

Autism assignment



Mirror neurons are a particular kind of neuron that many animals, including people, have. They fire when an animal acts and, simultaneously, observes another animal doing the same action. The neuron then “mirrors” the behavior of the observing animal in its firing. It is believed that, when functioning normally, mirror neurons help people acquire skills, mimic or imitate others, and help with language formation. But autistics, it appears, according to research done by Dapretto et al (2006) among others, have improper or non-existent mirror neuron activity. Dapretto et al (2006) gave autistic and non-autistic students a task to do while using an fMRI. Children with autism were able to do the chosen task just as well but showed no mirror neuron activity. This might mean that autistics learn how to do things, model things from others, and so on in very different ways. Further, the researchers found that activity in the area predicted social skills: The less activity, the worse the patients' social skills. It may be that part of the difficulty that autistics have relating to others, understanding their emotions, understanding why they don't do “rational” things, and other difficulties is the lack or improper functioning of these mirror neurons. The brain is simply less capable of handling the tasks that normal people take for granted, like being able to learn how to do something by watching other people doing it. What this indicates is that hypersensitivity may be partially caused by a failure of mirror neurons. Though the science is unclear thus far as to the causes, the fact that there is a basic neuronal deficit means that instructors need to learn how to teach autistics differently, since regular modeling techniques might be more difficult and might incur their hypersensitivity issues. And instructors need to teach autistics to be empathic to the needs of others in different ways than they normally would, since the autistic children

will have to be forming that skill through wholly different means than normal.

Works Cited Dapretto M, Davies MS, Pfeifer JH, Scott AA, Sigman M, Bookheimer SY, Iacoboni M. (2006). Understanding emotions in others: mirror neuron dysfunction in children with autism spectrum disorders. *Natural Neuroscience*. January; 9(1): 28-30.