A common brain area for representation of self and ingroup members

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Other condition
Study type	Observational non invasive

Summary

ID

NL-OMON35075

Source
ToetsingOnline

Brief title
Self and ingroup faces

Condition

- Other condition

Synonym
nvt

Health condition

gezond brein

Research involving
Human

Sponsors and support

Primary sponsor: Universiteit Leiden
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: face, ingroup, outgroup, self

Outcome measures

Primary outcome

Brain activation as measured by MRI

Secondary outcome

N/A

Study description

Background summary

Social identity is the part of identity that is derived from membership in groups and social categories (e.g., gender, ethnicity). The search for positive social identity is a chief factor in important social phenomena like stereotyping, prejudice and discrimination. Theoretically, social identity has been conceptualized as *the inclusion of the group in the self*. In the current work we address the social-neuroscientific basis of this conceptualization, by borrowing from the literature on *self face recognition*. In this literature, specific brain regions have been identified that are associated with the perception of one*s own face. Can it be the case that people who are highly identified with the group (i.e., for whom the concepts of the self and the group are largely overlapping) will activate the same brain regions when they see an in-group member than when they see a picture of themselves? This is the main question we aim to answer with the current study.

Study objective

The primary objective of this study is to understand whether there is a common brain area for representation of the self and ingroup members. To this end, we will acquire behavioral and fMRI data of 24 healthy students of Leiden University (aged 18-25 years).

Study design

In a pre-study we will invite 50 subjects, take a picture of their face and measure their ingroup identification. The highest-identifiers (n =12) and lowest-identifiers (n =12) will be asked to participate in the main experiment. In phase 1 of the experiment, subjects will repeatedly view pictures of students* faces unknown to them, and learn which students are from Leiden University (ingroup) and which from another university (outgroup). In phase 2, their knowledge of these associations is tested and further strengthened (using feedback) until they reach a fixed learning criterion. In phase 3, inside the scanner, subjects again repeatedly view all face pictures, pictures of themselves, and pictures of a familiar other, while we collect functional magnetic resonance imaging (fMRI) signals. We will examine contrasts (1) self vs. familiar other; and (2) ingroup vs. outgroup, evaluate whether these contrasts yield overlapping brain activations and whether this depends on subjects* degree of ingroup identification.

Study burden and risks

There are no known risks associated with participating in an MRI study. This is a noninvasive technique involving no catheterizations or introduction of exogenous tracers. Numerous children and adults have undergone magnetic resonance studies without apparent harmful consequences. Some people become claustrophobic while inside the magnet and in these cases the study will be terminated immediately at
the subject's request. The only absolute contraindications to MRI studies are the presence of metal in the body, like intracranial or intraocular metal, or a pacemaker. Relative contraindications include pregnancy and claustrophobia. Subjects who may be pregnant, who may have any metal in their body will be excluded because of potential contraindications of MRI in such subjects. Although there is no direct benefit to the participants in the proposed research, there are possible benefits to society from the potential knowledge gained from this study: This study will be the first functional imaging study that compares brain areas that are activated by images of self, ingroup members and outgroup members.

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

Adult subjects (18-25 years of age) with no history of neurological disorder/disease and no counter-indications to MRI will be included in this study. All participants will be right-handed native Dutch speakers with normal vision or contact lenses.

Exclusion criteria

Potential participants will be prescreened for contra-indications for fMRI, which include metal implants, heart arrhythmia, claustrophobia, and possible pregnancy (in adult females). They will additionally be prescreened for head trauma, premature birth, learning disabilities, and history of neurological or psychiatric illness and/or use of psychotropic medications. Finally, left-handed individuals will be excluded from the study because some left-handers have substantially different brain organization relative to right-handers.

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-07-2010
Enrollment:	24
Type:	Actual

Ethics review

Approved WMO

Date:	12-05-2010
Application type:	First submission
Review commission:	METC Leids Universitair Medisch Centrum (Leiden)

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	NL31279.058.10