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).
   Training anomalous cognition in a motor task with subliminal auditory feedback

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.
   [Only elements of the procedure relevant to testing the hypotheses are included below.]
   The purpose of the study is to train anomalous cognition in a motor task with subliminal auditory feedback. The motor task is modelled roughly on the Ouija board. The task is administered on a computer writing tablet on top of which is affixed a 4 inch grid conceptually divided into 16 1-in. squares which are conceptually divided into 4 quadrants of 4 squares each. One of the squares is randomly assigned as the target for each trial. The participant (P) is instructed to explore the grid by moving the computer pen over its surface until their intuition tells them to stop. After they stop for 1 second their response is registered as the corresponding square. If they stop on the target square they get a “square hit” (P = 1/16). If they stop on any square in the correct quadrant, including the target square, they get a “quadrant hit” (P = 1/4). They then resume moving the pen for the next trial. The hit totals are converted to z-scores to standardize them. The average of these two z’s represents “location hits”, which is the dependent variable in the study.

Ps are to complete 2 baseline sessions (runs) at the beginning of the study and 2 test sessions (runs) at the end. All these sessions will be conducted at the RRC. In between, they will complete a minimum of 15 training sessions at home. They will bring their laptop computer to the second baseline session where I will upload the necessary
software and loan them a tablet. The procedure for the training sessions is the same as for the RRC sessions except that after each trial P hears 1 second of Brownian noise. If the trial is a quadrant hit, the noise will have superimposed on it the word “good”. If the trial is a square hit, the words “good good” will be superimposed. Threshold testing at the second baseline session will assure that P hears consciously nothing but the noise in all 3 circumstances. The auditory feedback will not be given in the baseline and test sessions.

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

The only hypothesis is that scoring will be significantly higher in the test sessions than in the baseline sessions. It will be tested for each individual participant separately and for the five participants combined. In all cases the test will be for the significance of the difference between the two location-hit z scores. For the group analysis, the trials of the participants will simply be pooled. Thus in all cases the trial is effectively the unit of analysis. Because the location-hit z-scores are not the standard z-scores with a theoretically defined mean and standard deviation, the significance of “z_{diff}” will be assessed by Monte Carlo simulation. (I have discussed this with Jim Kennedy.) The criterion of statistical significance is p <= .05, two-tailed. A corollary prediction is that the magnitude of the deviation from chance will be greater in the test sessions than in the baseline sessions.

I consider the hypothesis to be exploratory.

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

The plan is to test 5 Ps and for each to complete 120 baseline trials and 120 test trials. Although I consider this unlikely, if I find at any point after the first baseline session (but before the test sessions) that 60 trials in a session is too taxing for a given P, I may lower the run number to, say 40, for all subsequent runs. If that were the case, I would officially score only the first 40 trials of the one or two 60-trial baseline runs.

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.
This registration is submitted prior to baseline testing of 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.)

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


10. A detailed description of the experimental procedure.