

Exploring Task Co-representations and Theory of Mind Among Children Aged 3-5

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While engaging in joint actions humans form task co-representations of their partner's complementary parts of the task which often appears in the form of interference in task achievement. The current study investigated whether task co-representations during a joint action can be observed among children aged 3-5. A crucial aim was to conduct a study targeting the younger age group, as joint action seems to appear at an early age, however the methods used in previous studies found evidence of task co-representations only after the age of 4. To test whether children can form task co-representations during solving a go-nogo reaction time task we designed a new paradigm called the Tower task. Instead of parallel task solving this task involves a clear common goal which helps children to understand the jointness of the situation. The study also investigated whether forming co-representations is connected to individuals' theory of mind (ToM) abilities. According to our results, children in the 4-5 years old age group and in the 3 years old age group as well were able to form task co-representations in the Tower task. Furthermore, our results indicate that better ToM abilities helped children to avoid the interference cause by forming co-representations. To explore the relationship between co-representations and ToM more deeply we are currently conducting the online version of the study. Supported by the ÚNKP-20-2 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund.