The Autism Spectrum

Individuals who are diagnosed with an Autism Spectrum Disorder (ASD) typically demonstrate repetitive, restricted, and stereotyped patterns of behavior, and difficulties with social interactions communication, all of which impact functioning across environments. These differences are apparent during early development and are seen in adulthood.

Individuals with ASD also show different neuropsychological strengths and weaknesses than their neurotypical counterparts. These differences are believed to be related to the observed behaviors that characterize ASD.

We are looking for individuals who have close relatives with ASD and who demonstrate characteristic cognitive strengths and weakness associated with ASD or adults who have been diagnosed with an ASD and who are interested in participating in research to understand how individuals with ASD understand, or process, pictures of people and objects.

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Face Recognition in Autism Spectrum Disorders

A study by the
Riesenhuber Laboratory for Computational Cognitive Neuroscience,

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in cooperation with
Children's National Medical Center
and
The Center for Autism Spectrum Disorders

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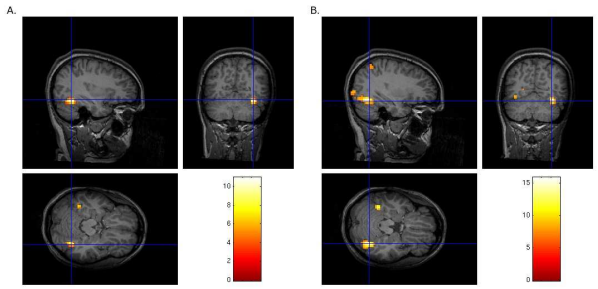
Our study

The purpose of our project is to explore the neural mechanisms of face processing in neurotypical individuals and individuals with Autism Spectrum Disorders (ASD) using behavioral and fMRI experiments. We hope to better understand how the brains of individuals in these groups work when looking at pictures of faces and objects.

Differences in social cognition are one of the defining features of autism, and face processing is an important component of social interaction. We hope to use research on face perception to explore more general differences between neurotypical and ASD individuals.

The data we collect will help us meet our goal of improving therapeutic intervention by describing the unique cognitive patterns that characterize ASD.



The Brain's "face area", working to understand what we see

What will I do?

Diagnostic testing may be conducted at the Rockville outpatient clinic of Children's National Medical Center to assess characteristics of ASD and thinking skills, which takes approximately 2 hours. This may also include an interview with a subject's parent.

Volunteers who meet the study criteria will then be invited for a second session at Georgetown University Medical Center in Washington, DC. In the behavioral portion of the study, you will watch images presented on a computer screen and respond by pressing buttons. In the fMRI portion you will be asked to lie still in a large device that measures your brain activity while you watch and respond to images. Individuals can receive a picture of their brain at the end of the session. These studies take a total of about 2-4 hours and can be split into two visits if desired.

You will be paid $20/hour for behavioral sessions and $40/hour for fMRI sessions. Reimbursement for travel expenses and free parking will be provided. We will have follow-up studies that you may elect to participate in.

Participate

We are looking for adults who have been diagnosed with an autism spectrum disorder to participate in this study, or who show similar characteristics and have a relative with ASD.

Criteria for participation include

- 18-60 years old
- normal (80+) IQ
- normal or corrected-to-normal vision (glasses/contacts)

You cannot participate if you:

- have a history of substance abuse
- have been diagnosed psychiatric or neurological disorders other than those under study
- take certain stimulant medications, such as Ritalin, on a daily basis.
- have metal implants, screws or devices in your body, including orthodontic braces.

For more information:

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