

Study Registration For the KPU Study Registry

The registration information for the study is given below. Each section can be expanded as needed.

1. The title or name of the experiment (for listing the experiment in the registry).

Remote Meditation Support – A Multimodal Distant Intention Experiment

2. The name, affiliation, and email address for the lead experimenter(s) for the study.

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3. A short description or abstract of the purpose and design of the experiment.

The purposes of this project are 1) to assess whether in a distant intention experiment effect sizes can be augmented by the use of experienced meditators as agents who pass a simple psi test 2) to assess the distant intention effect in a multimodal approach by physiological and behavioral variables.

4. A statement or list of the specific hypothesis or hypotheses being tested, and whether each hypothesis is confirmatory or exploratory. ([confirm/explore guidance](#))

Confirmatory hypothesis:

- a) It is hypothesized that in a modified Attention Focusing Facilitation Experiment with 30 selected participants a significant distant intention effect will be found in phasic component of the EDA (i.e. NS.SCR) (physiological variable).
- b) It is hypothesized that in a modified Attention Focusing Facilitation Experiment with 30 selected participants a significant distant intention effect will be found in for the number of button presses (behavioral variable).

Exploratory hypothesis:

- a) It is hypothesized that in a modified Attention Focusing Facilitation Experiment with 30 selected participants a significant distant intention effect will be found in tonic component of the EDA (i.e. SCL).
- b) Individual exceptional experiences, meditation experience, and sociodemographic variables will be calculated to compare for participants failing or passing the Ball Drawing Test (pre-selecting procedure).

5. The planned number of participants and the number of trials per participant.

We will conduct thirty sessions that comprises eight epochs of three minutes. Participants can participate several times in the experiment either in the role of the helper or helpee. Thus we will have a maximum of 60 participants and a minimum of 12. If a participant shows a non-reactive EDA signal defined as less than 10 non-specific SCRs larger than $0.015\mu\text{S}$ during the whole session, s/he will not be invited again to serve as the helpee.

6. A statement that the registration is submitted prior to testing the first participant, or indicating the number of participants tested when the registration (or revision to the registration) was submitted.

We state that the registration will be submitted prior to testing the first participant.

The following additional information is needed for studies that include confirmatory analyses:

7. Specification of all analysis decisions that could affect the confirmatory results, including: the specific statistical test for each confirmatory hypothesis, whether the test is one-sided or two-sided, the criterion for acceptable evidence, any transformations or adjustments to the data, any criteria for excluding or deleting data, and any corrections for multiple analyses. Checklists and examples for registering classical analyses, Bayesian analyses, and classification analyses are provided in the [statistics registration document](#). (This information can be included in section 4 above for simple experiments.)

For the evaluation of the attention focusing experiment a matched sample t-test will be computed to compare helping with non-helping epochs if the data set proves to be normal distributed (Kolmogoroff-Smirnoff test) otherwise a Wilcoxon matched pair test will be computed with significance set at $p \leq .05$ two-tailed. Statistical comparisons between experimental and control epochs' trials will be done on participant level by data aggregation over the 4 helping and the 4 non-helping epochs. The difference between

the two conditions will be analyzed with a matched sample t-test with the phasic component of the EDA and the number of button presses, respectively, as the unit of analysis and significance set at $p \leq .05$ two-tailed. Invalid phasic components and responses will be excluded from the analysis.

If a participant shows less than 10 non-specific SCRs larger than $0.015\mu\text{S}$ within one session this data set will be kept in the main analysis. But an additional sensitivity analysis will be performed in which these trials are discarded.

8. The power analysis or other justification for the number of participants and trials.

For our planned sample size of $N=30$ trials and a power of 0.80 an effect size of $d=0.47$ is assumed.

9. The methods for randomization in the experiment.

A predefined set of balanced sequences will be generated. Out of these we will select for each trial one sequence by a pseudo-randomization procedure embedded in the E-Prime software.

10. A detailed description of the experimental procedure.

Participants will come in pairs to lab. One person is termed the helper the other one the helpee. During the experimental session the helpee tries continuously to regulate his or her attention in a silent meditation. The session is divided into eight 3 min. epochs. In some of these epochs the remote helper is trying to give support, in others not (control). The dependent variables of the experiment will be the number of distractions reported by the helpee as well as the EDA of the helpee. Epochs of remote support will be compared with control epochs.

Inclusion criteria for the role of the helper will be at least three years of meditation experience as well as a continuous practice in the last eight weeks. Inclusion criteria for the role of the helpee are basic experiences with meditation defined as at least eight weeks of continuous practice in the last two years and occasional practice in the last three months. All eligible participants will undergo a pre-testing for the ability to show significant results in psi experiments. In order to pass this pre-test they have to reach at least one significant ($p < .05$) hit rate in one of three indices (number, color, number + color) which will be simultaneously computed from the results of the Ball Drawing Test. Successful participants will be next scheduled for the Remote Helping Meditation part of the study.

We will record two dependent variables, one physiological and one behavioral. The behavioral variable will be the number of button presses of the helpee during the session. The helpee is asked to press the button whenever s/he notices that her mind has wandered away from the focus of attention. The physiological measure will be the Electrodermal Activity of the helpee. This variable will be continuously recorded during

the experimental session. EDA data will be split into a tonic and phasic component by the use of a 10 second time constant. The two respective variables are (1) number of non-specific skin conductance responses (NS.SCR) per epoch and (2) skin conductance level (SCL) calculated as a mean over all measurement points during an epoch.