

NEWS

Intense interests may interfere with social development in autism

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Children with autism may be so consumed by their interests that they don't pay attention to social information. That's the upshot from unpublished results presented today at the **2016 Society for Neuroscience annual meeting** in San Diego.

The results add a twist to the **social motivation hypothesis of autism**, which holds that children with autism fail to develop social skills because they lack interest in all things social.

“Social motivation theory is very popular,” says **Kathryn Unruh**, a graduate student in **James Bodfish’s** lab at Vanderbilt University in Nashville, Tennessee, who presented the results. “But it doesn’t really address what these kids are doing — just what they’re not doing.”

Unruh and Bodfish showed 33 adolescents with autism and 32 typical adolescents pairs of images — a face and an object — on a screen. They then used **eye-tracking** technology to determine when and for how long they looked at each image in a pair.

Sometimes the object related to a typical ‘restricted interest’ of people with autism: a train, a stopwatch or an airplane. In other pairings, the object was something else: a piece of furniture, pair of gloves, guitar or piano.

People with autism spent more time looking at all of the objects and less time looking at faces than controls did. They also stared at faces more briefly than controls.

These results are in line with other eye-tracking studies showing that people with **autism prefer looking at objects over faces**.

Inordinate interest:

When people with autism viewed an image of a face paired with a neutral object, however, they directed their gaze to the face just as quickly as controls did. Only when the face was paired with an object related to restricted interests did people with autism take their time finding the face.

This result suggests that social deficits in autism may not stem from a bias against social information but rather a bias for specific kinds of non-social information.

The researchers plan to determine the timing of this bias by testing the pictures in younger children with autism. If these children show gaze patterns like those of the adolescents, clinicians may want to look closely at inordinate interest in specific non-social stimuli as a red flag for autism risk, Unruh says.

Early intervention might prevent restricted interests from becoming so entrenched that they impede social development.

The difference between a lack of social interest and excessive interest in non-social information could have implications for therapy. Some autism therapies try to leverage children’s restricted interests as rewards for desired behaviors. That strategy could backfire.

By reinforcing these interests, “are we really just increasing their non-social motivation?” Unruh asks. “We may not be addressing the root of the problem.” Therapies that build on restricted interests as an opening to social engagement may be more effective.

For more reports from the 2016 Society for Neuroscience annual meeting, please [click here](#).