Neural development of numerical and arithmetical abilities in typically developing children and children with developmental dyscalculia

Developmental dyscalculia is a learning disability attributed to deficient numerical-arithmetical skills and dysfunction of the neural network for number processing. There is a great lack of research in dyscalculia, despite the high prevalence and the far-reaching consequences in daily life. In the funded project I investigate the numerical and arithmetical abilities in children with and without dyscalculia in the first years of formal schooling by means of longitudinal fMRI (functional magnetic resonance imaging). The gained knowledge on the developmental progress of behavioural and neural numerical cognition is a crucial step towards the understanding and support of children with dyscalculia.

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