**Non-invasive brain stimulation**

This data file contains columns of raw data pertaining to behavioural performance on an empathy measure before and after a self-other control training intervention combined with either active or sham transcranial direct current stimulation.

Brief description of the columns:

* Column A (Self Emotion Ratings Pre-Test): Self-reported emotion ratings before the intervention.
* Column B (Self Emotion Ratings Post-Test): Self-reported emotion ratings after the intervention.
* Column C (Other Emotion Ratings Pre-Test): Emotion ratings for others before the intervention.
* Column D (Other Emotion Ratings Post-Test): Emotion ratings for others after the intervention.
* Column E (Condition): Indicates whether the transcranial direct current stimulation was active or sham during the intervention.

The data in each row represents the performance of a participant on the empathy measure before and after the intervention, with corresponding emotion ratings for self and others, along with the condition of brain stimulation (active or sham).

**Offline Training Data**

This data file contains columns of raw data pertaining to behavioural performance on an empathy measure before and after a self-other control training intervention conducted in the laboratory over a two-day period (day one = pre-test, day two = post-test).

Brief description of the columns:

* Column A (Age): Age of the participants.
* Column B (Gender): Gender of the participants.
* Column C (Ethnicity): Ethnicity of the participants.
* Column D (Training Group): Indicates the group to which participants were assigned for the self-other control training intervention.
* Columns E-H (Pre-Test):
  + E (Self Emotion Trial Ratings): Self-reported emotion ratings before intervention.
  + F (Other Emotion Trial Ratings): Emotion ratings for others before intervention.
  + G (Self Control Trial Ratings): Performance ratings on self-control trials before intervention.
  + H (Other Control Trial Ratings): Performance ratings on other-control trials before intervention.
* Columns I-L (Post-Test):
  + I (Self Emotion Trial Ratings): Self-reported emotion ratings after intervention.
  + J (Other Emotion Trial Ratings): Emotion ratings for others after intervention.
  + K (Self Control Trial Ratings): Performance ratings on self-control trials after intervention.
  + L (Other Control Trial Ratings): Performance ratings on other-control trials after intervention.

**Online training intervention**

This data file contains columns of raw data pertaining to behavioural performance on an empathy measure before and after an online self-other control training intervention (pre-test, intervention, post-test in one session).

Brief description of the columns:

* Column A (Age): Age of the participants.
* Column B (Gender): Gender of the participants (m = male, f = female).

***Questionnaire of Cognitive and Affective Empathy:***

Columns C-J contain scores on the Questionnaire of Cognitive and Affective Empathy:

* C (Perspective Taking Scale): Scores on the Perspective Taking subscale.
* D (Online Simulation Scale): Scores on the Online Simulation subscale.
* E (Emotion Contagion): Scores on the Emotion Contagion subscale.
* F (Proximal Responsivity): Scores on the Proximal Responsivity subscale.
* G (Peripheral Responsivity): Scores on the Peripheral Responsivity subscale.
* H (Cognitive Empathy): Sum of Perspective Taking and Online Simulation scores.
* I (Affective Empathy): Sum of Emotion Contagion, Proximal Responsivity, and Peripheral Responsivity scores.
* J (Total Empathy Score): Sum of Cognitive Empathy and Affective Empathy scores.

***Scores on Toronto Alexithymia Scale (TAS-20):***

Columns K-N contain scores on the Toronto Alexithymia Scale:

* K (Difficulty Describing Feelings): Scores on the Difficulty Describing Feelings subscale.
* L (Difficulty Identifying Feeling): Scores on the Difficulty Identifying Feeling subscale.
* M (Externally-Oriented Thinking): Scores on the Externally-Oriented Thinking subscale.
* N (Total Score): Sum of Difficulty Describing Feelings, Difficulty Identifying Feeling, and Externally-Oriented Thinking subscales.

***Scores on Trait Emotional Intelligence Questionnaire:***

Columns O-S contain scores on the Trait Emotional Intelligence Questionnaire:

* O (Wellbeing): Scores on the Wellbeing subscale.
* P (Self Control): Scores on the Self Control subscale.
* Q (Emotionality): Scores on the Emotionality subscale.
* R (Sociability): Scores on the Sociability subscale.
* S (Total EI): Total Emotional Intelligence score.

***Scores on Empathy Task***

Columns T-W contain pre-test performance on the empathy task before the training intervention:

* T (Self Emotion Ratings Pre-Test): Self-reported emotion ratings before the intervention.
* U (Other Emotion Ratings Pre-Test): Emotion ratings for others before the intervention.
* V (Self Control Trial Ratings Pre-Test): Performance ratings on self-control trials before the intervention.
* W (Other Control Trial Ratings Pre-Test): Performance ratings on other-control trials before the intervention.

Columns X-AA contain post-test performance on the empathy task following the training intervention:

* X (Self Emotion Ratings Post-Test): Self-reported emotion ratings after the intervention.
* Y (Other Emotion Ratings Post-Test): Emotion ratings for others after the intervention.
* Z (Self Control Trial Ratings Post-Test): Performance ratings on self-control trials after the intervention.
* AA (Other Control Trial Ratings Post-Test): Performance ratings on other-control trials after the intervention.

The data in each row represents the performance of a participant on various empathy measures before and after the online self-other control training intervention, along with demographic information such as age and gender.

**EPIC Data – Phase 1**

This data file contains columns of raw data pertaining to participants’ self-reported trait scores relating to their social and emotional competence, expressivity, and personality. Participants’ self-reported summative judgements of experienced affective intensity and valence, elicited during the recall (and recording) of emotionally evocative events in their lives.

|  |  |  |
| --- | --- | --- |
| Column A | Age | Participant Age |
| Column B | Gender | Participant Gender |
| Column C | Total VRA | Total Verbal Reasoning Ability as measured by the International Cognitive Ability Resource: Verbal Reasoning items |
| Column D | GEMOK\_blends\_total | Total scores on the Geneva Emotion Knowledge Test (Blends) |
| Columns E-H contain scores on the Berkley Expressivity Questionnaire: | | |
| Column E | BEQ\_NegEmo | Scores on the negative emotionality subscale |
| Column F | BEQ\_PosEmo | Scores on the positive emotionality subscale |
| Column G | BEQ\_ImpStr | Scores on the impulse strength subscale |
| Column H | BEQ\_TotalExpr | Total/overall expressivity scores |
| Columns I-L contain scores on the Toronto Alexithymia Scale: | | |
| Column I | TAS\_DDF | Scores on the Difficulty Describing Feelings subscale. |
| Column J | TAS\_DIF | Scores on the Difficulty Identifying Feeling subscale. |
| Column K | TAS\_EOT | Scores on the Externally-Oriented Thinking subscale. |
| Column L | TAS\_total | Total/overall Alexithymia scores |
| Columns M-R contain scores on the HEXACO Personality Inventory - Revised (60 item) | | |
| Column M | H | Scores on the Honesty-Humility subscale |
| Column N | E | Scores on the Emotionality subscale |
| Column O | X | Scores on the Extraversion subscale |
| Column P | A | Scores on the Agreeableness subscale |
| Column Q | C | Scores on the Conscientiousness subscale |
| Column R | O | Scores on the Openness to Experience subscale |
| Columns S-T contain scores on the International Positive and Negative Affect Schedule (short form) | | |
| Column S | NegAff | Negative affect scores |
| Column T | PosAff | Positive affect scores |
| Columns U-W contain scores on the Depression Anxiety and Stress Scale | | |
| Column U | DASS\_Depr | Depression subscale scores |
| Column V | DASS\_Anx | Anxiety subscale scores |
| Column W | DASS\_Strs | Stress subscale scores |
| Columns X-Y contain participants’ self-reported experienced affective valence and intensity scores, measured immediately after being recorded recalling an emotionally evocative event in their life. | | |
| Column X | encoder\_valence\_neg | Self-reported valence scores after recalling an emotionally negative event in their lives. |
| Column Y | encoder\_valence\_neut | Self-reported valence scores after recalling an emotionally neutral event in their lives. |
| Column Z | encoder\_valence\_pos | Self-reported valence scores after recalling an emotionally positive event in their lives. |
| Column AA | encoder\_intensity\_neg | Self-reported intensity scores after recalling an emotionally negative event in their lives. |
| Column AB | encoder\_intensity\_neut | Self-reported intensity scores after recalling an emotionally neutral event in their lives. |
| Column AC | encoder\_intensity\_pos | Self-reported intensity scores after recalling an emotionally positive event in their lives. |

Data on each row represents each participant’s demographic information, their self-report scores (measured after videorecording took place), and their self-reported affect scores (valence and intensity; recorded immediately after recording took place).

**EPIC Data – Phase 2**

This data file contains columns of raw data pertaining to participants’ affect ratings of videos recorded as part of Phase 1 of the EPIC project. Due to the number of videos recorded, no one group could rate them all at once, so the videos were divided up into 16 batches, each batch of videos was rated by a different group (time 1) and then each of the 16 groups was paired and they swapped the batches they rated, so each group rated a second batch (time 2). This was done to enable the analysis of the reliability of the video content.

After watching each video, participants rated the affective intensity and valence experienced by themselves (self ratings) and perceived as experienced by the individual portrayed in the video (other ratings). The data file also contains a variety of additional summary statistics including the confidence intervals and standard error of the ratings, as well as the number of raters in each group and whether the video portrayed an individual recalling a positive, negative, or neutral event in their lives. Data on each row represents an individual participant’s data.

|  |  |  |
| --- | --- | --- |
| Column A | vid\_name | The name of the video being rated |
| Column B | vid\_valence | Whether the video being rated was positive (posvid), negative (negvid), or neutral (neutvid) |
| Column C | n\_raters | The number of raters in the group that rated the video |
| Column D | val\_other\_mean | The groups’ average rating of the affective valence of the individual portrayed in the videoclip. |
| Column E | val\_other\_stdev | The standard deviation of the groups’ rating of the affective valence of the individual portrayed in the videoclip. |
| Column F | val\_other\_SEM | The standard error of the mean of the groups’ rating of the affective valence of the individual portrayed in the videoclip. |
| Column G | val\_other\_95CI\_hi | The 95% confidence interval’s upper limit, for the groups’ rating of the affective valence of the individual portrayed in the videoclip. |
| Column H | val\_other\_95CI\_lo | The 95% confidence interval’s lower limit, for the groups’ rating of the affective valence of the individual portrayed in the videoclip. |
| Column I | int\_other\_mean | The groups’ average rating of the affective intensity of the individual portrayed in the videoclip. |
| Column J | int\_other\_stdev | The standard deviation of the groups’ rating of the affective intensity of the individual portrayed in the videoclip. |
| Column K | int\_other\_SEM | The standard error of the mean of the groups’ rating of the affective intensity of the individual portrayed in the videoclip. |
| Column L | int\_other\_95CI\_hi | The 95% confidence interval’s upper limit, for the groups’ rating of the affective intensity of the individual portrayed in the videoclip. |
| Column M | int\_other\_95CI\_lo | The 95% confidence interval’s lower limit, for the groups’ rating of the affective intensity of the individual portrayed in the videoclip. |
| Column N | val\_self\_mean | The groups’ average rating of their own affective valence, experienced while observing the individual portrayed in the videoclip. |
| Column O | val\_self\_stdev | The standard deviation of the groups’ rating of their own affective valence, experienced while observing the individual portrayed in the videoclip. |
| Column P | val\_self\_SEM | The standard error of the mean of the groups’ rating of their own affective valence, experienced while observing the individual portrayed in the videoclip. |
| Column Q | val\_self\_95CI\_hi | The 95% confidence interval’s upper limit, for the groups’ rating of their own affective valence, experienced while observing the individual portrayed in the videoclip. |
| Column R | val\_self\_95CI\_lo | The 95% confidence interval’s lower limit, for the groups’ rating of their own affective valence, experienced while observing the individual portrayed in the videoclip. |
| Column S | int\_self\_mean | The groups’ average rating of their own affective intensity, experienced while observing the individual portrayed in the videoclip. |
| Column T | int\_self\_stdev | The standard deviation of the groups’ rating of their own affective intensity, experienced while observing the individual portrayed in the videoclip. |
| Column U | int\_self\_SEM | The standard error of the mean of the groups’ rating of their own affective intensity, experienced while observing the individual portrayed in the videoclip. |
| Column V | int\_self\_95CI\_hi | The 95% confidence interval’s upper limit, for the groups’ rating of their own affective intensity, experienced while observing the individual portrayed in the videoclip. |
| Column W | int\_self\_95CI\_lo | The 95% confidence interval’s lower limit, for the groups’ rating of their own affective intensity, experienced while observing the individual portrayed in the videoclip. |
| Column X | group\_rating-time | The name of the group the participant belonged to (Group 1 = Gr1 - Group 16 = Gr16) and the rating time (time 1 = Ti1, time 2 = Ti2) |