

The Link Between Autism Genetics and Genius

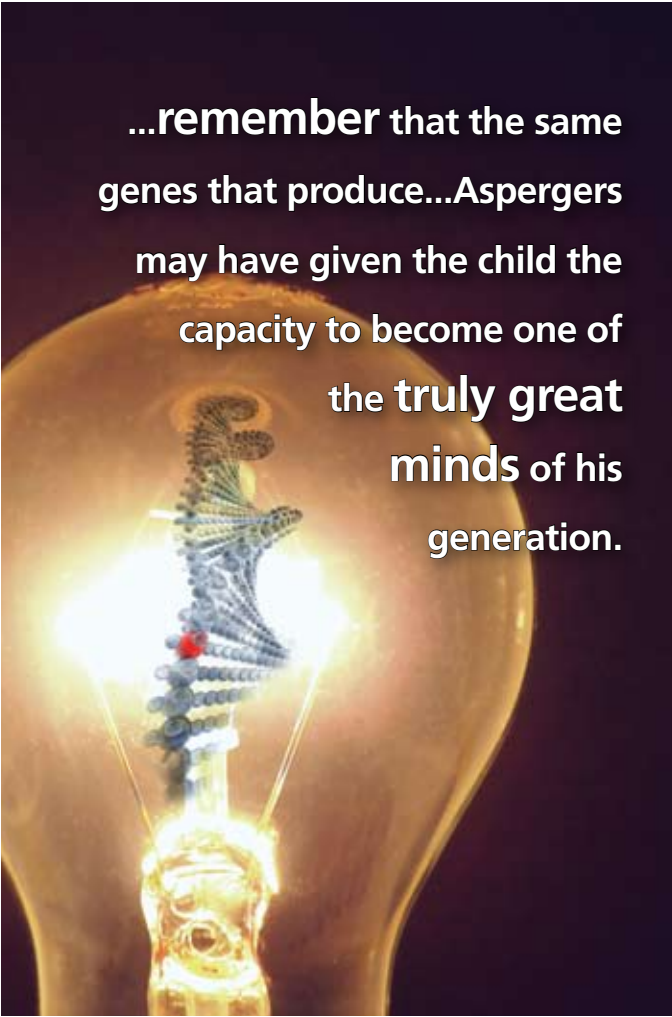
As a society, we still tend to view disabilities in a negative light. We may use politically correct language and say these people are “challenged” or “differently-abled”, but the fact remains that we generally focus more on what they can’t do, and tend to overlook the positive traits many of these individuals possess. Such is the case with people with autism and Asperger’s Syndrome. If the genetic factors that cause autism were eliminated from the human race, we would pay a terrible price. The way I see it, it is likely that the genetics that produce autism are the same genetics that create an Einstein or a Mozart – it is more a matter of degree. A little of the genetic expression produces highly creative, brilliant thinkers. Too much of the genetics, however, results in severe autism, a nonverbal and much more challenged child.

If Albert Einstein were born today, he would be diagnosed with autism. He had no speech until age three, obsessively repeated certain sentences until the age of seven, and spent hours building houses from playing cards. His social skills remained odd through most of his life, and he was a self-described loner:

“My passionate sense of social justice and social responsibility has always contrasted oddly with my pronounced lack of need for direct contact with other human beings and human communities. I am truly a lone traveler and have never belonged to my country, my home, my friends, or even my immediate family, with my whole heart...”

A host of other brilliant historic figures such as Isaac Newton, Thomas Jefferson, Socrates, Lewis Carroll, Glenn Gould and Andy Warhol are now speculated to have been on the autism spectrum.

Several books have been written that profile famous scientists, musicians, and artists who were on the autism/Aspergers spectrum. In his 2007 release, *Genius Genes: How Asperger Talents Changed the World*, Professor of Psychiatry at Trinity College, Dublin, Michael Fitzgerald, reached the conclusion that ASDs, creativity and genius were all caused by similar genes, after comparing the characteristics



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of more than 1,600 people he had diagnosed with known biographical details of famous people. I see it the same way: A mild case of Asperger’s Syndrome and being eccentric are the SAME thing, and the positive characteristics of being on the autism spectrum – detailed thinking, unwavering focus, obsessive interests in certain topics – are the very qualities that result in genius thought and life-changing discoveries.

Temple Grandin, Ph.D.



Simon-Baron Cohen, a researcher at the University of Cambridge, England, found that within families of children with autism, there existed a significantly greater number of parents and/or close relatives working as engineers and in other technical professions. In my family, my grandfather was an MIT-trained engineer who was co-inventor of the automatic pilot for airplanes.

Geeks, nerds, and eccentrics have always been in the world; what has changed is the world itself and our expectations of others within it. I work in a technical field and have worked with many engineers and other technical people who definitely displayed marked characteristics of Asperger's Syndrome. Most of these people are now in their 40s, 50s, and 60s - and they are all undiagnosed. They were brought up in an era where social rules were more strictly defined and were carefully taught to all children. This more rigid upbringing actually helped these children acquire enough social skills to get by in the world. Many are successful, and they have held good jobs for years. I know one Asperger meat plant engineer who keeps a multi-million dollar plant running.

I get worried that today an Asperger diagnosis may be detrimental to some individuals and hold them back. With greater competition for shrinking numbers of jobs, a person's social capabilities are now looked at as closely as are the person's technical skills or intellectual abilities. The most successful people with mild Aspergers work in places such as Silicon Valley, where superior talent still trumps social skills. Often these individuals have parents who are also in a high tech field and as the child grew, placed more importance on teaching their children computer programming and other technical skills than worrying about whether or not they had girlfriends or boyfriends or wanted to attend every school dance.

I have given talks at conferences geared to a number of different diagnostic categories such as autism, gifted, and dyslexia. Even though diagnosis is not precise, each diagnostic group lives in its own world. When I go to the book tables, there are very few books stocked on BOTH an autism book table and a gifted book table. The books addressing these individuals may be different but I see the same bright

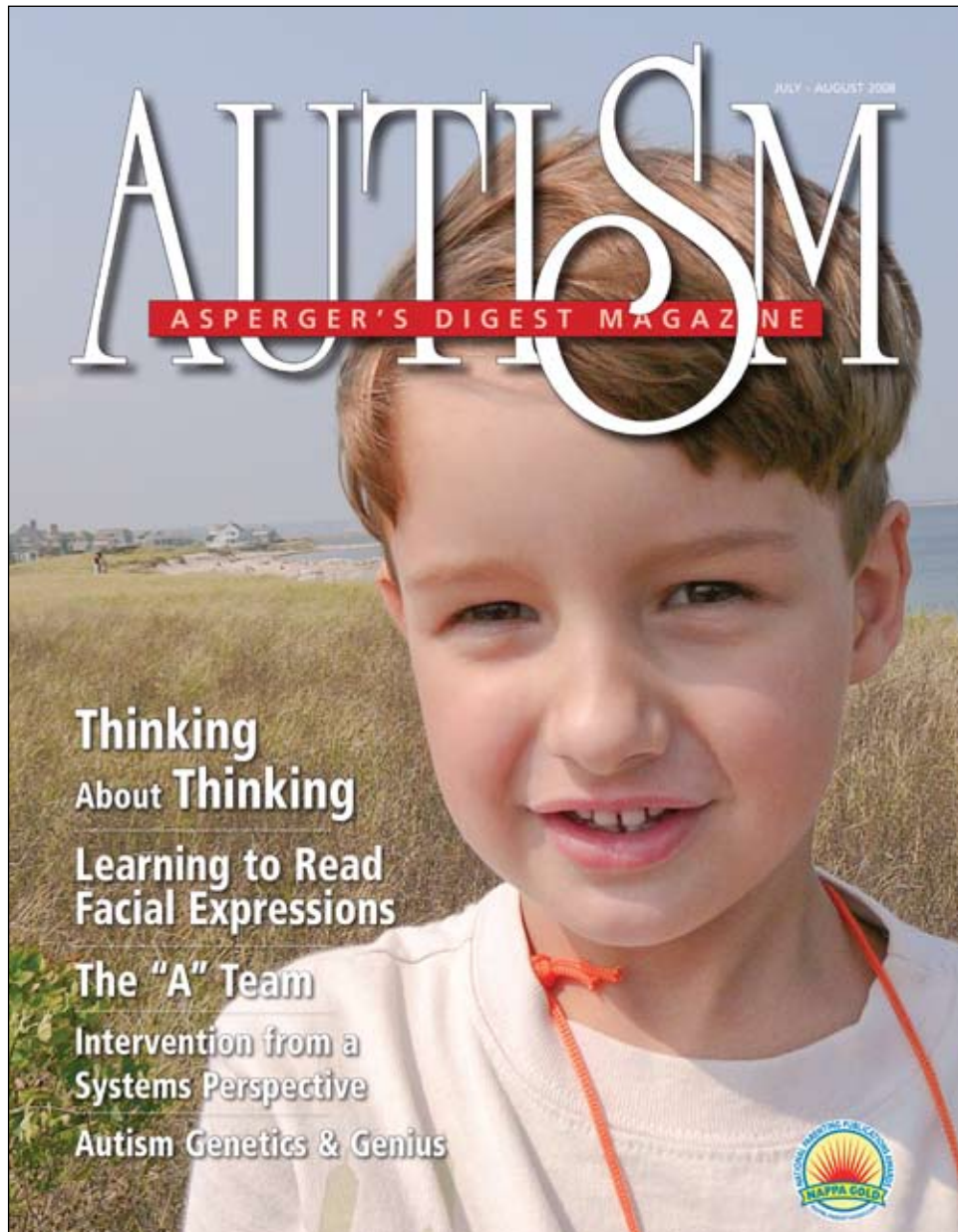
Asperger kids at BOTH autism and gifted children meetings. The Asperger child at the gifted meeting is doing well in school, but the Asperger child at an autism meeting may be in a poor special ed program, bored and getting into trouble because adults in his life hold lower expectations of his abilities. Unfortunately, in some cases, people are so hung up on the labels attached to students that they teach to these low expectations and aren't even curious to learn if the child is actually more capable. This is mostly likely to occur when the label is Aspergers instead of gifted but developmentally delayed.

Parents and teachers should look at the child, not the child's label, and remember that the same genes that produce his Aspergers may have given the child the capacity to become one of the truly great minds of his generation. Be realistic with expectations, but don't overlook the genius potential that may be quietly hiding inside, just waiting for an opportunity to express itself. 🐾

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Temple Grandin is an internationally respected specialist in designing livestock handling systems, and is the most noted high-functioning person with autism in the world today. She is the author of numerous books on autism and is a worldwide speaker on autism topics. *Unwritten Rules of Social Relationships*, coauthored with Sean Barron and Veronica Zysk, captured a prestigious Silver Award in the 2006 ForeWord magazine Book of the Year competition. Her previous book, *Animals in Translation* (2005) was on the New York Times Bestseller list. For more information visit www.templegrandin.com



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