

KPU Registry ID Number: 1018. Date Received: 2nd May 2016. This information on the results of a study registered at the KPU Registry was provided by the experimenter and has not been evaluated by KPU Registry personnel.

Report
For the Koestler Parapsychology Unit Study Registry

4/29/16

Report on the Single-Trial Confirmatory Presentiment Experiment

Julia Mossbridge, Northwestern University and the Institute of Noetic Sciences,
jmossbridge@gmail.com

Summary:

The experiment using a \$4 reward was completed and the registered hypotheses were not supported. The experiment using a \$6 was not completed. If/when it is eventually completed, it will likely use different parameters than those originally registered for the \$4 study (see below), so the portion of the originally registered study using \$6 rewards will not be performed.

The confirmatory hypotheses for the formal experiment was that there would be a significant gender x stimulus type interaction for the mean heart rate (HR) measure and that there will be a significant stimulus type effect for the mean HR measure for men.

An exploratory hypothesis was that there would be a significant stimulus type effect for the mean HR measure for women. Another exploratory hypothesis was that the effect size would increase as the reward amount increased; this could not be explored as the \$6 reward was never offered.

Results:

We used the methods exactly as stated in the originally registered experiments to baseline the HR data and to remove outliers. This resulted in a total of 328 participants (after removing 12 outliers), and two non-significant t-tests (female: $p > 0.25$; male: $p > 0.991$). Pre-period means and standard deviations of the inter-beat-interval (IBI; truly "inter-peak-interval) data were as follows:

FEMALE

Future Loss, mean pre-period baselined IBI (in ms): -8.55 ms; SD: 60.21 ms

Future Win, mean pre-period baselined IBI (in ms): -2.18 ms; SD: 60.79 ms

MALE

Future Loss, mean pre-period baselined IBI (in ms): -5.84 ms; SD: 69.59 ms

Future Win, mean pre-period baselined IBI (in ms): --5.72 ms; SD: 71.84 ms

A 2 x 2 (gender x stimulus type) ANOVA performed on the IBI data in the 10-second pre-period to test the confirmatory hypothesis of a gender x stimulus type interaction was also not significant, $p > 0.465$.

In this experiment (but not in a prior experiment), we recorded participant ages and found that 62 participants were over age 35. This could be one factor that made these results different from those expected (see below).

Future Directions:

Because it is possible that participant age increased between the exploratory \$2-reward experiment and this confirmatory \$4-reward experiment (perhaps older participants are more willing to perform the experiment when there is a higher reward), and because we know that gender differences in heartbeat patterns are influenced by age, in future experiments we will perform exploratory analyses to determine which age group, if any, shows the presentiment effect using this single-trial method and a \$4 reward. Further, because it may be the case that larger rewards produce presentiment that is detected earlier in time prior to the announcement of the reward, future exploratory studies will record data for a longer period prior to and after the announcement of the reward, and exploratory analyses will be used to determine the best pre-stimulus window for observing the presentiment effects, if any. After such exploratory experiments are performed, we plan to register any confirmatory experiments with Koestler.