

Could 'Biophoton Emission' be the Reason for Mechanical Malfunctioning at the Moment of Death?

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ABSTRACT

Near-Death experiences (NDEs) and End of Life Experiences (ELEs) provides new insights into the nature of consciousness (mainly into its non-local and non-material aspects). Knowing the extent of implications these could have in the science of consciousness, numerous studies have been carried out to demystify the mechanisms and processes involved in the generation of NDEs and ELEs. One such phenomenon; well discussed in NDEs and ELEs literature, that received very less attention from the scientific community is malfunctioning of mechanical objects (such as clocks stopping, malfunctioning of TVs and other electronic devices, etc.) starting at the moment of death in the room of a dying person. On the other hand, there has been little evidence suggesting the bulk emission of biophotons during the time of devastation or death. Considering the results from few recent scientific investigations that demonstrate the role played by biophotons in triggering potential changes in the processing of mechanical objects, here we propose that specific mechanisms involving biophoton emission could probably be related to unexplainable phenomenon surrounding the moment of death. In this regard, the present note acts as a starting step and calls for more experimental investigations that could decode the mystery behind such events and thereby verify the present hypothesis.

Key Words: biophotons, near-death experiences (NDEs), end of life experiences (ELEs), mind-matter interaction, emission

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"Matter of itself has no power to do, to make, or to become. It is in energy that all these potentialities reside, energy invisibly associated with the material system, and in interaction with the energies of the surrounding universe."

- D.W. Thompson (1917)

Introduction

Recent scientific investigations reveal that there could be an inherent connection between biophotons (having localized human origin) and non-local human-machine interactions (via quantum processes; Persinger *et al.*, 2014). Biophotons are photons (ultra-weak particles) of

non-thermal origin usually emitted by every biological system or living organism. Although human body emit biophotons (also called ultra-weak emissions (UWE)) in the spectrum close to the human visible range (400-700nm), because of its very low intensity (which is the order of magnitudes lower than human sensitivity levels), one can't detect them directly using our sensory

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faculties. Some propose biophotons to be epiphenomenal resulting from the cellular metabolic activity and other physiological mechanisms (Apel and Hirt, 2004), but others argue biophotons to have phenomenal existence with deeper functional purpose (Pressman, 1970; Sedlak, 1967; Bokkon, 2005, 2009; Dotta and Persinger, 2011; Dotta *et al.*, 2012; Rubik, 2015).

Numerous studies have indicated a non-trivial connection between various psychophysiological states (in a human) and emission of biophotons (that shows different quantitative and qualitative aspects; Dobrin *et al.*, 1975, 1979; Amoroso, 1999; Vekaria, 2003; Van Wijk and Van Wijk, 2005; Van Wijk *et al.*, 2006; Dotta and Persinger, 2011; Dotta *et al.*, 2012; Persinger *et al.* 2014; Rubik, 2015). Biophotons are also known to carry information crucial for both intra and inter-cellular communication (Inyushin, 1978; Popp, 1998; Wnuk and Bernard, 2001; Rubik, 2002b; Sun *et al.*, 2010; Rubik, 2015), as well as for interaction and communication across organisms (Chwirot *et al.*, 1987; Popp *et al.*, 1992; Popp and Belousov, 2003; Korotkov *et al.*, 2004; Popp, 1998; Rubik, 2015). Following this, there exists a possibility that biophotons could act as subtle interfacing and communicating agents between humans (or for say any biological entity) and local exterior objects (if such an event is probable). Investigating on these lines, Persinger *et al.* (2014) studied the role played by cerebral biophoton emission in triggering potential changes in the processing of mechanical objects. They experimentally demonstrated the quantitative relationship between biophotons emitted due to cerebral activity and deviations caused by random fluctuation in the electronic device. Here, the nature of biophoton emission is in turn associated with the specific psychological state such as intention, imagining etc (Dotta and Persinger, 2011; Persinger *et al.*, 2014). In this regard, the present note can be considered as a short commentary quoting possible application for various research studies conducted in the domain of mind-matter interaction.

Biophoton emission and phenomenon surrounding the moment of death

Near-Death experiences (NDEs) are a spectrum of transpersonal experiences that occurs to specific subjects under certain clinical conditions (like cardiac arrest, brain injury etc). They usually

involve experience with vivid memories and a great clarity of thought (Greyson, 2000a; Roe, 2001; Van Lommel *et al.*, 2001; Bardy, 2002; Irwin, 2003 (Chapters 11 and 12, pp. 163–196); French, 2005; Parnia and Fenwick, 2002; Parnia *et al.*, 2014). On the other hand, End of Life Experiences (ELEs) are altered experiences associated with the dying process itself and finally death (Osis and Haraldsson, 1977; Brayne *et al.*, 2006, 2008; Fenwick *et al.*, 2007; Fenwick and Fenwick, 2008; Fenwick, 2010). NDEs and ELEs provide new insights into the nature of consciousness (mainly into its non-local and non-material aspects), and other functional mechanisms (Parnia *et al.*, 2001; Parnia and Fenwick, 2002; French, 2005; Parnia *et al.*, 2014). They challenge the classical scientific theories of consciousness, which propound it to be epiphenomenal; emerging as a result of specific neuronal activity in the brain (localized and compact structure). Considering NDEs and ELEs in such studies offers a non-local and non-material extension to the reductionist and deterministic models of modern science. Knowing the extent of implications these could have in the science of consciousness, numerous studies have been carried out to demystify the mechanisms and processes involved in the generation of NDEs and ELEs (Parnia *et al.*, 2001; Bardy, 2002; Greyson, 2000a; Parnia and Fenwick, 2002; French, 2005; Mobbs and Watt, 2011; Parnia *et al.*, 2014). But in vain, even to the present day we don't have any complete theoretical/experiment model that could explain and capture the spectrum of experiences associated with the above-mentioned phenomena.

Hundreds of cases which quote few odd phenomena surrounding the moment of death are reported (Osis and Haraldsson, 1977; Roe, 2001; Irwin, 2003; Brayne *et al.*, 2006, 2008; Fenwick *et al.*, 2007; Fenwick and Fenwick, 2008; Fenwick, 2010). One such phenomenon that received very less attention from the scientific community is malfunctioning of mechanical objects starting at the moment of death in the room of a dying person. It is well discussed in NDEs and ELEs literature that mechanical malfunctioning such as clocks stopping, malfunctioning of TVs and other electronic devices, etc. are usually observed, indicating some intrinsic or underlying connection between mechanisms involved in dying phenomenon and the way in which the mechanical objects function



(Fenwick and Fenwick, 2008; Fenwick, 2010). Since, there has been little evidence suggesting the burst/bulk emission of biophotons during the time of devastation or death (probably resulting from the rupture of biological tissues or from other physiological mechanisms; Gurwitsch, 1959; Gaulin, 1977; Korotkov, 1998, 2000; Rubik, 2015); it is obvious to connect such activity to the observed phenomenon at the time of death. In this connection, we propose that research study by Persinger et al. (2014) quote the possible mechanisms (various quantum processes) involved in the occurrence of such event at the time of death. They report strong photon-electron interactions between cerebral activity (local source of biophotons) and electronic devices, thereby pointing too powerful *neuroquantological* processes in the background. Even though one can't be sure of our proposal in the first instance, considering the research study by Persinger *et al.* (2014) and others reveal (Gurwitsch, 1959; Korotkov, 1998, 2000) that there could be some possible (non-local) connection between biophoton emission during

death and mechanical malfunctioning in the rooms of the dying. Experiments that capture and analyze (qualitatively and quantitatively) the emission of biophotons from a dying person and those considering their potential role to influence local mechanical objects could help in supporting the present hypothesis.

Conclusion

Considering the results from few recent scientific investigations, here we propose that specific mechanisms involving biophoton emission could probably be related to unexplainable phenomenon surrounding the moment of death. There have been no previous scientific studies along these lines to try and understand possible mechanisms involved in the occurrence of these events. In this regard, the present short note acts as a starting step and calls for more experimental investigations that could decode the mystery behind such events and thereby verify the present hypothesis.

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