

SPOTTED

Genetics do-over; iffy influences; high-tech education and more

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Genetics do-over

In 2014, a large twin study in Sweden suggested that genetics explains about **half the risk** for autism, but some experts expressed doubts about the study's mathematical model. Now the research team has reanalyzed the data using a more common approach and found that genes contribute to **83 percent of autism risk**. Their findings appeared 26 September in the *Journal of the American Medical Association*.

The investigators now say that one factor from their original analysis — time of diagnosis — may have artificially decreased estimates of the genetic contribution. One twin may have been diagnosed later than the other, making the twins discordant for autism at one time even if they both ultimately received a diagnosis. Even the new figure falls just below the 90 percent contribution reported in some twin studies, the researchers say, but is much higher than the 38 percent cited in a 2011 California twin study. The California study also **drew critiques** for the statistical methods used.

SOURCES:

Journal of the American Medical Association / 26 Sep 2017

The heritability of autism spectrum disorder

<http://jamanetwork.com/journals/jama/fullarticle/2654804>

Iffy influences

The **environmental influences** that contribute to autism are hard to pin down. In a wide-ranging piece, journalist Liza Gross summarizes the **state of the evidence**, from factors that affect

chemical tags on DNA to endocrine disruptors and parental age. Her in-depth piece was published 21 September in *Ensia*.

“To scientists, environmental risks include anything beyond the genome,” writes Gross. But Gross notes that “results from many of these studies have been mixed. Even when a study finds an association between an environmental factor and increased risk, it doesn’t imply causation, but suggests that factor *might* increase risk.”

SOURCES:

Ensia / 21 Sep 2017

What does the environment have to do with autism?

<https://ensia.com/features/environment-autism/>

Women’s struggle

Women on the spectrum **are underrepresented** in autism-related research, which means that their needs and strengths also fly under the research radar. A study of feedback from 20 women with autism shows that their biggest concerns are **unmet needs for services** — especially for mental health, living space and employment — and barriers to receiving care. The study was published 15 September in *Autism*.

SOURCES:

Autism / 15 Sep 2017

A qualitative study of the service experiences of women with autism spectrum disorder

<http://journals.sagepub.com/doi/abs/10.1177/1362361317702561>

Employment obstacles

Finding and keeping employment **can be incredibly difficult** for people on the spectrum. One man with autism describes it to *Slate* as “being at a precipice,” noting that his cognitive abilities **mask his autism-related disability**. Some big obstacles, *Slate* reported 22 September in an in-depth feature, include neurotypical expectations during interviews and other steps involving social interactions.

SOURCES:

Slate / 22 Sep 2017

The tricky path to employment is trickier when you're autistic

http://www.slate.com/articles/business/moneybox/2017/09/how_autism_complicates_the_path_to_employment.html

High-tech education

Communication-related **technology has been a boon** for people with autism. A look at how 472 high-school students with autism employ their tech tools at school **reveals a variety of uses**, including support for learning, organization, stress reduction and communication. The findings were published 22 September in *Autism*.

The investigators note that most research has focused on how children with autism use technology in the home, where the primary use is, not surprisingly, fun — for instance, playing video games. Technology at school also allows students on the spectrum to enjoy themselves — to engage with friends or, on the flip side, avoid socializing if they prefer.

On the negative side, 44 percent of the students in the study said that some of their classes do not permit technology use. One in 10 said that their school provides no technology, and 11 percent said their school has no wifi access.

SOURCES:

Autism / 22 Sep 2017

Technology use as a support tool by secondary students with autism

<http://journals.sagepub.com/doi/abs/10.1177/1362361317717976>

Expert error

Psychologist **Tony Attwood** is known for his expertise in autism, especially Asperger syndrome. (Asperger syndrome is now subsumed under the category 'autism' in the United States, but remains a distinct diagnosis elsewhere.) Yet somehow, Attwood **overlooked childhood signs** of autism in his son Will. Only after Will was battling substance abuse as an adult and was jailed for burglary did Attwood consider the possibility that his son might have autism. Watching home videos from Will's childhood helped his father reach his epiphany, the Australian Broadcasting Corporation (ABC) reported on 25 September.

SOURCES:

Australian Broadcasting Corporation / 25 Sep 2017

Asperger's syndrome: How 'Aspie' diagnosis slipped past world expert Tony Attwood

<http://www.abc.net.au/news/2017-09-25/how-tony-attwood-missed-aspergers-diagnosis/8960460>

Television treatment

The depiction of autism in movies and on television often **gets mixed reviews**. A spate of new television shows with lead characters on the spectrum offers ample fodder for critique. On 25 September in *Variety*, autism parent and *Variety* editor **Malina Saval** gave her perspective **on three of them**: “The A Word” from Israel and the U.S. shows “Atypical” and “The Good Doctor.” She says the shows are mostly accurate, but get a few things wrong as well.

SOURCES:

Variety / 25 Sep 2017

What TV gets right — and wrong — about autism

<http://variety.com/2017/tv/news/autism-atypical-the-good-doctor-the-a-word-1202556490/>

Autism model

Nina Marker was diagnosed with autism at age 15 after seeing a psychiatrist for depression. She also happens to be one of the **busiest fashion models** at Milan’s Fashion Week, strolling the catwalks for designers from Versace to Fendi. Marker seeks to use her glamorous profile to promote a positive image and awareness of autism. Posting on Instagram, she wrote that people with autism can “be successful and have a good time,” *Vogue* reported 25 September.

Part of her motivation for promoting autism awareness was the delay in getting her own diagnosis. “The lack of [awareness] has created some issues in my life that maybe wouldn’t have been there if my autism had been discovered earlier,” she told *Vogue*.

SOURCES:

Vogue / 25 Sep 2017

Milan fashion week’s biggest model wants to change the way we think about Asperger’s

<https://www.vogue.com/article/nina-marker-versace-model-on-fashion-autism-awareness>

Lifesaving lessons

Children on the spectrum have much **higher odds of drowning** than neurotypical children. Reasons for the increased risk include communication and motor-planning difficulties, but some **evidence suggests** that **swim-safety programs** tailored to children with autism may help, *STAT* reported 27 September.

SOURCES:

STAT / 27 Sep 2017

Lakes and pools can be deadly for children with autism. But tailored swim lessons can save lives

<https://www.statnews.com/2017/09/27/autism-children-water-swim-lessons/> **Journal of Autism and Developmental Disorders** / 01 Sep 2017

The effectiveness of aquatic group therapy for improving water safety and social interactions in children with autism spectrum disorder: A pilot program

<https://www.ncbi.nlm.nih.gov/pubmed/28864911> 09/01/2017

Travel accommodations

For people with autism, travel can be especially daunting. Yet some aspects, such as planning trip details, that may irritate neurotypicals are fun for people on the spectrum. CNN published a rundown on 26 September of the **pros and cons of travel** for people with autism and how the tourism industry is making some accommodations, such as designated quiet times and spaces in hotels and museums.

SOURCES:

CNN / 26 Sep 2017

How the world is changing for travelers with autism

<http://www.cnn.com/travel/article/travelers-with-autism/index.html>

News tips

Do you have a new paper coming out? Are you making a career move? Did you see a study or news story that you want to share? Send your news tips to **news@spectrumnews.org**.
