

Weak brain links 'explain autism'

The difficulties people with autism have in relating to others could be due to poor communication between brain areas, scientists suggest.

It may explain why they do not interact well, as the weak links mean they benefit less from social situations.

It had been thought that their lack of social skills was due to abnormalities in particular brain areas.

The study in Neuroimage, carried out by University of London researchers, compared brain scans of 32 people.

The face processing areas of the brain are not well connected to those parts of the brain that control attention

Dr Geoff Bird, University College London

The researchers took brain scans of 16 people with autism spectrum disorders (ASD) and above-average IQs, as well as those of 16 unaffected volunteers.

They were shown four images on the screen - two of houses and two of faces. They were then asked to concentrate on either the faces or houses and decide if they were identical.

Scans showed there were marked differences in the brain activity of the two groups.

In the control group, paying attention to pictures of faces caused a significant increase in brain activity.

But for people with ASD, paying attention to faces made no impact at all on the brain, explaining their lack of interest in faces.

Both groups had the same reaction to houses.

Dr Geoff Bird, at the UCL Institute of Cognitive Neuroscience, who led the research, said: "The standard view of social problems in ASD is that there is a problem in the part of the brain that processes faces.

"Our research suggests that this is not the real problem - it seems to be that paying attention to faces doesn't lead to the normal increase in brain activity.

"This is because the face-processing areas of the brain are not well connected to those parts of the brain that control attention - such as the frontal and parietal regions.

"We all know that it is harder to pick a face out of a busy crowd, for instance, but when we do find the right face and pay attention to it, we are easily able to tune-out all the other distractions and focus on that one face.

"It seems that, for people with ASD, paying attention to a face is much harder to do and doesn't have the same effect."

Richard Mills, director of research for the National Autistic Society, said: "We welcome this research, which examines the underlying mechanisms related to complex 'instinctive' social responses.

"We know that many people with ASD have particular difficulties in this area and we are hopeful that an improved understanding of these processes will enable people to receive appropriate and helpful support."

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