

Study finds autistics better at problem-solving

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Autistics are up to 40 percent faster at problem-solving than non-autistics, according to a new Université de Montréal and Harvard University study published in the journal *Human Brain Mapping*. As part of the investigation, participants were asked to complete patterns in the Raven's Standard Progressive Matrices (RSPM) - test that measures hypothesis-testing, problem-solving and learning skills.

"While both groups performed RSPM test with equal accuracy, the autistic group responded more quickly and appeared to use perceptual regions of the brain to accelerate problem-solving," says lead author Isabelle Soulières, a post-doctoral fellow at Harvard University who completed the experiment at the Université de Montréal. "Some critics argued that autistics would be unable to complete the RSPM because of its complexity, yet our study shows autistics complete it as efficiently and have a more highly developed perception than non-autistics."

Fifteen autistics and 18 non-autistics were recruited for the study. Participants were 14 to 36 years old and matched according to their preliminary results on the Wechsler Adult Intelligence Scale. All subjects underwent magnetic resonance imaging to explore their neural activity during RSPM problem-solving. While autism is a common neurodevelopmental disability characterized by profound differences in information processing and analysis, this study showed that autistics have efficient reasoning abilities that build on their perceptual strengths.

"This study builds on our previous findings and should help educators

capitalize on the intellectual abilities of autistics," says senior researcher Laurent Mottron, the new Marcel & Rolande Gosselin Research Chair in Autism Cognitive Neuroscience of the Université de Montréal and psychiatry professor. "The limits of autistics should constantly be pushed and their educational materials should never be simplified."

Adds Dr. Soulières: "The Raven's Standard Progressive Matrices are among the most complex tests to provide insight on how a person understands and formulates rules, manages goal hierarchies and performs high-level abstractions. Our wager was that autistics could complete such a test and they surpassed our expectations."

Source: University of Montreal ([news](#) : [web](#))

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