

## The role of the functional heads in Hungarian PP recursion

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This paper aims to prove that the more salient the functional heads are in Hungarian recursive PPs, the easier children can understand them. The two main hypotheses of the analysis are as follows:

- (i) if the salient functional heads help Hungarian children acquire embedded structures, and
- (ii) because of the salience of the functional elements they tend to interpret recursive PPs correctly at an early age.

Chomsky–Hauser–Fitch (2002) stated that recursion is the core property of the faculty of language in a narrow sense; thus it is the basis of human communication. Accordingly, children must also bear this faculty; recursion must appear in their command of language as well. Hollebrandse–Roeper (2014) found that Japanese children can acquire recursion earlier than English children. As for younger children there is a possible default interpretation for recursive, embedded structures, and this is conjunction. DiSciullo (2015) claimed that in recursive structures there has to be a functional element between two constituents, that means they cannot *merge* directly [X [F X]]. One of the possible reasons for the different timing of the acquisition of recursive PPs in Japanese and English can be the salience of the functional elements. The next arising question is whether Hungarian kindergarteners learn to interpret embedded structures correctly, or they still interpret them conjunctively.

In the course of this experiment I have tested 20 kindergarteners (age 5-6), 20 second graders (age 8-9) and 20 adults. There were two kinds of test sentences they had to act out:

- (1) *A krokodil a majom alatt-i oroszlán előtt áll.*  
The crocodile the monkey under-ADJ lion before stands  
'The crocodile stands before the lion under the monkey.'
- (2) *A krokodil a majom alatt lévő oroszlán előtt áll.*  
The crocodile the monkey under being lion before stands  
'The crocodile stands before the lion under the monkey.'

The preliminary data show that both structures (1) and (2) were interpreted recursively by older children and adults, while younger children gave conjunctive interpretation for these sentences as well. There was only a slight difference between the interpretation of the two functional elements (*-i* and *levő*) in the case of the younger group ( $p < 0.05$ ), but they tend to miss out one or two PPs.

I claim that when embedded recursion is not acquired properly yet, the salience of the functional heads helps children to interpret recursive structures correctly.

### References:

- Di Sciullo, A. M. 2015. On the Domain Specificity of The Human Language Faculty and the Effects of Principles of Computational Efficiency: Contrasting Language And Mathematics. *Revista Lingüística* 11/1: 28-53.
- Hollebrandse, B.–Roeper, Tom 2014. Empirical Results and Formal Approaches to Recursion in Acquisition In: Tom Roeper – Margaret Spears (eds.) *Recursion: Complexity in Cognition*. Springer. Berlin. 179-220.