

Tracking the early stages of L2 comprehension in children and adults instructed via a computer game

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Summary:

This laboratory-based study aims at investigating child and adult auditory comprehension of a semi-artificial language with Japanese word order in the very early stages of learning. Preliminary results indicate comparable proficiency trajectories in the two groups, but show that children are significantly faster in selecting correct responses compared to adults.

In this laboratory-based study I aimed at investigating comprehension in the very early stages of language learning in the context of implicit computer-assisted instruction. A group of 9 year olds and a group of adults (both L1 English) were compared on their comprehension of the morpho-syntax of a version of Brocanto2 (Morgan-Short, 2007; Morgan-Short et al. 2013, 2014), a fully productive semi-artificial language displaying the word order of Japanese.

Over three sessions of about 45 minutes on three consecutive days, instruction was provided using a computer board game similar to draughts. After vocabulary training and an exposure phase where language stimuli were presented in association to corresponding moves on the game board, the participants played six games (20 sentences per block). They were asked to perform moves on the board following an auditory description in Brocanto2 and gained points when a move was correct.

Evidence coming mainly from classroom-based studies has shown that adults are advantaged compared to younger learners if the rate of learning is considered (Muñoz, 2006; 2008). However, the analysis of the game scores revealed very similar attainment trajectories for children and adults. Interestingly, the analysis of reaction times also showed that mean latencies across blocks were significantly shorter for children compared to adults. Finally, a preliminary analysis of the coefficient of variation (CV) in the two groups (Segalowitz & Segalowitz, 1993; Segalowitz & Hulstijn, 2005; Lim & Godfroid, 2015) provides initial evidence of differences between children and adults relative to the early emergence of automaticity patterns.