DOES GANZFELD STIMULATION ELICIT A SHIFT AWAY FROM NORMAL WAKING CONSCIOUSNESS, AND IS THIS ASSOCIATED WITH ESP TASK SUCCESS?

Chris A. Roe, Hayley Barton, Ewen Maclean & David Saunders

University of Northampton, UK

Grant 269/16

Background: The ganzfeld technique has been used since the 1970s as a means of eliciting extrasensory perception effects under controlled laboratory conditions. It has been a popular experimental approach, resulting in 113 experiments by 46 different principal investigators, consisting of 4,841 trials (Tressoldi & Storm, 2021), and has proven successful, yielding a mean hit rate of 31.4% where chance expectation is 25%, $p = 1.88 \times 10-24$. The reason(s) why the technique might be psi conducive are debatable, however. It was originally believed to "provide a way of approximating the kinds of 'altered states' that have traditionally been associated with psi, particularly dreaming" (Honorton, 1993), in particular hypnagogia-hypnopompia (HG-HP), but to date the physiological evidence for this equivalence is rather meagre (Wackermann, et al., 2002). The methodology adopted in these EEG studies has been criticised (Parker, 2005), and there are concerns about its comparability with standard parapsychological ganzfeld studies.

Aims: Recent technological advances afford a more ecologically valid design, and so the current project is intended to test whether ganzfeld stimulation is capable of inducing a state neurophysiologically reflective of a HG-HP state. Following Wackermann et al., this is measured by EEG correlates of vigilance assessing shifts in frequency spectra from faster to slower activities: α/θ , as measured at site Pz. Variations across participants in their EEG response to ganzfeld stimulation are predicted to correlate with phenomenological measures of shifts in state of consciousness (using the abbreviated Phenomenology of Consciousness Index), and with success at the ESP task.

Method: The study comprises an exploratory phase and a confirmatory phase, each with 20 participants. The design was preregistered with the KPU registry [1076], and received ethical approval [FHSRECSOC00220]. Each participant completes a single 30-minute ganzfeld trial, during which they describe their subjective impressions while their EEG is continuously monitored. Subsequently they are presented with four video clips which they rate in terms of similarity to their mentation. One of these has been randomly selected to be their target, and this is revealed once all judgements are recorded.

Preliminary results: Data collection is ongoing but is scheduled to be completed in early 2024.

Keywords: Extrasensory perception, Ganzfeld stimulation, EEG

E-mail contact: chris.roe@northampton.ac.uk