

Socially Awkward? Check Your Genes

By Michael Torrice
ScienceNOW Daily News
16 November 2009

[Enlarge Image](#)



Mind reader. This and 35 other sets of eyes gauged students' empathy in the Reading the Mind in the Eyes Test.

CREDIT: AUTISM RESEARCH CENTRE/UNIVERSITY OF CAMBRIDGE

Some people can read your face and know you've had a bad day. Others seem oblivious. Now, researchers have pinpointed a genetic explanation for why some people are better empathizers than others.

Empathy is crucial for our everyday social interactions. Neuroscientists have focused on a possible role for oxytocin, a hormone that seems to help us get along. Human volunteers [trust](#) others more to dole out money fairly when under the influence of the hormone, for example. And recently, scientists have linked a variation, or polymorphism, in the gene that codes for the oxytocin receptor to autism, a disorder defined by impaired social interactions.

Neuropsychologist Sarina Rodrigues of Oregon State University, Corvallis, and Laura Saslow of the University of California, Berkeley, and colleagues decided to look for a connection between this polymorphism, called rs53576, and empathy differences in the general population. To measure empathy in 192 college students, the researchers used a standard evaluation called the Reading the Mind in the Eyes Test. Each subject looks at images of a movie still cropped to show only the actor's eyes. For each image, the researchers display four words, such as "playful" or "comforting," and ask the students to pick the word that best matches what the person is thinking or feeling. Autistic patients score poorly on this test, and past studies have shown that people who receive a snort of oxytocin perform better than those who receive a placebo.

The scientists divided the students into two groups based on a single difference in the genetic alphabet of their rs53576 polymorphism. Volunteers whose two copies of the receptor gene had the "G" version of rs53576 made about 23% fewer mistakes--equivalent to two questions on the test--than did those with an "A" version, the type commonly seen in autistic patients. That suggests that the "G" group could read people's emotions better from facial cues, the team reports online today in the *Proceedings of the National Academy of Sciences*. The researchers tried to control for environmental factors by ensuring that volunteers in both groups had equally social parents. The results show that "some of us have a natural capacity to be more empathic than others and that some people are more naturally closed-off and detached," Rodrigues says.

The work is "one solid step forward" in understanding the role of oxytocin in human social behavior, says neuroeconomist Paul Zak of the Claremont Graduate University in Claremont, California, who has studied the effects of oxytocin on economic decisions. "This is a really nice example where the variation [in social behavior] that we see in animals can now be traced back and even seen in people," adds neuroscientist Larry Young of Emory University in Atlanta. But because polymorphism studies sometimes can't be replicated, Young remains cautious about the results until they can be repeated in a larger group.

([skip to comments for this article](#))

[Previous Article](#) | [Next Article](#)

Comments

Thanks for your feedback. Please keep it polite and to the point.

Echo 0 Items

[Admin](#)

Social Networking by

	From <input type="text" value="Your name here..."/>
	To <input type="text" value="This Page"/>
What's on your mind...	
Follow	<input type="button" value="Cancel"/> <input type="button" value="Post"/>