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The Puzzle of Hidden Ability

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**By Sharon Begley**
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Even their parents struggle to draw the tiniest hint of emotion or social connection from autistic children, so imagine what happens when a stranger sits with the child for hours to get through the standard IQ test. For 10 of the test's 12 sections, the child must listen and respond to spoken questions. Since for many autistics it is torture to try to engage with someone even on this impersonal level, it's no wonder so many wind up with IQ scores just above a carrot's (I wish I were exaggerating; 20s are not unknown). More precisely, fully three quarters of autistics are classified as having below-normal intelligence, with many deemed mentally retarded.

It's finally dawning on scientists that there's a problem here. Testing autistic kids' intelligence in a way that requires them to engage with a stranger "is like giving a blind person an intelligence test that requires him to process visual information," says Michelle Dawson of Rivière-des-Prairies Hospital in Montreal. She and colleagues therefore tried a different IQ test, one that requires no social interaction. As they report in the journal *Psychological Science*, autistic children's scores came out starkly different than on the oral, interactive IQ test—suggesting a burning intelligence inside these kids that educators are failing to uncover.

That failure has lifelong implications. "If we label these children as below-normal in intelligence, that is how they're treated," says Laurent Mottron, who led the study. The disparity between scores on the two IQ tests also makes you wonder who else the tests, which are used for everything from screening military recruits to filling "gifted" classes, are mislabeling.

For the study, children took two IQ tests. In the more widely used Wechsler, they tried to arrange and complete pictures, do simple arithmetic, demonstrate vocabulary comprehension and answer questions such as what to do if you find a wallet on the street—almost all in response to a stranger's questions. In the Raven's Progressive Matrices test, they got brief instructions, then went off on their own to analyze three-by-three arrays of geometric designs, with one missing, and choose (from six or eight possibilities) the design that belonged in the empty place. The disparity in scores was striking. One autistic child's Wechsler result meant he was mentally retarded (an IQ below 70); his Raven's put him in the 94th percentile. Overall, the autistics (all had full-blown autism, not Asperger's) scored around the 30th percentile on the Wechsler, which corresponds to "low average" IQ. But they averaged in the 56th percentile on the Raven's. Not a single autistic child scored in the "high intelligence" range on the Wechsler; on the Raven's, one third did. Healthy children showed no such disparity.

The Wechsler measures "crystallized intelligence"—what you've learned. The Raven's measures "fluid intelligence"—the ability to learn, process information, ignore distractions, solve problems and reason—and so is arguably a truer measure of intelligence, says psychologist Steven Steiner of Wesleyan University.

That presents a puzzle. If many autistics are more intelligent than an IQ test shows, why haven't their parents noticed? Partly because many parents welcome a low score, which brings their child more special services from schools and public agencies, says one scientist who has an autistic son (and who fears that being named would antagonize the close-knit autism community). But another force is at work. "We often think of intelligence as what you can show, such as by speaking fluently," says

psychologist Morton Ann Gernsbacher of the University of Wisconsin. "Parents as well as professionals might be biased to look at that" rather than dig for the hidden intellectual spark.

The challenge is to coax that spark into the kind of intelligence that manifests itself in practice. That is something autism researchers are far from doing. Worse, much of the expert advice might be counterproductive. Many experts dismiss autistics' exceptional reading, artistic or other abilities as side effects of abnormal brain function, "not a reflection of genuine human intelligence, which it is likely to be," says Mottron. They advise parents to steer their child away from what he excels at and obsesses over, such as letters and words and details, and toward what he struggles with, such as faces and the big picture. Dawson, who is autistic, thinks that's a prescription for intellectual failure; autistics should be encouraged to build on their strengths, as everyone else is. The problem of a lurking intelligence that won't be coaxed out by the usual education and parenting methods is not necessarily unique to autistics. It makes you wonder how many other children, whose intellectual potential we're too blind to see, we've also given up on.

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