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Numerical estimation in individuals with Down syndrome.

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Summary: We investigated numerical estimation in children with Down syndrome (DS) in order to assess whether their pattern of performance is tied to experience (age), overall cognitive level, or specifically impaired. *R. S. Siegler and J. E. Opfer's* ["The development of numerical estimation: evidence for multiple representations of numerical quantity", Psych. Sci. 14, No. 3, 237–243 (2003), <http://www.jstor.org/stable/40063895>] number to position task, which requires translating a number into a spatial position on a number line, was administered to a group of 21 children with DS and to two control groups of typically developing children (TD), matched for mental and chronological age. Results suggest that numerical estimation and the developmental transition between logarithm and linear patterns of estimates in children with DS is more similar to that of children with the same mental age than to children with the same chronological age. Moreover linearity was related to the cognitive level in DS while in TD children it was related to the experience level.

Classification: F23 C43

Keywords: Down syndrome; numerical cognition; number-line estimation

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