

Specification of data variables

EXP1. Relational inference task

- Subject: Participant's code
- Trial: Number of trial
- Relational set type: Linear or non-linear trial
- Accuracy: Correct (1) or incorrect (0) trial
- RT: Trial reaction time

EXP1. Individual measures

- Subject: Participant's code
- z_Relational_Search: Standardized Relational Search index (Relational inference task)
- z_Attentional_Bias: Standardized Attentional Bias index (Relational inference task)
- z_Relational_Bias: Standardized Relational Bias index (Relational inference task)
- z_Sophistication_Index: Standardized Sophistication Index (combination of the three previous indices, used for Causal Mediation Analysis)
- Group: Sophisticated or unsophisticated (resulting from cluster analysis)
- z_accuracy_Relational_inference_task: Standardized overall accuracy of the Relational inference task
- CRT: CRT score (number of correct responses)
- z_CRT: Standardized CRT score
- APM: APM raven score (number of correct responses)
- z_APM: Standardized APM raven score
- 2_back: 2-back task score (proportion of correct responses)
- z_2_back: Standardized 2-back task score
- 3_back: 3-back task score (proportion of correct responses)
- z_3_back: Standardized 3-back task score
- forward_span: Forward digit span (number of recalled items)
- z_forward_span: Standardized forward digit span
- backward_span: Backward digit span (number of recalled items)
- z_backward_span: Standardized backward digit span

EXP1. Eye fixation data

- Subject: Participant's code
- Trial: Number of trial
- Fix_Index: Progressive number of fixation within trial
- Fixation_time: End of current fixation in the Representation phase (ms)
- Fixation_length: Length of current fixation in the Representation phase (ms)
- Temporal interval cluster analysis: Results of trial-by-trial cluster analysis on fixation_time and fixation_length dimensions. Each fixation has been assigned to a cluster: Representation-building (1) or Representation-consolidation (2)

EXP2. Relational-inference task

Data are organized Pre-treatment and Post-treatment sessions. Both sessions contain these variables:

- Subject: Participant's code
- Trial: Number of trial
- Relational set type: Linear or non-linear trial
- Accuracy: Correct (1) or incorrect (0) trial
- RT: Trial reaction time

EXP2. Individual measures

- Subject: Participant's code
- RS_pre: Relational Search index in the pre-treatment session.
- AB_pre: Attentional Bias index in the pre-treatment session.
- RB_pre: Relational Bias index in the pre-treatment session.
- RS_post: Relational Search index in the post-treatment session.
- AB_post: Attentional Bias index in the post-treatment session.
- RB_post: Relational Bias index in the post-treatment session.
- zRS_pre: Standardized Relational Search index in the pre-treatment session.
- zAB_pre: Standardized Attentional Bias index in the pre-treatment session.
- zRB_pre: Standardized Relational Bias index in the pre-treatment session.
- zRS_post: Standardized Relational Search index in the post-treatment session.
- zAB_post: Standardized Attentional Bias index in the post-treatment session.
- zRB_post: Standardized Relational Bias index in the post-treatment session.

- cluster_pre_treatment: Sophisticated or unsophisticated (resulting from cluster analysis in the pre-treatment session)
- cluster_post_treatment: Sophisticated or unsophisticated (resulting from cluster analysis in the post-treatment session)
- accuracy_pre: overall mean accuracy in the pre-treatment session (Relational-inference task)
- accuracy_post: overall mean accuracy in the post-treatment session (Relational-inference task)
- CRT: CRT score (number of correct responses)
- zCRT: Standardized CRT score
- Backward_span: Backward digit span (number of recalled items)
- zBackward_span: Standardized backward digit span
- APM: APM raven score (number of correct responses)
- zAPM: Standardized APM raven score

EXP2. Eye fixation data

Data are organized Pre-treatment and Post-treatment sessions. Both sessions contain these variables:

- Subject: Participant's code
- Trial: Number of trial
- Fix_Index: Progressive number of fixation within trial
- Fixation_time: End of current fixation in the Representation phase (ms)
- Fixation_length: Length of current fixation in the Representation phase (ms)
- Temporal_interval_cluster_analysis: Results of trial-by-trial cluster analysis on fixation_time and fixation_length dimensions. Each fixation has been assigned to a cluster: Representation-building (1) or Representation-consolidation (2)

EXP3. Verbal-inference task

- Subject: Participant's code
- Trial: Number of trial
- Item: progressive code of conditional sequence
- Inference_type: Modus Ponens (MP), Modus Tollens (MT), Affirmation of the Consequent (AC), Denial of the Antecedent (DA), Affirmation of the Consequent & Modus Tollens (ACMT), Denial of the Antecedent & Modus Ponens (DAMP).

- Linearity: Linear or non-linear set of premises
- N_inferences: number of inferences to perform to judge the validity of the argument
- Transitivity: transitive or nontransitive set of premises
- Accuracy: Correct (1) or incorrect (0) trial
- RT: Trial reaction time

EXP3. Individual measures

- zRS: Standardized Relational Search index in the Verbal-inference task
- zAB: Standardized Attentional Bias index in the Verbal-inference task
- zRB: Standardized Relational Bias index in the Verbal-inference task
- accuracy_MP: mean accuracy in MP trials
- z_accuracy_MP: standardized mean accuracy in MP trials
- accuracy_AC: mean accuracy in AC trials
- z_accuracy_AC: standardized mean accuracy in AC trials
- accuracy_DA: mean accuracy in DA trials
- z_accuracy_DA: standardized mean accuracy in DA trials
- accuracy_MT: mean accuracy in MT trials
- z_accuracy_MT: standardized mean accuracy in MT trials
- accuracy_AC&MT: mean accuracy in AC&MT trials
- z_accuracy_AC&MT: standardized mean accuracy in AC&MT trials
- accuracy_DAMP: mean accuracy in DA&MP trials
- z_accuracy_DAMP: standardized mean accuracy in DA&MP trials
- CRT: CRT score (number of correct responses)
- zCRT: Standardized CRT score
- Backward_span: Backward digit span (number of recalled items)
- zBackward_span: Standardized backward digit span
- APM: APM raven score (number of correct responses)
- zAPM: Standardized APM raven score

EXP3. Eye fixation data

- Subject: Participant's code
- Trial: Number of trial
- Fix_Index: Progressive number of fixation within trial
- Phase: integration or judgment.
- ROI: Region of Interest in which the current fixation is located (A1, A2, A3, A4, A5, A6 or OUT for fixations outside the ROIs).
- Fixation_length: Length of current fixation in the Representation phase (ms)