

REPLICATION IN PARAPSYCHOLOGY: THE CORRELATION MATRIX METHOD

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Background: The Correlation Matrix Method (CMM) is theoretically supported by the Model of Pragmatic Information (MPI) (von Lucadou, 1995) and the Generalised Quantum theory (GQT) (Atmanspacher et al. 2012). CMM argues to measure non-local correlations produced by generalised entanglement as an explanation to parapsychological phenomena.

Aims: The aim of the project was to study and contribute to the progress of the Correlation Matrix Method (CMM), by conducting a software validation and three new independent pre-registered CMM replication experiments. A Psychokinesis task was given to participants to test that more significant correlations were produced under the mental influence of participants against the control system.

Method: The studies were pre-registered, ethics were obtained from University of Edinburgh committee and consent from participants. A laptop with windows XP and a random number generator (RNG) was used to collect data. A fractal Mandelbrot image was shown on the laptop screen and participants were asked to mentally influence the movement of the fractal. The movement of the fractal was created by the RNG and participants had to press a keyboard key for a new RNG movement to be shown on the screen.

Variables produced by the participants and by the RNG were recorded for analysis. Each study is composed by 200 sessions, each session has 720 trials or participant key presses.

Two methods of analysis were performed, the original method used by Lucadou, and the permutation method that was introduced as an improvement to the analysis.

Results: The hypothesis tested whether a greater number of significant correlations would be produced when participants were trying to mentally influence the fractal, than when there was no participant and the system ran alone or against the permutation method. The three studies were exact replications between them. For study 1 a successful result obtained a p value 0.0005, study 2 achieved a $p=0.0003$ and study 3 shown a $p= 0.001$.

Conclusions: The significant results of the three studies show that participants impact on the creation of randomness. According to the results, the RNG has different behaviour when participants mentally try to interact with it than when it runs alone without participants or against a random permutation. As such, psychokinesis should be further investigated.

Keywords: Psychokinesis, Consciousness, Correlation matrix, Quantum measurement, Observer effect

Publications:

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