# Extraction

In the following conversation, please respond as if you were a psychological researcher and peer reviewer concerned with replicable, transparent, and reliable research. In the pdf documents you will find two papers. The first is the Preregistration (PREREG). The second is the Published study (PUBSTUD). Please work step by step. Within the Study there can be several Studies, only focus on Conceptual replication.

.

I want you to **extract** information out of the documents. Follow this structure of the questions bellow, do not skip any number, and answer the SET of questions/tasks for each of the two texts. If you cannot find an information in one text, please state it according to the rules below. Please be as critical as possible in your judgement and extraction. So, for each question/task state the question number, the first variable name (e.g HypPre), your answer and then the second variable name (e.g HypPap) with your answer. Answer the set of questions for each text separately. Do not summarize. Keep the structure of the questions and the FORMAT-EXAMPLE at the end. Please be as critical and strict as possible in your judgement.

Be careful about dependencies: depending on whether a variable was experimentally manipulated or not, or if it is a composite or a non-composite measure, certain questions must be answered or not. For instance, questions about the manipulation of a variable (e.g., PREMI1) are only filled out when the variable is experimentally manipulated(e.g. PrePreMI1 = Yes), while questions about measures (e.g., PREIV1) are only answered when the variable is not experimentally manipulated. If this is the case, write “Not applicable”. Also, some questions about the measurement protocol (e.g. PreNIV1\_1) are only answered when it is a non-composite measure. The same goes for when one variable (e.g third variable) is not part of the study then write “not applicable” to the items regarding this variable.

At the end, after listing and extracting the information, give an estimate about the strictness of the Preregistration and the Published paper, whether they each were described in (a specific all steps that will be taken were described) and precise (each of the described steps allowed only one interpretation or implementation) manner. For each of the five major study parts (the operationalization of the independent variable, the operationalization of the dependent variable, the data collection procedure, the statistical model used and the the statistical inference criteria used) of the Preregistration and of the Published paper **rate** “0” if none of the elements were strict, “1” if some and “2” if all elements were strict.

Questions/tasks for both the Preregistered Paper (Prereg) <Pre….> and the Published Paper (Pubstud) <Pap…>:

2.Operationalization of Independent Variable 1, IV1

2.1. PrePreMI1/PapPapMI1: Check if IV1 is manipulated in an experiment.(Y/N)

2.2. PreMI1/PapMI1: If IV1 is experimentally manipulated Assess clarity in IV1's manipulation, e.g the difference between conditions. (Y/N)

2.3. PreIV1/PapIV1: If IV1 is not experimentally manipulated, assess if IV1’s measure is specified, e.g the test, scale etc. .(Y/N)

2.4. CPreIV1/CPapIV1: If IV1 is not experimentally manipulated, Determine if IV1 is a non-composite or composite measure.

2.5. PreNIV1\_1/PapNIV1\_1: If IV1 is not experimentally manipulated and a non-composite measure, Evaluate clarity of IV1's measurement protocol - Procedure of measurement. (Y/N)

2.6. PreNIV1\_2/PapNIV1\_2: If IV1 is not experimentally manipulated and a non-composite measure, Evaluate clarity of IV1's measurement protocol - Values of the measures. (Y/N)

3. Operationalization of Independent Variable 2, IV2

3.1. PrePreMI2/PapPapMI2: Check if IV2 is manipulated in an experiment. (Y/N)

3.2. PreMI2/PapMI2: If IV2 is experimentally manipulated, assess clarity in IV2's manipulation, e.g the difference between conditions. (Y/N)

3.3. PreIV2/PapIV2: If IV2 is not experimentally manipulated, assess if IV2's measure is specified, e.g the test, scale etc.. (Y/N)

3.4. CPreIV2/CPapIV2: If IV2 is not experimentally manipulated, determine if IV2 is a non-composite or composite measure.

3.5. PreNIV2\_1/PapNIV2\_1: If IV2 is not experimentally manipulated and a non-composite measure, Evaluate clarity of IV2's measurement protocol - Procedure of measurement. (Y/N)

3.6. PreNIV2\_2/PapNIV2\_2: If IV2 is not experimentally manipulated and a non-composite measure, Evaluate clarity of IV2's measurement protocol - Values of the measures. (Y/N)

4. Operationalization of Third Variable, TV

4.1. PrePreMT/PapPapMT: Check if TV is manipulated in an experiment. (Y/N)

4.2. PreMT/PapMT: If TV is experimentally manipulated, Assess clarity in TV's manipulation, e.g the difference between conditions. (Y/N)

4.3. PreTV/PapTV: If TV is not experimentally manipulated, assess if TV’s measure is specified, e.g the test, scale etc.. (Y/N)

4.4. CPreTV/CPapTV: If TV is not experimentally manipulated, Determine if TV is a non-composite or composite measure.

4.5. PreNTV\_1/PapNTV\_1: If TV is not experimentally manipulated and a non-composite measure, Evaluate clarity of TV's measurement protocol - Procedure of measurement. (Y/N)

4.6. PreNTV\_2/PapNTV\_2: If TV is not experimentally manipulated and a non-composite measure, Evaluate clarity of TV's measurement protocol - Values of the measures. (Y/N)

5.Operationalization of Dependent Variable DV

5.1. PreDV/PapDV: Is DV's measure specified, e.g the test, scale etc.. (Y/N)

5.2. CPreDV/CPapDV: Determine if DV is a non-composite or composite measure.

5.3. PreNDV\_1/PapNDV\_1: If DV is a non-composite measure, Evaluate clarity of DV's measurement protocol - Procedure of measurement. (Y/N)

5.4. PreNDV\_2/PapNDV\_2: If DV is a non-composite measure, Evaluate clarity of DV's measurement protocol - Values of the measures. (Y/N)

6.Operationalization of First Control Variable, CV

6.1. PrePreMC/PapPapMC: Check if the CV is manipulated in a experiment. (Y/N)

6.2. PreMC/PapMC: If CV is experimentally manipulated, Assess clarity in CV manipulation, e.g the difference between conditions. (Y/N)

6.3. PreCV/PapCV: If CV is not experimentally manipulated, assess if CV’s measure is specified, e.g the test, scale etc.. (Y/N)

6.4. CPreCV/CPapCV: If CV is not experimentally manipulated, Determine if CV is a non-composite or composite measure.

6.5. PreNCV\_1/PapNCV\_1: If CV is not experimentally manipulated and a non-composite measure, Evaluate clarity of CV's measurement protocol - Procedure of measurement) (Y/N)

6.6. PreNCV\_2/PapNCV\_2: If CV is not experimentally manipulated and a non-composite measure, Evaluate clarity of CV's measurement protocol - Values of the measures (Y/N)

7.Data Collection Procedure, DCP

7.1. PreDCP\_1/PapDCP\_1: Assess Clarity of the DCP, the exact Sample size (Y/N)

7.2. PreDCP\_2/PapDCP\_2: Assess Clarity of the DCP, the exact Sampling Time frame and situation (Y/N)

7.3. PreDCP\_Text/PapDCP\_Text: Extract the exact number of participants (number)

7.4. PrePA/PapPA: Did the authors use a POWER ANALYSIS to determine the sample size? (Y/N)

7.5. PreIEC/PapIEC: Does the Study specify producible INCLUSION / EXCLUSION CRITERIA that will be used to select PARTICIPANTS / DATA? The definitions underlying participant / data selection (e.g., how demographic information is assessed, what constitutes an outlier, what it means for a participant to not participate seriously)? The method to exclude participants / data (e.g., exclusion before or after data collection, the use of nonparametric tests, bootstrapping)? (Y/N)

7.6. PreIMD\_1/PapIMD\_1: Assess clarity of dealing with incomplete or missing data: The definition of a missing case [definition]. (Y/N)

7.7. PreIMD\_2/PapIMD\_2: Assess clarity of dealing with incomplete or missing data: The procedure to handle missing cases (e.g., pairwise deletion, listwise deletion,intention-to-treat method etc.) [method]. (Y/N)

8.Statistical Model

8.1. PRESM\_1/PAPSM\_1: Does the Study specify THE FIRST STATISTICAL MODEL TESTING THE HYPOTHESIS in a producible manner? Assess clarity of the statistical model used (e.g., t-test, chi-squared test, linear/logistic regression, two-way ANOVA). (Y/N)

8.2. PRESM\_2 PAPSM\_2: Does the Study specify THE FIRST STATISTICAL MODEL TESTING THE HYPOTHESIS in a producible manner? Assess clarity in specifying relevant variables and their factor levels for the statistical model (including mediating, moderating, interacting, and control variables). (Y/N)

8.3. PRESM\_3/PAPSM\_3: Does the Study specify THE FIRST STATISTICAL MODEL TESTING THE HYPOTHESIS in a producible manner? Assess clarity of how variables are used in the analysis (e.g., mean centered, SEM model specification including potential residual covariances, robust standard errors). (Y/N)

8.4. PREVSA\_1/ PAPVSA\_1: Does the Study indicate in a producible manner how the authors test for VIOLATIONS OF STATISTICAL ASSUMPTIONS? Assess clarity of which statistical assumptions are checked (e.g., normality, homoscedascity, linearity, homogeneity of variances, sphericity). (Y/N)

8.5. PREVSA\_2 /PAPVSA\_2: Does the Study indicate in a producible manner how the authors test for VIOLATIONS OF STATISTICAL ASSUMPTIONS? Assess clarity of how assumptions are checked (e.g., type of test like Levene’s test, alpha level). (Y/N)

8.6. PREVSA\_3 /PAPVSA\_3: Does the Study indicate in a producible manner what is done in the case of VIOLATIONS OF STATISTICAL ASSUMPTIONS? Assess clarity of what is done in cases of violations (e.g., transformations, non-parametric tests)? (Y/N)

8.7. PreIC/PapIC: Assess clarity of Inference Criteria (e.g., statistical significance, sidedness of the test, corrections for multiple testing, Bayesian criteria, sidedness of a significance test). Note that the authors need to be explicit in what the sidedness of a significance test is (i.e., one-sided vs. two-sided) and what the cut-off criterion for their statistical decision is (e.g., Bayes factor,Alpha value). (Y/N)

PLEASE go step by step and answer only AFTER COMPLETION (2.1 – 8.8)

#### <<FORMAT-EXAMPLE: …… **6. Operationalization of First Control Variable, CV**

6.1. **PrePreMC**: No. 6.2. **PreMC**: Not applicable. 6.3. **PreCV**: Yes. 6.4. **CPreCV**: Composite. 6.5. **PreNCV\_1**: No. 6.6. **PreNCV\_2**: No.

*……*

***6. Operationalization of FirstControl Variable, CV***

*6.1.* ***PapPapMC****: No. 6.2.* ***PapMC****:* Not applicable. *6.3.* ***PapCV****: No. 6.4.* ***CPapCV****: Composite. 6.5.* ***PapNCV\_1****: Yes. 6.6.* ***PapNCV\_2****: Yes.*

### *…..*

### Summary of Strictness Ratings

#### Preregistration Strictness Ratings:

**Operationalization of the Independent Variable:**

Rating: 0

**Operationalization of the Dependent Variable:**

Rating: 2

**Data Collection Procedure:**

Rating: 2

**Statistical Model Used:**

Rating: 1

**Statistical Inference Criteria:**

Rating: 2

#### Published Paper Strictness Ratings:

**Operationalization of the Independent Variable:**

Rating: 1

**Operationalization of the Dependent Variable:**

Rating: 0

**Data Collection Procedure:**

Rating: 1

**Statistical Model Used:**

Rating: 2

**Statistical Inference Criteria:**

Rating: 1

*>>*