

SPOTTED

Early theory of mind; bizarre book defense; fake news and more

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WEEK OF MARCH 12TH

Early theory of mind

Armed with a Pixar short film and a huge stuffed animal, investigators got 3-year-olds to sit still long enough for lengthy brain imaging sessions. They also performed brain imaging in older children and adults, with the goal of tracking the development of regions related to ‘theory of mind,’ the ability to understand others’ thoughts and feelings. Some researchers argue that this ability is **minimized in autism**. The research team reported 12 March in *Nature Communications* that 3-year-olds already have developed distinct brain areas **related to theory of mind**. This ability was thought to appear later, at around age 4 or 5 years.

SOURCES:

Nature Communications / 12 Mar 2018

Development of the social brain from age three to twelve years

<https://www.nature.com/articles/s41467-018-03399-2>

Bizarre book defense

On 9 March in Spotted, we **noted a controversy** surrounding a 27 February essay published in *The Washington Post*. The essay was an excerpt from Whitney Ellenby’s book, “Autism Uncensored,” recounting how Ellenby physically wrestled with her son, creating a public scene as she forced him into a “Sesame Street Live” show.

The outcry, including in online comments on the essay, prompted her publisher to release a statement on 11 March that is sure to stir up **even more controversy**. Sample quote: “Any opinions based on that article are incomplete ... and make high-functioning literate people with

autism appear to be less than intelligent.”

SOURCES:

Koehler Books / 11 Mar 2018

Why Koehler books is publishing Whitney Ellenby's Autism Uncensored

<http://www.koehlerbooks.com/why-koehler-books-is-publishing-whitney-ellenbys-autism-uncensored>

More fake news

Using almost weary tones, the Associated Press published a statement 7 March, clarifying that U.S. federal **regulators have not announced** that vaccines cause autism. The news agency was responding to posts on some health websites, which had resurrected and misrepresented information about a 2005 label for a vaccine that hasn't been shipped since 2012.

The label, for the Tripedia diphtheria, tetanus and pertussis vaccine, listed autism as a possible adverse event. At the time, the U.S. Food and Drug Administration automatically added any reports from consumers to the list of possible events and included a statement that the reports did not “establish a causal relationship” to the drug or vaccine. The agency later changed its rules so that only events thought to be causally related to a drug or vaccine are included in the label.

The Associated Press says the statement is part of a partnership with Facebook to combat the circulation of inaccurate stories.

SOURCES:

Associated Press / 07 Mar 2018

FDA did not issue new statement on vaccines and autism

<https://www.apnews.com/cda2c13bc20d4a0794e4a1963dddccc3>

Qi, yin and yang

A survey of Korean clinicians to determine how they approach autism therapy has yielded findings that **might surprise Western practitioners**. Publishing 13 March in *BMC Complementary and Alternative Medicine*, investigators reported that more than one-quarter of Korean practitioners use herbal medicine, almost a fifth use body acupuncture, and 9 out of 10 use terminology to describe different autism-related ‘syndromes,’ including ‘qi,’ ‘yin,’ ‘yang’ and ‘fluid and humor diagnosis.’

SOURCES:

BMC Complementary and Alternative Medicine / 13 Mar 2018

A survey of Korean medicine doctors' clinical practice patterns for autism spectrum disorder: preliminary research for clinical practice guidelines

<https://bmccomplementalternmed.biomedcentral.com/articles/10.1186/s12906-018-2162-4>

Genetics of empathy

Autism researchers joined forces with a direct-to-consumer DNA testing company to find what twin studies already have shown: About 10 percent of our ability to **feel and show empathy** can be traced to genetics. The investigators, publishing 12 March in *Translational Psychiatry*, say that variants **associated with decreased empathy**, as measured with their in-house assessment tool, are tied to increased autism risk.

In addition to the autism-related findings, the researchers reported that genetics doesn't seem to underlie empathy differences between men and women. Women have higher empathy scores than men, but without a genetic basis, the difference must be due to social or hormonal influences, they say. They also found that scores on their in-house empathy measure track with the risk for schizophrenia and anorexia nervosa.

SOURCES:

Translational Psychiatry / 12 Mar 2018

Genome-wide analyses of self-reported empathy: correlations with autism, schizophrenia, and anorexia nervosa

<https://www.nature.com/articles/s41398-017-0082-6>

Facebook effect

People with autism experience happiness boosts from Facebook use, but not from Twitter use. In a study published 27 February in *Cyberpsychology, Behavior, and Social Networking*, researchers reported that these findings about **social media platforms** point to potential protective effects of Facebook use against depression and other mental health issues.

SOURCES:

Cyberpsychology, Behavior, and Social Networking / 27 Feb 2018

Social media use and happiness in adults with autism spectrum disorder

<https://www.liebertpub.com/doi/full/10.1089/cyber.2017.0331>

Fragile X complication

People with fragile X syndrome may be at an increased risk for **self-injurious behaviors** compared with those who have other syndromes involving intellectual disability, according to a report published 7 March in *Research in Developmental Disabilities*. In a review of 27 studies, investigators found that between 10 and 81 percent of people with fragile X show these behaviors, compared with 4 percent of people who have other conditions associated with intellectual disability.

SOURCES:

Research in Developmental Disabilities / 07 Mar 2018

How common are challenging behaviours amongst individuals with fragile X syndrome? A systematic review

<https://www.sciencedirect.com/science/article/pii/S0891422218300477>

Conference childcare

Many parents who've attended a scientific conference while juggling child-related logistics onsite or back home can relate: Parenting while conferencing is fraught with obstacles. Researchers writing 5 March in the *Proceedings of the National Academy of Sciences* **have some suggestions** for making the task easier. These include discounted registration for parents who can attend only part of a conference and onsite childcare.

SOURCES:

Proceedings of the National Academy of Sciences / 05 Mar 2018

Opinion: How to tackle the childcare—conference conundrum

<http://www.pnas.org/content/early/2018/03/01/1803153115>

The eyes have it

Are the eyes the windows to an autism diagnosis? Pupil responses to a rotating black-and-white cylinder differ between people with and without autism features, researchers reported 6 March in *eLife*. The investigators say that how much an observer's **pupils dilate and contract** as the

cylinder rotates from a black to white surface tracks with scores on an assessment of autism traits.

Although this study did not include people diagnosed with autism, the researchers hypothesize that the changes in pupil size would be even more pronounced in individuals on the spectrum. If so, they speculate, measuring this oscillation might aid diagnosis.

SOURCES:

eLife / 06 Mar 2018

Pupillometry reveals perceptual differences that are tightly linked to autistic traits in typical adults

<https://elifesciences.org/articles/32399>

Remote assessment?

Can autism be diagnosed from a distance? Researchers compared the reliability of **diagnosing autism through a videoconferencing** system versus in-person clinical workups. They found that the telemedicine approach is not as good as an in-person assessment but does capture about two-thirds of children on the spectrum, they reported 12 March in the *Journal of Autism and Developmental Disorders*.

The researchers say the findings support the feasibility of telemedicine for assessing autism in children. This may be a good option for families that live far away from clinical services.

SOURCES:

Journal of Autism and Developmental Disorders / 12 Mar 2018

Early identification of ASD through telemedicine: Potential value for underserved populations

<https://link.springer.com/article/10.1007/s10803-018-3524-y>

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**.
