The Predictive Implication of Executive Function and Language in Theory of Mind Development in Preschool Age Children

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Abstract : Theory of mind is a milestone in child development which allows children to understand that others could have different mental states than theirs. Understanding the developmental stages of theory of mind in children leaded researchers on two Connected research problems. In one hand, the link between executive function and theory of mind, and on the other hand, the relationship of theory of mind and syntax processing. These two lines of research involved a great literature, full of important results, despite certain level of disagreement between researchers. For a long time, these two research perspectives continue to grow up separately despite research conclusion suggesting that the three variables should implicate same developmental period. Indeed, our goal was to study the relation between theory of mind, executive function, and language via a unique research question. It supposed that between executive function and language, one of the two variables could play a critical role in the relationship between theory of mind and the other variable. Thus, 112 children aged between three and six years old were recruited for completing a receptive and an expressive vocabulary task, a syntax understanding task, a theory of mind task, and three executive function tasks (inhibition, cognitive flexibility and working memory). The results showed significant correlations between performance on theory of mind task and performance on executive function domain tasks, except for cognitive flexibility task. We also found significant correlations between success on theory of mind task and performance in all language tasks. Multiple regression analysis justified only syntax and general abilities of language as possible predictors of theory of mind performance in our preschool age children sample. The results were discussed in the perspective of a great role of language abilities in theory of mind development. We also discussed possible reasons that could explain the non-significance of executive domains in predicting theory of mind performance, and the meaning of our results for the literature.

Keywords : child development, executive function, general language, syntax, theory of mind Conference Title : ICDPA 2024 : International Conference on Developmental Psychology and Adolescence Conference Location : Toronto, Canada Conference Dates : July 18-19, 2024