

SPOTTED

Transcranial treatment; maternal inflammation; autism ants and more

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Transcranial treatment

The use of **transcranial direct current stimulation** to the brain as an autism intervention has generated skepticism. But it seems to improve performance on **working memory tasks** in adults with autism, according to a small study published 28 July in *Molecular Autism*. Working memory is a buffer in the brain that allows people to keep things in mind for short periods of time. The effects transferred to an unrelated task shortly afterward, the researchers reported.

SOURCES:

Molecular Autism / 28 Jul 2017

Balanced bifrontal transcranial direct current stimulation enhances working memory in adults with high-functioning autism: a sham-controlled crossover study

<https://www.ncbi.nlm.nih.gov/pubmed/28775825>

Maternal inflammation

Interleukin-6 is an inflammation-related molecule that may link **maternal infections and autism**. Researchers now report an association between high maternal interleukin-6 levels and an **enlargement of the amygdala** — a hub of emotion in the brain — in newborns on one side of the brain. These changes relate to reduced impulse control in the children at age 2. The findings were published 19 June in *Biological Psychiatry*.

Children whose mothers had higher interleukin-6 levels during pregnancy also had unusually 'strong,' or active, connections from the amygdala to regions on both sides of the brain. These connections involved areas related to learning and memory, and sensory processing.

SOURCES:

Biological Psychiatry / 19 Jun 2017

Maternal systemic interleukin-6 during pregnancy is associated with newborn amygdala phenotypes and subsequent behavior at 2 years of age

<http://www.sciencedirect.com/science/article/pii/S0006322317316700>

Autism ants?

Ants and autism appear to have little in common — but appearances are deceiving. Biologist **Claude Desplan** of New York University and his team have used CRISPR to **delete genes related to ant communication**. Desplan says that their success in producing science's first mutant social insect opens the door to a better understanding of communication-related conditions in people, including autism, reported *Big Think* on 13 August.

SOURCES:

Big Think / 13 Aug 2017

Scientists use CRISPR gene editing to create the world's first mutant social insect

<http://bigthink.com/paul-ratner/scientists-create-first-ever-mutant-ants>

'Atypical' critics

The new Netflix series "Atypical" focuses on a teen boy with autism and his family and dating life. Critics, including some **writers with autism**, have found the portrayal and storyline wanting, reported *NPR* on 11 August. Concerns include scenes that seem to invite the audience to laugh at the main character's autism-related behaviors.

In one scene, the teen, a boy named Sam, wears headphones in public. The scene was supposed to be funny. But people with autism often use headphones to **cut down on aural inputs**, so they are a disability tool, not a punchline.

Mickey Rowe, an actor on the spectrum, told *NPR* that an absence of input on the series from people like him leaves the feeling that its producers are "allowing people without autism to make fun of people with it."

SOURCES:

NPR / 11 Aug 2017

Netflix, ABC portrayals of autism still fall short, critics say

<http://www.npr.org/sections/health-shots/2017/08/11/542668400/netflix-abc-portrayals-of-autism-still-fall-short-critics-say>

Person-first controversy

An ongoing debate in the autism and wider disability community is the use of ‘person-first’ language, which places the person before the condition (for example, “a girl with a disability”). Person-first has long been the norm, but a growing, if not uniform, chorus in the disability community is calling for **‘identity-first’ language** (“a disabled girl”), according to an 8 August essay in *Bustle*.

The essay’s author, **Jennifer Thorpe**, noted that some people might view such discussions as “semantic quibbling.” But for people on the spectrum, said Thorpe, “identity-first language is popular because they often feel it’s such a strong part of who they are, not something that’s happened to them.”

SOURCES:

Bustle / 08 Aug 2017

What is identity-first language, and should you use it?

<https://www.bustle.com/p/what-is-identity-first-language-should-you-use-it-74901>

Tag team

In 2013, a Salk Institute team mapped chemical tags on DNA called methyl groups throughout the genome during key periods of human development. The information is expected to enhance scientists’ understanding of atypically developing brains. Now a group from Salk has identified so-called methylation patterns that **distinguish different neuron clusters** in both people and mice, including some types that boost neuronal activity and are unique to people. The mapping yielded 21 distinct subtypes in people and 16 in mice. The findings were published 11 August in *Science*.

SOURCES:

Science / 11 Aug 2017

Single-cell methylomes identify neuronal subtypes and regulatory elements in mammalian cortex

<http://science.sciencemag.org/content/357/6351/600.full>

False beliefs

True or false: A common sign of dyslexia is seeing a letter backwards. If you answered ‘true,’ you’re wrong but you’re in good company. Some **50 percent of people** with neuroscience training believe this ‘neuromyth,’ among others, according to a survey of the public, educators and neuroscientists published 10 August in *Frontiers in Psychology*.

SOURCES:

Frontiers in Psychology / 10 Aug 2017

Dispelling the myth: training in education or neuroscience decreases but does not eliminate beliefs in neuromyths

<http://journal.frontiersin.org/article/10.3389/fpsyg.2017.01314/full>

Outdated justice

The U.S. justice system hasn’t kept up with the current understanding of autism and other developmental disabilities, according to an opinion piece published 15 August in *Dallas News*. This **lack of proper training and education** can derail justice for people with autism at various stages, from contact with law enforcement to judges and jails, contributor **Shaheen Pasha** argues.

SOURCES:

Dallas News / 15 Aug 2017

The U.S. justice system has an autism problem

<https://www.dallasnews.com/opinion/commentary/2017/08/15/us-justice-system-autism-problem>

Leaving London

Liz Pellicano, director of the Centre for Research and Autism in Education at University College London, will be **leaving the institution** for a post at Macquarie University in Sydney, Australia. Pellicano has been at the center for more than four years, during which time it has “cemented its position as a global leader in autism research and educational practice,” according to a statement from the center.

SOURCES:

The Centre for Research and Autism in Education / 14 Aug 2017

A new CRAE chapter

<http://crae.ioe.ac.uk/post/164175028993/a-new-crae-chapter>
