



Autism Awareness Month

Mark Bandstra

Heather Crawford

Tom Gallant

Ernst Sichtermann



April is Autism Awareness Month

- + April is recognized as Autism Awareness (or Acceptance) month
- + The goal is to create connections and awareness to help everyone in the Autism community to live fully, with the support they need, when they need it
- + This is inclusive of Autistic individuals, as well as the networks of support surrounding them

What is Autism?

- + This is not such an easy question – no two people with autism spectrum disorder (ASD) have the same set of symptoms

“If you’ve met one person with autism,
you’ve met one person with autism.”

Dr. Stephen Shore, Autism Advocate

Symptoms of Autism

Social communication challenges

- Differences in how people perceive their environments and those around them
- Communication barriers due to how people process and verbalize information
- Difficulty with eye contact, facial expressions, tone and volume of voice
- A need to maintain rigid patterns of ritual that can interfere with social interaction

Restricted, repetitive behaviors

- Repetitive motions with objects
- Staring at lights or objects
- Ritualistic behaviors (e.g. lining up objects, touching objects in a set order)

<https://www.healthline.com/health/autism-in-adults>
<https://www.autismspeaks.org/what-are-symptoms-autism>

STEM and Autism Spectrum Disorders

- + There is significant evidence that students with an ASD had the highest STEM participation rates, but lower than average college enrollment rates
 - One major study considered large national data set of the National Longitudinal Transition Study-2
 - Young adults with ASD were significantly more likely to major in STEM than their peers (34.31% compared to 22.8% for general population)
 - Young adults with ASD may represent untapped potential in STEM fields

Wei, X., Yu, J.W., Shattuck, P. *et al.* Science, Technology, Engineering, and Mathematics (STEM) Participation Among College Students with an Autism Spectrum Disorder. *J Autism Dev Disord* **43**, 1539–1546 (2013). <https://doi.org/10.1007/s10803-012-1700-z>

STEM and Autism Spectrum Disorders

- + There is a correlation between rates of autism and STEM careers of their parents and grandparents
- + Parents more frequently share the same cognitive phenotype (“folk physics” vs. “folk psychology”) as their affected children, to a lesser degree
- + ASD correlates to normal or superior “folk physics” skills, with impaired “folk psychology” skills
- + Result is a prevalence of parents in STEM-connected fields

BARON-COHEN, S. , BOLTON, P. , WHEELWRIGHT, S. , SCAHILL, V. , SHORT, L. , MEAD, G. & SMITH, A. (1998) 'Does Autism Occur More Often in Families of Physicists, Engineers, and Mathematicians?', *Autism* 2 (3): 296-301.

STEM and Autism Spectrum Disorders

- + In a study of almost 500k individuals, the link between autistic traits (as measured by the Autism Spectrum Quotient) and STEM fields (as well as gender) was confirmed
- + Unsurprisingly, many historic scientific figures would likely be diagnosed with ASD today
 - Albert Einstein was non-verbal until 4 years old, exhibited repetitive behaviour and was uncomfortable with physical contact
 - Newton was quiet, sometimes reclusive, and held to firm schedules
 - Tesla had a number of phobias, an obsession with the number three, and an extremely long (obsessive) attention span

Ruzich, E et al. [Sex and STEM Occupation Predict Autism-Spectrum Quotient \(AQ\) Scores in Half a Million People](#). PLOS ONE; 21 October 2015



Takeaway

Recognizing that the majority of us know people, and/or are ourselves, on the autism spectrum can help us to be aware and sensitive to the neurodiversity of our community

We are all different, and we all have special skills and areas for improvement – acknowledging this and helping individuals use their talents benefits us all

Sometimes a moment of extra patience can make a huge difference to the experience of a colleague

Don't rush to judgment

IDEA Resources

Previous Autism Awareness Month Events

[April 23, 2019 Neurodiversity Panel Event: National Autism Awareness Month](#)
[October 30, 2017 Brown Bag Talk on Autism Inclusion in the Workplace](#)

- + URM Job Posting funding
- + [Luminary Cards](#)
- + IDEA SPOT Award Program
- + [LeanIn cards "50 ways to fight bias"](#)
- + idea.lbl.gov

Consider joining the Council!

- All-volunteer effort
- Looking for people from all roles and areas of NSD

Share your ideas for topics or other feedback:

NSD-IDEA-Council@lbl.gov