2-18. *Before* and *After* with Temporal and Spatial Meaning in Language Acquisition

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Research question

Do Hungarian postpositions with a spatial meaning have an influence on the appearance of temporal meaning during language acquisition? I observed the usage of the postpositions *előtt* ('in front of/before') and *mögött/után* ('behind/after') in temporal and spatial meanings. The hypothesis was that the conceptual interpretation of space predates the conceptual interpretation of time (Bowerman, 1983).

Background

The order of the acquisition of Hungarian locations is as follows: 'before/in front of' > 'behind', because of the phenomenon called *expediency* (Pléh, 2014). In temporal relations, the order 'after' > 'before' can be predicted from the notion of *order-of-events* (Crain & Thornton, 1998).

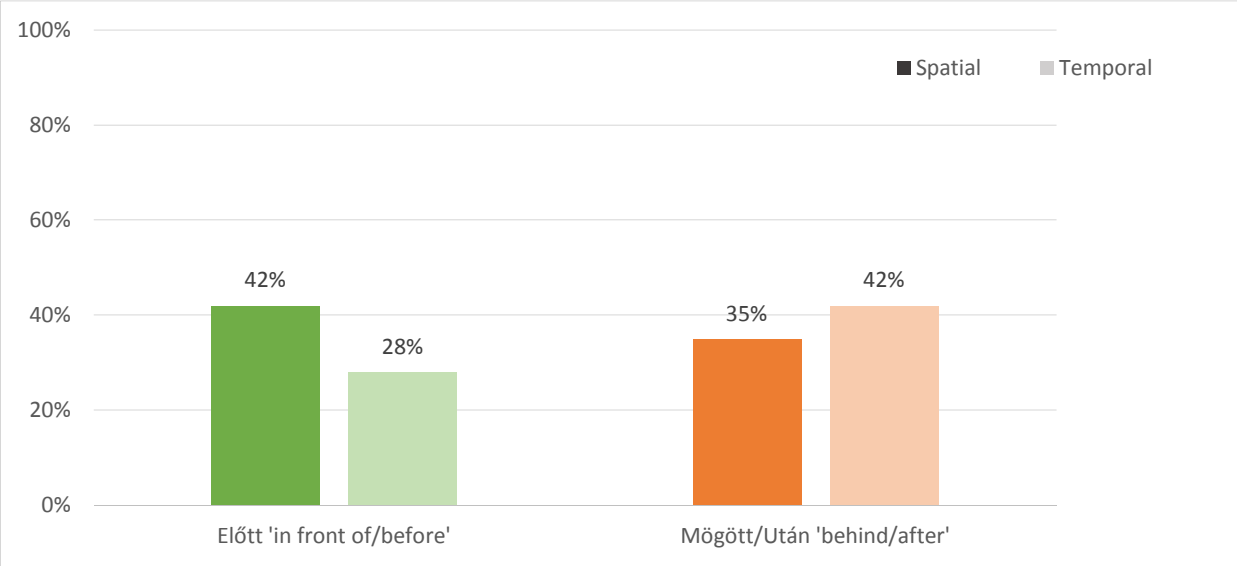
Experiment

The experiment was divided into a spatial and a temporal part. In the spatial part I used toy furniture, and two puppets played hide and seek. The children's role was to help the girl puppet to find the boy puppet in the room, and there were 15 scenes: 4 with a truth-value judgement task, 4 with an elicited production task and 7 filler scenes. In the temporal part, I used 3 picture sequences with 3 daily events on them. I asked 9 questions (3 for each sequence): 3 forced-choice questions, 3 elicited production questions, and 3 fillers. 15 children participated, from age 4;4 to 7. It was a personal interview. I made video and audio records.

Results

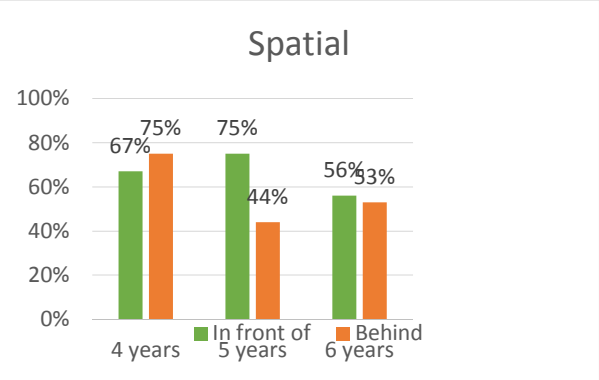
For a brief overview, the results were the following: In the spatial task children used *előtt* 'in front of' in 42% of cases, and *mögött* 'behind' in 35% of cases. – Adults: 67% - 83%. In the temporal part *előtt* 'before' appeared in 28% and *után* 'after' in 42% .– Adults 100% - 100% – in the predicted positions (Table 1).

Table 1: *Mean percentage of spatial and temporal postpositions.*

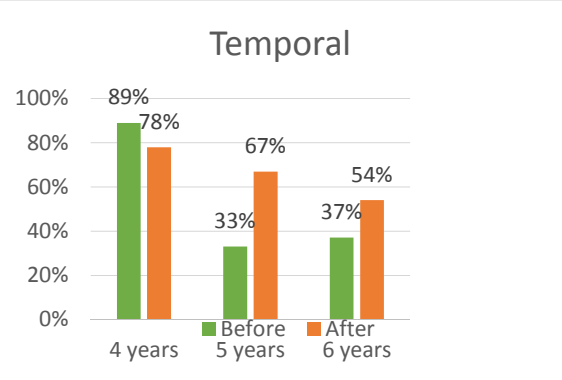


In 15% of the data, children made up an extra scene before the first picture of the sequence instead of relating it to the forthcoming one, by using után 'after'. As Tables 2 and 3 show, there was a little difference in the data of predicted answers of 4-year-olds: it could be because of the low amount of participants, and we need more data to explain it. But it is clear that the linguistic behaviour of the whole group of pre-schoolers differed from the production of adults.

***Table 2**: The rate of answers with spatial meaning.* ***Table 3**: The rate of answers with temporal meaning by by different age groups*



different age groups.



Our Hungarian data support the previous hypotheses about the order of acquisition of the postpositions. There is no evidence of spatial relations influencing tempora ones, but there is a main parallel feature in temporal and spatial concepts: *Expediency* could not just be a determining feature in spatial concepts (like the egocentric view), but in temporal concepts as well, as the cognitive simplicity of the *order-of-events*. The main evidence for this is that it needs less cognitive effort from children to create a new event-scene to keep the order of events than switch this order, and use *before*.

References:

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