

PARTICIPANT INFORMATION

Study title: The influence of empathy and mimicry on the recognition of emotions in faces and emojis

Dear participant,

We would like to ask you to take part in the following study:

BACKGROUND AND AIMS OF THE STUDY

Nowadays, instant messenger applications like WhatsApp, Telegram or Signal and social media like Facebook, Instagram or Twitter are important platforms for our daily communication and social interactions. In face-to-face communication, the emotional expressions on the faces of our conversation partners are important non-verbal clues for their emotional states. In contrast, in digital communication emoticons with emotional expressions serve as a substitute for these emotional facial expressions, which are missing in digital communication. Emoticons are character-based representations of facial expressions, symbols and objects, whose pictorial update, also called emoji, was already used by 92% of the online population in 2015. However, the question occurs if emojis are indeed an adequate substitute for emotional facial expressions and if empathy and mimicry have an influence on emotion recognition in faces as well as in emojis (here: imitation of emotional facial expressions). Hence, the aim of this study is to test if empathy and mimicry (the imitation of facial expressions) influence emotion recognition in emojis as they do in real faces. This will be investigated both across emotions and emotion-specific.

STUDY PROCEDURE

Once, you have given your consent to participate in this online study, we would first like to ask you to fill in some personal information. Afterwards an experimental paradigm would follow, the first section of which would include a test to measure your ability to recognize emotions in faces and emojis. Then, you would be randomly assigned to one of two experimental conditions and complete the emotion recognition task again. After finishing the paradigm, we would like to ask you to fill out a short battery of questionnaires (incl. a rating of the emojis from the emotion recognition task and questionnaires on variables of interest such as empathy, personality, etc.)

PREREQUISITE FOR PARTICIPATION

You can participate in this study if you meet the following criteria:

- Minimum age of 18 years
- English as native language or good English skills
- You did NOT take part in the German-language pilot study entitled "Der Einfluss von Empathie und Mimikry auf die Emotionserkennung bei Gesichtern und Emojis (**Pilotstudie**)"

EFFORT AND COMPENSATION

Participation in this online study will take approximately 45 to 60 minutes. Participation in the study will not be compensated in monetary terms, but you will receive anonymous personal feedback for your participation as an allowance. You will receive feedback on your performance in the emotion recognition tasks with real faces and emojis during the first measurement, your own empathy values, as well as your personality compared to other participants.

Psychology students at Ulm University can get 1.5 VP hours credited. After participation, you can enter your SONA code in a field independent of the online questionnaire data and the VP hours will be remunerated accordingly. Your SONA code will not be merged with the online data.

VOLUNTARINESS

You participate in this research project voluntarily. You can revoke your consent at any time and without giving reasons by cancelling the online study without having to fear any disadvantages (e.g., by closing the browser window). This possible revocation has no consequences for you. Since this is a completely anonymous survey, data already sent after complete participation cannot be deleted afterwards.

AVAILABILITY OF THE STUDY STAFF

Should questions arise during the course of the research project, you can contact Nana Löchner at any time on +49-(0)731/50 26552 (e-mail: nana.loechner@uni-ulm.de).

In case of emergency the following number applies: +49-(0)731/50 26550

INSURANCE

No risks for you are to be expected from participating in the study. Furthermore, since it is only an online study that you can fill out from anywhere, there is no insurance cover.

CONFIDENTIALITY / DATA PRIVACY

Within the scope of the study, only data that you provide voluntarily will be collected, stored and evaluated. The protection of your data is guaranteed because the collection of data is completely anonymous. The questionnaires you fill out will only be processed using a sequential number. Due to the anonymous data collection, neither the scientists nor third parties know who the collected data originates from. Therefore, it is not possible for you to inspect the data collected about you. We treat all collected data strictly confidential and according to the legal data protection regulations. All persons in charge of this project are subject to professional secrecy and are bound to data secrecy. Regarding the questionnaires, we would like to point out that according to Art. 9, Paragraph (2a) DSGVO special categories of personal data are collected. According to this, "data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs (...) and (...) data concerning health, sex life or sexual orientation of a natural person (...)" may only be further processed if "the data subject expressly consents to the processing of personal data (...)". This explicit consent is given in the context of your digital declaration of consent to participate in the study. The study-related research results are to be used in anonymized form in scientific publications. As far as it is necessary to control the correct collection of data, authorized persons (e.g.: the university) may inspect the study-related parts of the file. As far as persons authorized to inspect the files are not subject to the above-mentioned professional secrecy, personal data which they obtain during the inspection constitute company secrets which must be kept secret.

We would also like to point out the following circumstance: More and more scientific journals are asking for the data we calculate with and which lead to our results to be uploaded to online platforms. This happens so other scientists can check our results firsthand. By participating in this study, you agree that we may upload your data anonymously into one of these online platforms.

The following also applies to the storage of your data: The data is stored anonymously. The data collected here will not be stored together with your real name at any time.

Where is the data stored during the study?

The data of the study is hosted on a server of the company Hetzner GmbH in Nuremberg, Germany. Administration of the software is carried out exclusively by employees of the Montag working group in Ulm.

All security measures are taken on the server to protect the data. These include:

Use of current operating systems and software, regular security and software updates, passwords according to the "BSI policy for passwords", use of a firewall and DOS/DDOS protection. The server rooms and the entire process at Hetzner are certified according to ISO/IEC 27001.

Hetzner himself says: The internationally recognized standard for information security certifies Hetzner Online GmbH and Hetzner Finland Oy that a suitable information security management system, briefly ISMS, was implemented and is lived. The ISMS is applied at the locations Nuremberg and Falkenstein as well as Helsinki under the Scope "the area of application of the information security management system covers the infrastructure, the enterprise and the customer support of the computing centers.". The corresponding certification procedure was carried out by FOX Certification GmbH.

The certificate proves adequate security management, data security, confidentiality of information and availability of IT systems. It also confirms that the security standards are continuously improved and sustainably controlled."

And here is the privacy policy: <https://www.hetzner.de/rechtliches/datenschutz/>

The server is located in Germany and therefore subject to European data law (DGSVO). Thus, all essential elements are fulfilled to protect the users of our website.

The person responsible for data processing in this project is: Prof. Dr. Christian Montag, Department of Molecular Psychology, Ulm University, Helmholtz Str. 8/1, 89081 Ulm, Germany, phone: +49-(0)731/50-26550, e-mail: christian.montag@uni-ulm.de.

If you have any questions regarding the use or processing of your data, please contact the:

- Data protection officer of the local study center

*(a) Ulm University: Ulm University, Helmholtzstr. 16, 89081 Ulm, Germany,
phone: +49-(0)7542 / 949 2109, e-mail: <mailto:dsb@uni-ulm.de>*

If you have concerns or complaints regarding the processing of your data, please contact the data protection supervisory authority of your study center: You will find the relevant contact details on the website of the State Commissioner for Data Protection and Freedom of Information Baden-Württemberg: <https://www.baden-wuerttemberg.datenschutz.de/dsb-online-melden/>

DECLARATION OF CONSENT

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Content, procedure, risks, and goal of the above-mentioned research project as well as the authority to inspect the collected data were explained to me sufficiently and understandably.

I had additional questions:

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I had the opportunity to ask questions and received answers.

I had sufficient time to decide for or against participation in the project and I am aware that I can also participate in such projects (e.g., internships, exercises) for the acquisition of participant hours, which are not projects in humans that require advice from the Ethics Committee.

I have downloaded a copy of the participant information and declaration of consent.

I agree to participate in the research project.

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(Name of the participant)

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Place, Date

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(Signature of the participant)

INFORMATION AND DECLARATION OF CONSENT ON DATA PRIVACY

In scientific studies, personal data is collected about you. The storage, evaluation and transfer of this study-related data is carried out according to legal regulations and requires the following voluntary consent prior to participation in the study:

1. I agree that data collected in the course of this study may be recorded on questionnaires and electronic data carriers and processed without mentioning my name.
2. Furthermore, I agree that a person, authorized and sworn to secrecy (e.g.: of the university), may inspect my personal data collected, as far as this is necessary for the inspection of the project.
3. I agree that my data will be made available in anonymous form to other persons accompanying a scientific article and will be uploaded to designated platforms for exclusively scientific processing.
4. I understand that my right to information about personal data concerning me and its correction or deletion after completion of the study is excluded because the data collection is completely anonymous.

I am at least 18 years old and agree to the described use of my data above.

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(Name of the participant)

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Place, Date

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(Signature of the participant)