, we will be able to present the initial results at the upcoming conference.

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