

## Book Review

# LIFE AND MIND: *IN SEARCH OF THE PHYSICAL BASIS*<sup>1</sup>

Savely Savva, M.S., (Ed.)

Review by T. M. Srinivasan, Ph.D.

This recent book proposes to introduce new physics of life and mind. The editor says that the current science “does not seem to have any concept of, and ignores the need for an understanding of the organism’s general control system.”<sup>1(p.i)</sup> In other words, at present, a comprehensive model of the human system that includes mind and consciousness is not available. Both physics and its sister discipline, biophysics do not concern themselves with the role of mind and consciousness in the health of organisms. An even more fundamental question of what constitutes life is not addressed seriously by modern science. This book attends to these issues and provides an overview to open new vistas in this area.

The book is presented in three parts: Part I on Biofield Control Systems, Part II on Paradoxical Observations and Part III on Alternate Physical Models. The contributions are both unique and topical. Half the papers are from Russia and Romania, with the other half coming from contributions of USA based researchers. It is also interesting to note that most of the US contributions provide a model for anomalous behavior of systems and people.

Part I starts with an introduction to biostructures and biofields. Russian Biologist Alexander Gurwitsch proposed as early as in 1912 that certain “fields” might be acting upon embryonic cells directing and orienting them in some manner.<sup>1(p.27)</sup> Hence he introduced “kraftfeld” or a force field that acts even up to the level of macromolecules, ordering the system into biologically useful and interacting entities (perhaps lowering entropy of the environment). This

kraftfeld along with the capacity for self-organization gives an idea that living systems could not be reduced to physico-chemical laws. A profound question is asked by one of the authors, Lev Belousov: “How do we deal with this ‘anti-physical situation’ in biology, namely, with a crucial dependence of holistic macroscopic laws on micro-machinery that is too complex to be organized either spontaneously or by a kind of a random search?”<sup>1(p.34)</sup> Perhaps kraftfeld or the biofield approach could answer this question more fully than any other model so far postulated.

**B**iofield of the above model is modified to Biofield Control System (BCS) by the editor, to take into account field-like non-electromagnetic control systems in the organism. It is postulated that BCS includes all control mechanisms we find in a cell and up to the entire organism including the mind of the organism. Thus, four interdependent but distinct control systems seem to operate within an organism: nervous, chemical, electromagnetic (including biophotons) and a control system that is seen in the practice of acupuncture (related to chi and prana).<sup>1(p.9)</sup>

A persistent problem in biology is the distinction between dead matter and matter endowed with “life.” Basically, the question is: “What is life?,” a question that Erwin Schrödinger tried to answer in his small book half a century ago. G. Drochioiu from Romania makes a bold statement that “there is no life without biostructures.”<sup>1(p.44)</sup> Now we need to understand what a “biostructure” is. A biostructure is one that maintains “life processes” and the related chemical reactions. This seems to be a circular reasoning; however, a detailed presentation is given to make this statement clear. We might say that molecular structure + kraftfeld = biostructure.

Many details of hierarchical structures and fields are given in the second section which makes interesting reading. A new view of biology emerges that seems to be consistent with the results of earlier and very popular biological experiments. Even classical experiments resulting in a sodium pump model in cellular matrix is better explainable through the biostructure concept. Further, we are provided with other observations such as the biosynthesis of iron isotopes (read, nuclear reactions) and a survey of bioenergy effects in inanimate, animals, humans and a few in-vitro studies. All these point to the existence of biofields in and around humans. Some experiments have shown the usefulness of

bioenergy therapy in increasing immunity in cancer patients, promote tumor death and increase survival of tumor-induced animals. More and carefully executed work is required for bioenergy therapy to be accepted by mainstream professionals.

The most exciting part of the book for this reviewer is the third part wherein possible physical models are discussed. This part starts with a forceful paper by John O'M Bockris; this is important to anyone interested in the history of science and technology. Bockris briefly presents non-viability of theories such as Darwin's evolution and Einstein's theory of relativity and even the much-touted Big Bang theory of evolution of the universe. After a brief presentation regarding the deficiencies of these popular theories, he concludes ". . . what may be called the pillars upon which fundamental science rests, are in collapse." It is a strange fact of scientific research that theories that are popular and supported through research are those that are approved by pundits in the field. Those who are not in tune with what is popular in scientific circles (read, liked by the professors) are brushed aside.

**S**tudy of paranormal phenomena has given rise to an urgent need for introducing a new paradigm in physics. The editor's statement at the end of his own paper is indeed an eye opener: "No immediate gratification may be expected but there are no other ways to solve existing problems."<sup>1(p.19)</sup> Psi phenomena including clairaudience, remote viewing, healing of various modalities and many related processes including life and its preservation require a new biophysics at the earliest. The many anomalies found in laboratories around the world dictate a new paradigm in biophysics and this book provides an excellent introduction to such a model.

A few additions could have made the book more useful for a research person. An introduction to the works of Drs. Harold S. Burr, Björn Nordenström and Robert Becker could provide a back drop in developing the Bio Control System theory. These scientists have worked with electromagnetic signals in the body in a fundamental way to classify and detect changes in organ function in health and disease. Dr. Burr introduced the concept of electro-dynamic fields or L-fields as he called them after exhaustive measurements in the biological system. Dr. Burr found that the electro-dynamic field of the body serves as a matrix that preserves the arrangement and shape of the molecules within the

influence of the field. Similarly, the works of the other two scientists reveal different electromagnetic control systems in the body. An introduction and a comparison of these fields could have made this book even more informative from a research point. It is hoped that the editor could include these topics in the next edition of the book.

The editor is to be congratulated for an excellent presentation bringing experts from many fields from around the world. Lack of a subject index at the end of the book is a handicap for many interdisciplinary workers consulting this book. However, this is a minor difficulty considering the amount of excellent research material available in this volume.

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#### REFERENCES & NOTES

1. Savely Savva, M.S., (Ed.), *Life and Mind: In Search of the Physical Basis* (Trafford Publishing, Victoria, BC, Canada, 2006), Pages 262.

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