

Neural networks underlying emotion word processing in autism and psychopathy: an fMRI study

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The primary objectives of this study are: 1) to determine brain areas that are differentially involved in the processing of emotional words in the three groups: ASD, psychopathy and a matched group of healthy controls; 2) to determine whether...

Ethical review	Approved WMO
Status	Will not start
Health condition type	Psychiatric disorders NEC
Study type	Observational invasive

Summary

ID

NL-OMON38863

Source

ToetsingOnline

Brief title

Processing of emotion words in ASD and psychopathy

Condition

- Psychiatric disorders NEC

Synonym

autism; psychopathy

Research involving

Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Sint Radboud

Source(s) of monetary or material Support: NWO Talent program

Intervention

Keyword: ASD, emotion, language, psychopathy

Outcome measures

Primary outcome

1) Performance on reward/punishment learning task and ToM tests; 2) Emotional valence ratings of words; 3) fMRI data obtained during passive reading of neutral and emotional words and active emotional valence judgment

Secondary outcome

n/a

Study description

Background summary

Despite being different disorders, autism and psychopathy are both characterized by impairments related to empathy and emotion understanding. Studies suggest that attention and memory for emotional stimuli may be impaired in both groups as well. A model proposed by Blair suggests that different functions of the amygdala are impaired to a different degree in autism and psychopathy. However, no study to date directly compared processing of emotional stimuli in those two groups.

Study objective

The primary objectives of this study are: 1) to determine brain areas that are differentially involved in the processing of emotional words in the three groups: ASD, psychopathy and a matched group of healthy controls; 2) to determine whether performance on Theory of Mind tests and reward/punishment learning reliably dissociates the three groups;

Study design

This is a case-control study. In the first part of the study, the participants perform two Theory of Mind (ToM) skill tests and a reward/punishment learning task. In the second part, participants read neutral and emotional words

presented visually on the screen while lying in a MRI scanner.

Study burden and risks

The study does not involve invasive measures. The first part consists of a number of behavioral tests that last for about 3 hours (including 1.5 hours for the IQ testing) and is not associated with any risks or side effects. The second part consists of the session in the MRI scanner and lasts for about 1 hour. The Donders Institute has a lot of experience with very similar studies. The risks associated with the study procedures are negligible and the burden is minimal. There is no therapeutic benefit associated with the study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

- 1) Age is between 18 and 50 years
- 2) Dutch is a native language
- 3) Vision is normal or corrected to normal
- 4) IQ is 80 or higher
- 5) male gender
- 6) a formal diagnosis of ASD (for ASD group), psychopathy (for psychopathy group), absence of any known neurological or psychiatric disorder (for healthy control group)

Exclusion criteria

- 1) history of brain surgery or brain trauma
- 2) neurological disorders such as epilepsy
- 3) use of antipsychotic medication
- 4) metal in the body

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Other

Recruitment

NL	
Recruitment status:	Will not start
Enrollment:	75
Type:	Anticipated

Ethics review

Approved WMO

Date: 16-01-2014

Application type: First submission

Review commission: CMO regio Arnhem-Nijmegen (Nijmegen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL45017.091.13