

Recursion in children's Hungarian:
the acquisition of complex PPs vs. recursive possessives

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In this presentation we aim to investigate how Hungarian children acquire (1) a syntactically non-recursive structure (complex PPs), and a (2) syntactically recursive construction (recursive possessives).

It is claimed that recursive structures mean general difficulty for children, (Roeper 2011, Hollebrandse – Roeper 2014, Perez-Leroux et. al. 2012). There is an acquisition path that children have to proceed. So our first research question is: (i) at which age do Hungarian children comprehend and also start to produce these two structures? What do they (ii) produce and how do they comprehend these constructions before this age? We hypothesize that (iii) complex PPs are acquired earlier than recursive possessives, as syntactic recursion means great challenge for language acquisition system. The former ones are not syntactically recursive structures.

There are some reasons why we do not treat complex PPs as recursive constructions. Figure 1 and 2 are very telling. For Hungarian complex PPs the strongest reason is; there is only one DP layer in the structure.

There were two experiments regarding complex PPs (Experiment 1) and recursive possessives (Experiment 2). Both of the experiments had comprehension and production tasks. 4 to 8-year-old children were tested. In Experiment 1 we used a double-decker toy with some carton animals (Figure 3). In this task they had to put the animals to the right places, which were described by the test sentences (1). In the production part children had to put the animals to the right places, but they also had to tell us, where they put the animals.

In the second experiment we used a wooden house (Figure 4), and some carton figures. In the comprehension section, the task of children was to collect the appropriate ingredients from the appropriate characters (as we planned to bake a cake). In the production task, children had to tell that the ingredient of whom was taken by the experimenter.

The data show that (i) in the case of complex PPs even 63,8% ($p < 0,05^*$), and in the case of recursive possessives 76% of 4-year-olds ($p < 0,001^{***}$) could comprehend the test sentences correctly. Older children performed better. The production of complex PPs starts at the age of 7 (46,8%), whereas the production of recursive possessives starts at age 6 (41%). At the age of 8 the production of the two structures is already acquired (PPs: 65,1% $p < 0,05^*$ Recursive possessives: 92,9%, $p < 0,001^{***}$).

Before children would be able to comprehend the two structures correctly, they (ii) tend to interchange the lexical items (3). The majority of children produced the parts of the target sentences (and not the whole one) till age 7 (complex PPs), and till age 6 (recursive possessive). Production shows 2-3 years delay compared to comprehension.

The data show that (iii) a non-recursive structure (complex PPs) is a later development in acquisition than the recursive one (recursive possessives).

In sum, we suggest that the acquisition of recursive structures can be faster than the acquisition of non-recursive constructions with the same complexity. This can be explained by the recursive basic module of language faculty.

- (1) *A tehén üljön le az egér fölötti cica elé!*
 The cow sit down the mouse above cat in front of
 “The cow should sit down in front of the cat above the mouse.”
- (2) *Tegyük a kosárba a boszorkány-0 kacsá-já-nak az almáját!*
 Let’s put into the basket the witch-(DAT) duck-poss-DAT the apple-poss-Acc
 „Let’s put the witch’s duck’s appel into the basket”
- (3) Target:
in front of the cat above the mouse
 Result:
in front of the cat above the monkey

Figure 1.

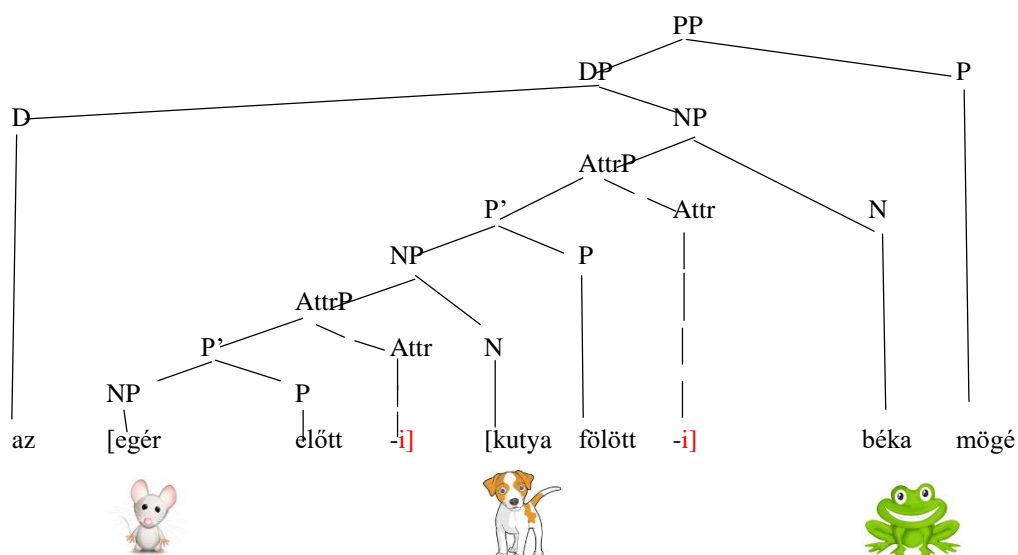


Figure 2.

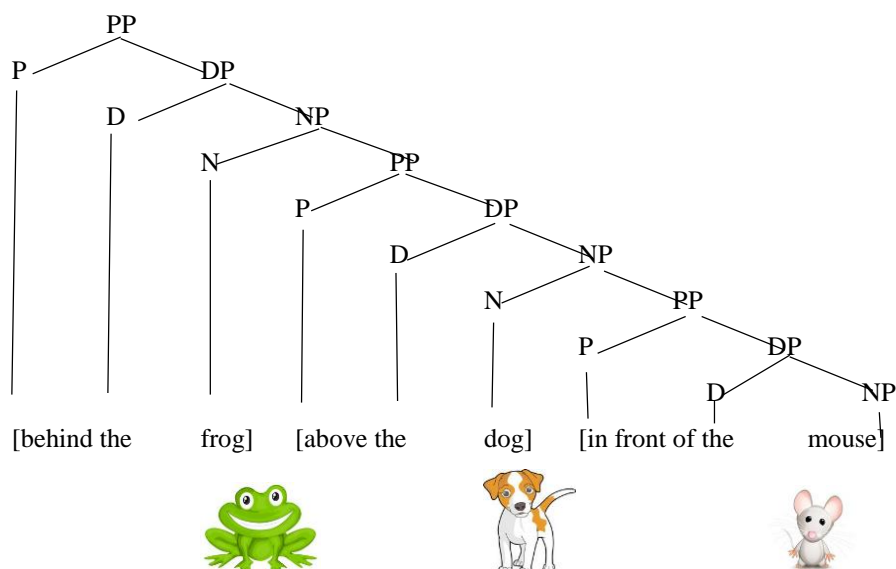


Figure 3.



Figure 4.



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