

Prestimulus Response with and without a Sender: Physiological Evidence for Precognition

Results:

Our dependent variable was the proportion of non-specific skin conductance responses (ns-SCR) that occurred before a stimulus compared to the proportion that occurred before controls.

Using electro stimulation, we found a significant increase of proportional ns-SCRs prior to shocks ($N=50$, $Z = 3.6$, $ES = 0.174 \pm 0.048$, $p = 1.6 \times 10^{-4}$). Similarly, we found a significant effect for audio stimulation ($N = 125$, $Z = 3.27$, $ES = 0.0901 \pm 0.0275$, $p = 5.4 \times 10^{-4}$). With both stimulus types, however, retesting individuals failed to produce significant effects ($N = 80$, $Z = -0.150$ $ES = -0.0010 \pm 0.025$, $p = 0.556$; $N = 27$, $Z = 0.531$, $ES = 0.070$, $p = 0.298$, respectively, for electro and audio stimulation).

We have discovered a major flaw in the previous reported success with prestimulus response that used ensemble averaging in the epoch analysis to demonstrate an effect. We found that such results are driven by the fortuitous distribution of especially large outliers in the prestimulus regions. Therefore, prestimulus response appears to manifest as skin conductance responses in the prestimulus region and not as a general skin conductance level shift. Alternatively, in the parlance of skin conductance research, prestimulus response appears as a phasic rather than a tonic effect.

Published Work:

Spottiswoode, J., & May, E. (2003). Skin conductance prestimulus response: Analyses, artifacts and a pilot study. *Journal of Scientific Exploration*, 17(4), 617–641.

Vassy, Z. (2004). A Study of Telepathy by Classical Conditioning. *Journal of Parapsychology*, 68(2), 323-350.

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