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The Relation Between the Development of Counterfactual Thinking and Piagetian Conservation

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Abstract

Conservation experiments are at the heart of Piaget's theory that young children are easily misled by appearances and fail to acknowledge the stability of reality. An independent line of research on the development of counterfactual thinking suggests that children struggle to imagine how the world would be if specific events had not occurred. Although seemingly unrelated, we proposed that counterfactual thinking may play a role in mentally reversing changes in conservation tasks. The present study examined whether children's counterfactual thinking predicts their performance on conservation problems. Forty-eight children between 6 and 8 years old completed conservation and counterfactual thinking tasks online. Results showed that children's performance on the counterfactual thinking task significantly predicted their performance on the conservation task. Age also significantly predicted children's performance on both tasks. The findings suggest that there is a so-far undetected involvement of counterfactual thinking in understanding the principle of conservation.