Chapter 18
Yoga and The Physics of Higher States of Consciousness

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ABSTRACT

Higher states of consciousness are developed by meditation, defined by Patanjali as that which transforms focused attention into pure consciousness, the 4th state of pure consciousness - a major state in its own right, with its own physics, that of ‘experience information’. Phenomenologies of states 5 to 7 are explained from the perspective of modern physics and quantum cosmology. The role of the 5th state in life is to make possible witnessing states 1 to 3 resulting in ‘Perfection in Action’. Refinement of perception involved in the 6th State results in hearing the Cosmic Om, seeing the Inner Light, and seventh sense perception. All require special amplification processes on pathways of perception. Unity and Brahman Consciousness and their development are discussed with examples from the great sayings of the Upanishads, and similar cognitions like those of poet, Thomas Traherne. Throughout, supporting physics is given, particularly that of experience information, and its implications for Schrodinger’s cat paradox and our scientific understanding of the universe as a whole.

INTRODUCTION

Recent advances in information theory (Hankey, 2014, 2015) have revolutionized our understanding of the physics of experience, and the means by which mind influences the body and external universe (Hankey, 2016). Instead of using the physics of stable systems to govern their regulation, organisms specifically use the physics of instability, realized at critical points of all kinds, at the loci of control of their regulatory systems. Organisms’ loci of control are centered at criticality (Kauffman, 1995), and stabilized by the principle of self-organized criticality (Bak, Tang, & Wiesenfield, 1987). These represent two of the main laws of complexity biology, and have among their consequences that, (a) organisms do not give fixed responses to fixed stimuli (Hankey, 2015), and (b) information states at their loci of control are not digital information states, but the far more complex information states of critically unstable systems (Hankey, 2014) (a) means that no organism can be considered a merely mechanical system, as biologists

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working from principles of biochemistry and molecular biology have long thought; while (b) provides a theory of how organisms support a ‘self’ with a sense of agency at the basis of cognition and action. The new physics of information states supporting experience, now known as ‘Experience Information’, forms the basis of the analysis of Yoga psychophysiology presented here, and in particular the physics of the various ‘higher states of consciousness’, and how they develop.

For an organism to become aware of the intrinsically self-referral state of pure Self awareness at the basis of experience, a procedure is needed to reduce the mind’s mental and affective content to zero, until only the awareness of ‘Self’ remains. Such procedures generally go under the name ‘meditation’, so we start with a brief discussion of meditation techniques (Travis & Shear, 2010), including definitions of meditation ancient and modern. Since regular meditation presents the means to develop higher states of consciousness, the physics of the mind’s cognitive states, and the physics of meditation (Hankey, 2015; Shetkar, Hankey & Nagendra, 2016b) form the basis for understanding physics necessarily exhibited by higher states of consciousness. Such is the rationale behind the organization of this chapter.

YOGA AND MEDITATION

Yoga was an integral part of upbringing and education in India’s ancient Vedic civilization based in the Sapta Sindhu river system of North-Western regions of South Asia. Commercial seals from Harappa and Mohenjo-Daro dating back to 3,500 BCE depict figures in the lotus posture (Danino, 2010). The civilization’s literature, the Vedic literature, eloquently describes practices of meditation, preparations for its practice, and the results of prolonged practice (Radhakrishnan, 1978). The earliest Upanishads make clear that meditation was regarded as a central procedure for the development of qualities essential to functioning as a Rishi, and becoming a leader of that society.

Meditation is thus an ancient procedure of Yoga, and necessarily an integral part of its proper practice. In explaining Yoga as a means to develop Kaivalya, the state of liberated consciousness established in which Rishis were able to guide souls to states of spiritual freedom, Maharishi Patanjali (See Patanjali, Yoga Sutras, Translation) (Shearer, 1982) divided Yoga into eight ‘limbs’, with five outer limbs (Bahirangas), and three inner limbs (Antarangas) representing successive aspects of the meditation process: Dharana, focus of attention, Dhyana, maintaining the focus in way that allows the mind to lose it, and Samadhi, the deepest state of mind, often equated with merging of awareness or the attention with the source of thought. Pada (Chapter) III, Sutra (Verse) 4 of Yoga Sutras (Shearer, 1982) explains that with sufficient experience and practice these three processes can be unified into a single far more powerful procedure named Samyama, the means for developing Rishi-like qualities of consciousness i.e. higher states of consciousness. Samyama is said to be the true essence of Yoga, as far beyond the Antarangas as the Antarangas are beyond the Bahirangas. (Yoga Sutras, Pada III, Sutra10) (Shearer, 1982)

In this treatment, we shall simply equate meditation, Dhyana, with the process that transforms focus of attention, Dharana, into unbounded awareness or Samadhi, pure consciousness. In contrast some modern schools of Yoga such as those springing from Krishnamacharya and carried forward by his pupils like Patabhi Jois and B.K.S. Iyengar either principally focus on, or only teach, Yoga Asanas, one of the Bahirangas, and only 1/8th of Yoga. They should be known not as Ashtanga Yoga (eight-limbed Yoga), but Ekanga Yoga (i.e. single-limbed Yoga).