



A brief history of dyscalculia

Brian Butterworth,
Institute of Cognitive Neuroscience at
University College London, UK

I trace the attempts to isolate numerical processes in the human brain from studies of neurological patients beginning with the work of Henschen in 1920s, and ask whether the neuropsychology of adult numerical competences is a good model for the development of numerical competence in children. Can children be bad with numbers but have normal or superior cognitive abilities? I conclude with recent work on the genetics of numerical abilities which inevitably leads us to consider the genetics of numerical abilities and disabilities in small fish.

Brian Butterworth is in the Institute of Cognitive Neuroscience at University College London. He led two European networks, Neuromath and Numbra, that promoted multidisciplinary research on mathematical cognition and founded the Centre for Educational Neuroscience in London. He has written popular science books, *The Mathematical Brain* (1999) [*Intelligenza matematica* (1999)], and *Can fish count: What animals reveal about our uniquely mathematical minds*, as well as books on dyscalculia for the general reader, *I numeri e il calcolo* (2011), *Dyscalculia: from science to education* (2019) [*Discalculia: Della scienza all'insegnamento* (2021)] He co-edited with Denis Mareschal and Andrew Tolmie, *Educational Neuroscience* (2013).

