At the root of prospection: Mental time line and mental number line as predictors of children's future thinking.

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In the last years, growing attention has been devoted to the study of the role of a Mental Time Line (MTL) in supporting the ability to project oneself mentally to a moment in the past or future (prospection). However, when and how these complex cognitive abilities emerge and then develop in children is still controversial. The present study fits into this scenario, which has been scarcely explored, in an attempt to clarify: a) The relationship between the MTL and the Mental Number Line (MNL) in children aged 4 to 7; b) The orientation of the MTL in children who have not yet acquired the skills of reading and writing; and c) The relationship between MTL and future-oriented thoughts (prospection). Twenty children aged 4 to 5 years and 20 children aged 6 to 7 years were administered four tasks: A number to position task, a time to position task, a MTL task and a prospection task. Results showed that the MTL is related with spatial skills (MNL), that the MTL orientation appears to be bound and conditioned by the skills of reading and writing, and that as performance in the MTL and in the MNL improves, so does performance in the prospection task. We, therefore, suggest that children’s prospection skills are rooted in the development of a MTL and a MNL.