

DEMYSTIFYING THE AKASHA  
Consciousness and the Quantum Vacuum

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## Preface

From Ralph:

Since my first visit to India in 1972, I had been thinking about mathematical models for consciousness. Thanks to the West Bengal University of Technology and the Fulbright Program of the US Department of State, I was able to visit Kolkata for four weeks in 2006. Again in 2008 and 2009, with help from the Indian Statistical Institute, Kolkata (ISI), I was able to return for short visits. During all three visits I was lodged in the Ramakrishna Mission Institute of Culture (RMIC), which was a spiritual and intellectual haven. During my 2006 visit the RMIC hosted an International Conference on Science and Consciousness, to which I was happily invited. Here I discovered among scientists an openness to consciousness studies which is as common in India as it is rare in Europe and the US. I was lucky to meet Professor Sisir Roy of ISI, who epitomizes this openness, and we began the collaboration which manifests in this book.

In one of Ervin Laszlo's books on consciousness and the quantum vacuum, I wrote in the Foreword, "When a great grand unified theory will appear it will very likely conform to the prophetic vision of Ervin Laslo."<sup>1</sup> Behind this conditional expression hides a pessimistic view of the quantum vacuum field as the basis of consciousness, as advertised in his subtitle of this book, *Foundations of an Integral Science of Quantum, Cosmos, Life, and Consciousness*. So indeed, I never expected to be the coauthor of a book such as this one, based as it is on the mathematics of the quantum vacuum!

However, my meeting with Sisir in Kolkata in 2006 naturally led to a joint work on the mathematics of the quantum vacuum (see Chapter 7) having nothing to do with the science of consciousness, while simultaneously, the RMIC conference was ongoing. As we have meditation practice in common, it was not long before we adapted our model for the quantum vacuum to a model for consciousness (see Chapter 8).

I am deeply indebted to the Fulbright Program, WBUT, ISI, and the RMIC for support and encouragement in my part of this joint work with Sisir. And we are both very much indebted to Professor Debabrata SenSharma of the RMIC Indology Research Center for many kindnesses, including patient and extensive instructions in his specialty, Kashmiri Shaivism. Thanks also to our alpha readers: Paul Lee, Steve Rooke, and Aubrey Miller. Finally, my wife, Ray Gwyn Smith, and our dog, Shea, have been very supportive throughout the process.

Santa Cruz, May 14, 2009

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<sup>1</sup>(Laszlo, 2003)

From Sisir:

I have been working on Planck scale physics and discreteness vs continuum of spacetime since the beginning of the 21st century. The epistemological issues involved in this context attracted me towards Buddhist and Yoga philosophy. Buddhist scholar Vasuvandhu made a critical analysis of discreteness vs continuum, and the Hindu scholar Kanad propounded the concept of atom, many centuries ago. In this process of learning the various epistemological debates, I met Professor Ralph Abraham and his deep interest in these issues. So a fruitful collaboration began and led to this book. My wife Malabika Roy has been very supportive and helped me a lot in clarifying these epistemological debates among Buddhist and Hindu scholars.

Kolkata, May 14, 2009

## HISTORICAL INTRODUCTION

Perhaps we should waste no time in explaining what we mean by the word consciousness, as it is a difficult word, and occurs so frequently in this work. Besides its more common meaning of individual mental awareness, it may also include the personal unconscious system, and the collective mind, conscious and unconscious. It is this latter meaning that we generally intend by this word.

Models for consciousness mostly use the apparatus of mathematical physics: curved spaces, continuous fields, dynamical systems, and so on. The field metaphor for consciousness has a long history in India, where the *ākāśa* (akasha), or ether, is one of the five elements of the material world. In the medieval literature of Kashmiri Shaivism, the metaphor of *spanda*, or vibration, is fundamental to a model of consciousness with many *tattvas*, or levels or categories, and implies an awareness of the field concept. There is also an ancient awareness of the etheric field in the West, as for example in the *apeiron* of the Greek philosopher Anaximander (6th C. BCE).

In the West, the field model – initially popularized by Madame Blavastky (1877), Teilhard de Chardin (1955), Fritjof Capra (1975), Itzhalk Bentov (1977), Rupert Sheldrake (1981), and others – has become widespread. Up to 1991, all of these developments have involved only continuous fields and their vibrations, like water waves, good vibrations, waves of consciousness, and the like.

Meanwhile, after the revival of ancient atomistic thinking in the quantum revolution around 1900, quantum fields have entered the conversations of mystics as well as scientists, such as Fred Alan Wolf (1981), Amit Goswami (1986), and Ervin Laszlo (1987). Specifically, it is the quantum vacuum field or zero point field of quantum field theory that has come to the fore as a favorite metaphor in consciousness studies, and even identified explicitly with the akashic field in a series of books by Ervin Laszlo since 1987.

In this book we have repurposed a mathematical model for the quantum vacuum, originally due to Requardt and Roy (see Chapter 6), as a model for consciousness. Although we have taken this model from the physics of the quantum vacuum, we do not mean to suggest that the quantum vacuum is identical to the field of consciousness. But, we were attracted to this model for its potential to incorporate several effects.

First of all, we wanted our model to be compatible with the so-called paranormal phenomena of individual psychology – telepathy, clairvoyance, precognition, and so on – as the tendency of science to reject the extensive research results on these effects is partly due to the incompatibility of older models for consciousness. This historical incompatibility is particularly troublesome in the case of the time-dislocation phenomena – precognition, presentiment, and retrocausation – as we explain in Chapter 5.

Secondly, we wanted to contribute a new insight to the infamous mind/body problem –

following a suggestion of the late Maurice Merleau-Ponty (1968) in placing consciousness external to physical spacetime.

Thirdly, we wanted to incorporate the entanglement of consciousness (analogous to the nonlocality of quantum physics).

Finally, we wanted to build upon the extensive philosophy of the West (the esoteric tradition of the soul and spirit from Plato to Jung, see Chapter 1) and the East (the tattvas and spanda of Kashmiri Shaivism in the Sanskrit tradition, see Chapter 2).

Our model, incorporating these several effects is fundamentally digital, and thus falls into the category the digital philosophy (see Chapter 3).

We discuss the background data (philosophy, quantum concepts, and parapsychology) in Part One. Then in Part Two, we present our model step-by-step.

All these threads are brought together in the Conclusion. Our main discussion, on the construction of continuum spacetime from the discrete akasa, is meant to be potentially compatible with process physics, as well as with general relativity.

The Sanskrit word *akasa* (ether or space) derives from *a* (towards) and *kasa* (to be visible, to appear). Akasa is the subtle "background" against which everything in the material universe becomes perceptible.<sup>2</sup>

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<sup>2</sup>(Yogananda, 2007; p. 867)



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