

NEWS

# Geometric gaze

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People or pattern: Which image do you prefer?

Some children with autism prefer to look at geometric patterns rather than at 'social' images of other children — and this tendency is obvious as early as 14 months of age, according to a poster presented today at **IMFAR 2010** in Philadelphia.

The research tool in this case is quick and cool: a one-minute split-screen video (demonstrated to me on an iPad) with geometric patterns on one side and children performing dance and yoga moves on the other. "It's ridiculously simple," says the lead researcher Karen Pierce, assistant professor of neurosciences at the University of California, San Diego.

When I saw the video, I couldn't keep my eyes off the contorting children long enough to see the screensaver images — and this is exactly what happens in every single typically developing child she's tested, Pierce says. But about 40 percent of children with autism look more at those geometric images. The data have been submitted for publication.

It's well known that children with autism prefer to look at objects than at people, and there are many reports of their fascination with, for example, trains and spinning toys. What's interesting about this tool is that it is predictive. The researchers studied a total of 110 kids ranging in age from 14 to 42 months, referred to them by 150 doctors in the San Diego area. Over the course of the study, the kids who preferred the geometric images all went on to be diagnosed with autism.

This doesn't mean that the video is a diagnostic tool, of course. For one, it isn't very sensitive: 60 percent of kids with autism look at the social images, just like typically developing kids do. But the tool still provides valuable information because it is "fabulously specific," as Pierce puts it: only the kids with autism look at the geometric side.

The researchers have imaging screens and blood samples from all the children in the study and they intend to use this information to characterize the subgroup of kids who prefer geometric patterns. Pierce also has big plans for the video. She says she wants it to be made available to clinicians who can easily test their young patients. "I want this to have worldwide impact," she says.

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