

EEG correlates of mental entanglement at distance

ABSTRACT:

Background

This project was based on the main hypothesis that the human mind possesses non-local characteristics. This means that some of its functions are not bounded by spatial and temporal constraints showing some phenomena similar to those observed in quantum physics between entangled physical objects. If the human mind has non-local characteristics, a connection between two human minds is expected showing an entanglement-like condition with the consequence that they can share information without the use of conventional communication channels. This entanglement-like condition is considered to be the mechanism at the base of telepathic phenomena.

Aims

This project aimed at identifying the shared information of two entangled minds at distance by analyzing their EEG correlates using multivariate analysis methods (MAMs).

Method

The basic protocol consisted of the following phases:

- To create a coherent EEG activity of two participants spatially separated and without any possibility of communicating by using conventional means to simulate an entangled-like correlation between the two minds;
- To identify the information perceived by one participant (sender), analyzing the EEG activity using the MAMs of the second participant (receiver), who cannot predict and see the information perceived by the sender.

Results

The results of one pilot study and two formal ones, show a clear evidence of an entanglement-like phenomenon between pairs of minds even when at great distance. Specifically, the offline analysis of EEG activity using a special classification algorithm based on a support vector machine, detected the coincidences in the sequence of events of the stimulation protocol between the EEG activity of the “stimulated” and the “mentally connected” pairs. The overall percentage of coincidences out of 88 events was 78.4%.

Conclusions

The initial aims of this project were partially fulfilled, giving further insights on how to better explore the entanglement-like properties of human mind. Are these results sufficient to support the hypothesis that human minds and their brains, can be connected at distance? Only multiple independent replications and further controls on further potential methodological and statistical artifacts can support this hypothesis both using our data and different participants.

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Keywords

Mental entanglement, EEG coherence, Nonlocal mind, Multivariate analysis methods

Published Work:

Gioldini, W., Pederzoli, L., Bilucaglia, M., Melloni, S., & Tressoldi, P. (2016). A new method to detect event-related potentials based on Pearson's correlation. *EURASIP Journal on Bioinformatics and Systems Biology*, *11*. doi: 10.1186/s13637-016-0043-z

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