New Research in Autism Research

Congratulations to David and Murphy, whose latest paper has just been published in Autism Research!


Number skills are often reported anecdotally and in the mass media as a relative strength for individuals with autism, yet there are remarkably few research studies addressing this issue. This study, therefore, sought to examine autistic children’s number estimation skills and whether variation in these skills can explain at least in part strengths and weaknesses in children’s mathematical achievement. Thirty-two cognitively able children with autism (range = 8-13 years) and 32 typical children of similar age and ability were administered a standardized test of mathematical achievement and two estimation tasks, one psychophysical nonsymbolic estimation (numerosity discrimination) task and one symbolic estimation (numberline) task. Children with autism performed worse than typical children on the numerosity task, on the numberline task, which required mapping numerical values onto space, and on the test of mathematical achievement. These findings question the widespread belief that mathematical skills are generally enhanced in autism. For both groups of children, variation in performance on the numberline task was also uniquely related to their academic achievement, over and above variation in intellectual ability; better number-to-space mapping skills went hand-in-hand with better arithmetic skills. Future research should further determine the extent and underlying causes of some autistic children’s difficulties with regards to number. Autism Res 2015. (c) 2015 International Society for Autism Research, Wiley Periodicals, Inc.