

81/04 - "Photon emission of living witness in human healing and cognitive experiences"

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Abstract:

Introduction: Human subjects show ultra weak photon emission (UPE) in complete darkness. Dark-adapted subjects in darkness respond to a color filter at a few cm from the head. The response is an immediate increase of UPE. The response is systemic; it can be measured at body locations different from the site of exposure. Increase of UPE is commonly seen in stress conditions. It is hypothesized that changes in UPE are associated with sympathetic activation. This study tests the hypothesis that fluctuations in UPE and EEG (alpha suppression) patterns are correlated.

Materials and methods: Simultaneous recording of EEG (parietal left and right in resting state) and UPE (right hand dorsum) was in sitting position. Frequency spectra were computed of every 5 s of EEG while recording. UPE was counted every 0.05 s from the right hand dorsum. Each experiment consists of 15-20 cycles according to the following protocol. After 3 min recording, the subject was exposed to the filter for 20 s, after which recording of UPE and EEG continued for an additional 3 min. This cycle was immediately followed by a next cycle(s) of 3 min pre-, 20s during- and 3 min post-filter exposure.

Left and right brain alpha activity was calculated for 1 Hz bands in the 7-13Hz range. Laterality was calculated for every 5s. Photon count characteristics (mean, variance, skewness and kurtosis) were analyzed for each 5s epoch. Correlation between the photon and EEG parameters were computed both for the 3 min pre-exposure and 3 min post-exposure periods, using these 5s epochs.

Results: Eleven experiments with 204 trials were analysed. Significant correlations have been observed. Photon count distribution parameters (e.g., mean, variance, skewness, kurtosis) were correlated with alpha intensity in several bands (7-8 Hz, 8-9 Hz, 9-10 Hz, 10-11 Hz). The same photon count parameters were also correlated with laterality in the 7-8 Hz and 10-11Hz bands. The correlations occur predominantly in the period preceding the filter exposure.

Conclusion: Correlations between photon emission and brain wave activity suggest a degree of coupling between the spontaneous fluctuations in the photon field and the spontaneous fluctuations in alpha activity. Data also suggest that a stress event (i.e., exposure to filter) disturbs this coupling. This indicates that subtle effects may be observed only in systems with a high degree of coupling (coherence).

Keywords: Photon emission, EEG, laterality, coherence