DMP title

Project Name Self-other sharing and distinction of emotions in interactions of individuals with borderline personality disorder based on non-verbal emotion communication (12A2122N) - DMP title

Grant Title 12A2122N

Principal Investigator / Researcher Celine De Meulemeester

Project Data Contact celine.demeulemeester@kuleuven.be

Description This junior postdoctoral research project entails experimental psychopathological research to study the sharing and distinction of emotions in the interactions of individuals with borderline personality disorder (BPD) as compared to healthy controls (HC). In study 1, we will investigate whether BPD patients display more emotional egocentricity and altercentricity than HCs when observing others' non-verbal emotion communication. In study 2, we will investigate whether naÃ¯ve observers' emotional responses to BPD patients' emotion communication differ from responses to HCs. In study 3, videorecordings of interactions with BPD vs. HC participants will be analyzed to compared interpersonal synchrony. Different types of data from human participants will be collected: (a) self-report questionnaire responses, (b) behavioral responses to different task conditions, (c) psychophysiological measures (Heart Rate/Skin Conductance) and (d) videorecordings. The purpose for which this data is collected is to answer specific research questions in order to better understand the interpersonal difficulties patients with BPD experience with the goal of improving treatment and overall well-being.

Institution KU Leuven

1. General Information

Name applicant

Celine De Meulemeester, PhD

FWO postdoctoral fellow

Clinical Psychology Research Group

Tiensestraat 102 box 3720, 3000 Leuven, Belgium

FWO Project Number & Title

Self-other sharing and distinction of emotions in interactions of individuals with borderline personality disorder based on non-verbal emotion communication (12A2122N)

Affiliation

- KU Leuven

2. Data description

Will you generate/collect new data and/or make use of existing data?

- Generate new data

Describe in detail the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a table (see example) or as a data flow and per WP or objective of the project. If you reuse existing data, specify the source of these data. Distinguish data types (the kind of content) from data formats (the technical format).

Origin of data	Type of data	File Format	Volume	Mode	How Created / Source
1. Demographic information	textual, numerical	.xls, .csv, .sav, .R	.xls, .csv, .sav, .R	Observational	Collected via REDCap
2. Self-report questionnaires	numerical	.xls, .csv, .sav, .R	< 10 mb	Observational	Collected via REDCap
3. Behavioral responses during experimental tasks	numerical (reaction times, response choices etc.)	.txt, .xls, .csv, .sav, .R	< 10 mb	Experimental	Collected via PsychoPy
4. Physiological responses during experimental tasks	numerical	xls, .csv, .sav, .html, .R	3-5 GB	Experimental	Collected via Chill band+ of IMEC
5. Videorecordings during experimental tasks	video files	.mts, .mp4	6-8 GB	Experimental	Collected via a 10-megapixel camera (Panasonic HC-V180), approx. 20 minutes per participant compressed to .mp4 HD (720p, 1 Mbps)
6. Diagnostic interview assessment	textual, numerical	.xls, .csv, .sav, .R	< 10 mb	Observational	Face-to-face interview with notes and criterium scores on paper, numerical scores digitized in REDCap

3. Legal and ethical issues

Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to your file in KU Leuven's Register of Data Processing for Research and Public Service Purposes (PRET application). Be aware that registering the fact that you process personal data is a legal obligation.

- Yes

Privacy Registry Reference: G-2021-4438. PRET application in process, not yet submitted.

Short description of the kind of personal data that will be used:

We will collect personal data of individuals diagnosed with borderline personality disorder while undergoing hospitalization-based treatment, aged 18-60, and a group of gender- and age-matched community controls (total N ~ 80).

Collected personal data: name, age, gender, level of education, employment status, relationship status, e-mail adress (to send personalized REDCap link to fill out self-report questionnaires),

psychotropic medication use (clinician-reported). Data about participants' self-reported mental health state (e.g. traits, emotions, thoughts, mental health distress symptoms and issues) will be collected using REDCap. Behavioral responses (e.g. response choices, reaction times) and physiological responses (e.g. heart rate and skin conductance) and videorecordings of participants will be collected during experimental task procedures. For a detailed description, please consult the EC protocol (PRET G-2021-4438).

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, add the reference to the formal approval by the relevant ethical review committee(s)

- Yes

PRET (G-2021-4438) application in process, not yet submitted.

Does your work possibly result in research data with potential for tech transfer and valorisation? Will IP restrictions be claimed for the data you created? If so, for what data and which restrictions will be asserted?

- No

Do existing 3rd party agreements restrict dissemination or exploitation of the data you (re)use? If so, to what data do they relate and what restrictions are in place?

- No

4. Documentation and metadata

What documentation will be provided to enable reuse of the data collected/generated in this project?

- Readme file for each dataset (following KU Leuven template https://www.kuleuven.be/rdm/en/README)

- Information on the methodology used to collect the data will be published in detail in research papers

- Codebooks and coding rules, describing in detail what the meaning is of the data (how each row and each column in the dataset was coded) (.docx, .xls, .csv)

- Syntax files on how raw data was processed and analyzed (SPSS syntax files .sps; R script .r)

Will a metadata standard be used? If so, describe in detail which standard will be used. If no, state in detail which metadata will be created to make the data easy/easier to find and reuse.

- No

- Demographic information and self-report questionnaires data collected in REDCap (Data types 1, 2 and 6 in Section 2): Metadata will be exported (as a data dictionary) out of the REDCap project. Each row in the data dictionary corresponds to one field in the project's dataset.

- For all experimental data (Data types 3, 4 and 5 in Section 2): metadata will be exported out of the experimental software (PsychoPy) in txt. file format.

5. Data storage and backup during the FWO project

Where will the data be stored?

1. The master copy of the data (pseudonymized) will be stored in the university's secure environment (encrypted network drive with automatic back-up procedures), with a physical back-up on a bit-locker encrypted external hard drive.

2. Anonymized copies can be made and kept on personal devices. Since we will collaborate with researchers from other research units and groups, we will use OneDrive for active use of the anonymized data during the project.

4. The participant name and contact information coupled to the study ID's will be stored separately from the master file in a secure environment. Only the lab manager Yannic Verhaest (yannic.verhaest@kuleuven.be) has access to this information.

5. The videorecordings of the participants (images of participant's faces) cannot be anonymized. The files will be compressed and stored in the university's secure environment, with a physical back-up on a bit-locker encrypted external hard drive.

How is backup of the data provided?
The data will be stored on the university's central servers (encrypted network drives) with automatic daily back-up procedures. Once per week the data will be backed up on a bit-locker encrypted external hard drive.

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available then explain how this will be taken care of.

- Yes

This is managed by KU Leuven IT (we pay for the volume we store).

What are the expected costs for data storage and back up during the project? How will these costs be covered?
The data will be hosted on the servers of KU Leuven. In view of the expected size (+- 10-15 GB), the estimated cost will be 10-20 euros per year. This will be covered by the FWO bench fee.

Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?
All data will be de-identified and merged in a master file. Each participant's record will be stored pseudonymized (the personally identifiable information will be removed and replaced by a unique study identifier). Only the data lab manager (Yannic Verhaest, yannic.verhaest@upckuleuven.be) will be able to link these codes to the person (which is needed to contact participants for follow-up measures). This linking file will be password encrypted and stored within the secure UZ Leuven network (accessed only by Yannic Verhaest). All physical data (i.e., informed consent) will be stored in a locked archive closet. The video-recordings cannot be anonymised and will be compressed and securely stored on the university's secure environment for private data.

6. Data preservation after the FWO project

Which data will be retained for the expected 5 year period after the end of the project? In case only a selection of the data can/will be preserved, clearly state the reasons for this (legal or contractual restrictions, physical preservation issues, ...).
In line with the regulations of KU Leuven, the anonymized master file of the data will be preserved for 10 years after the end of the study. The link between the participant contact information and the participant study ID's will be destroyed at the end of the study. The videorecordings are viewed as a highly valuable dataset that will be preserved for future research in a safe environment.

Where will the data be archived (= stored for the longer term)?
The anonymized master file of the data will be stored on in the KU Leuven RDR Research Data Repository for at least 10 years, conform the KU Leuven RDM policy. Anonymized datasets upon which publications are based will also be stored on the Open Science Framework (OSF) for use by other researchers.

What are the expected costs for data preservation during the retention period of 5 years? How will the costs be covered?
Both the RDR and the OSF data repositories are free of charge so no costs are involved in data preservation.

7. Data sharing and reuse

Are there any factors restricting or preventing the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

- Yes. Specify:

Identifiable personal data cannot be shared. The anonymized master file of the data will be deposited on the RDR KU Leuven platform and the OSF platform and made availabel for other researcher upon reasonable request. The data can only be used for the advancement of scientific knowledge on borderline personality disorder.

Which data will be made available after the end of the project?

The anonimyzed master copy of the data including documentation and metadata will be stored on the RDR (KU Leuven) platform and shared with other researchers upon request. The data can only be used to advance scientific knowledge on borderline personality disorder.

Where/how will the data be made available for reuse?

- In a restricted access repository
- Upon request by mail

When will the data be made available?

- Upon publication of the research results

Who will be able to access the data and under what conditions?

Access will be considered after a request is submitted explaining the planned reuse. Only uses for research purposes will be allowed that are in line with the explained purpose of the study and commercial reuse will be excluded.

What are the expected costs for data sharing? How will the costs be covered?

Both the RDR and the OSF data repositories are free of charge so no costs are involved in data sharing.

8. Responsibilities

Who will be responsible for data documentation & metadata?

The lab's data manager Yannic Verhaest (yannic.verhaest@upckuleuven.be) will be responsible for documentation and metadata for the demographic information, self-report questionnaires and interview data (Data types 1, 2 and 6 in Section 2).

The PI (Celine De Meulemeester, celine.demeulemeester@kuleuven.be) will be responsible for documentation and metadata for the experimental data (Data types 3, 4 and 5 in Section 2).

Who will be responsible for data storage & back up during the project?

The lab's data manager Yannic Verhaest (yannic.verhaest@upckuleuven.be) for the demographic information, self-report questionnaires and interview measures (Data types 1, 2 and 6 in Section 2).

The PI (Celine De Meulemeester, celine.demeulemeester@kuleuven.be) will be responsible for storage and back-up of experimental data (Data types 3, 4 and 5 in Section 2).

Who will be responsible for ensuring data preservation and reuse ?

The PI Celine De Meulemeester (celine.demeulemeester@kuleuven.be)

Who bears the end responsibility for updating & implementing this DMP?

The PI bears the end responsibility of updating & implementing this DMP.