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By SUSAN DONALDSON JAMES

Nov. 10, 2009

The magician placed a coin atop an airtight rubber seal on a cup and -- abracadabra -- the shiny piece fell to the bottom of the cup.

But he didn't fool 8-year-old Stephen Shore, who was the only one among his fellow Boy Scouts who saw through the magic trick.

"People didn't see the slit in the piece of rubber," said Shore, now 48 and an assistant professor of special education teacher at New York's Adelphi University. "I went up and just kind of pushed my finger into the slit."

Illusions are the stock and trade of magicians but researchers at the Barrow Neurological Institute in Phoenix, Ariz., want to know why people like Shore, who fall along the autism spectrum, are not so easily fooled.

Shore has lived his entire life with autism, a neurological disorder often marked by joint-attention deficits, or difficulty reading social signals; the same kind that a magician deliberately uses to throw attention away from the deception.

"Someone on the autism spectrum is looking exactly where the magician doesn't want him to look," Shore said.

Scientists Susana Martinez-Conde and Stephen Macknik, co-authors of the upcoming book "Neuro Magic," are seeking funding to begin research that they hope will use magic as a tool for the diagnosis and treatment of autism -- despite some parents' fear that such research is too limited in scope.

"What magicians do is get people to attention with an incredible degree of depth and labor," said Macknik, director of Barrow's Laboratory of Behavioral Neurophysiology.

"Misdirection is a bit of a misnomer -- that the magician is trying to get you not to pay attention," he said. "But that's not the case. They want to control where you are especially paying attention."

An estimated 1 in 150 children -- or about 1 percent of all children -- are diagnosed with autism spectrum disorders, a group of developmental disabilities that can cause significant social, communication and behavioral challenges, according to the Centers for Disease Control and Prevention in Atlanta.

The CDC considers autism an urgent public concern and says the sheer numbers warrant a concerted national response.

But, so far, there are no medical tests so doctors must rely on a child's behavior to



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Shore has lived his entire life with autism,... [View Full Caption](#)



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make a diagnosis, usually by age 2. Early detection is key, experts say, so children can get [intervention therapies](#).

Martinez-Conde, the study's lead investigator, has devoted her research to eye movements in the field of [visual neuroscience](#).

Humans share information and grasp the thoughts and intentions of others through eye contact and gestures. Long before infants speak, they communicate and learn by following the gaze of others and use their own eye contact and gestures to direct those around them.

Autistics Have Joint-Attention Deficits

"Joint attention" is a term psychologists use to indicate how people pay attention jointly in social situations.

When one person gestures or uses his or her eyes to point, the other's eyes reciprocate and follow, unconsciously. [Magicians](#) take advantage of this instinct to covertly misdirect attention.

"When someone walks down the street and looks in the direction of something, they are going to get a circle of people looking up pretty soon," Martinez-Conde said.

Scientists think humans are hard-wired for these [directional eye movements](#), which are important for survival.

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leah_kelley 3:24 PM EDT Jun 19, 2011
I am mom to a 12 year old boy with autism. I have seen the benefits in teaching him to do magic... which is slightly different than the topic about which you are reporting... Just in case you are interested in a different perspective...You might like this related post:
<http://30daysofautism.wordpress.com/2011/05/28/the-magic-of-perspective-and-the-perspective-of-magic-teaching-sleight-of-mind/> Thank you Leah Kelley

ragdol66 10:38 AM EST Nov 13, 2009
My son was not diagnosed with PDD/Autism until he was 17yrs old even though his father and I asked the doctors repeatedly why he was so far behind other children his age. Now it is almost impossible to find out how to treat or what to do because of this condition not being caught in the earlier stages. I would like to know any information you could come up with on how to treat an adult that has just been diagnosed with PDD/Autism. Thank you very much for anything you can dig up for me and my son. Sincerely, Stacy R

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