

Book Review



***Waking, Dreaming, Being: Self and Consciousness in Neuroscience, Meditation, and Philosophy***

By Evan Thompson. New York: Columbia University Press, 2014, 496 pages, ISBN: 9780231137096 (hard-cover), \$32.95; 9780231136952 (paperback), \$22.95; 9780231538312 (ebook), \$31.99.

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**W**aking, *Dreaming, Being* is Evan Thompson's book-length attempt to make the case for neurophenomenology, the scientific research methodology developed by his mentor Francisco Varela (1946–2001). Given the enthusiasm for Buddhist meditation and for issues between neuroscience and philosophy of mind that Thompson displays, his book can be seen as a continuation of his efforts with Varela and Eleanor Rosch in *The Embodied Mind* (1991), as well as in his own work, *Mind in Life* (2010).

Thompson's prologue, "The Dalai Lama's Conjecture," serves to provide some framing for the book. In that conjecture, the Dalai Lama wondered aloud to an audience whether all states of consciousness—even the state of "luminous consciousness"—require a physical basis of some kind (xx). Thompson began to wonder how to answer the question, given the "cultural and philosophical differences between Western neuroscience and Tibetan Buddhism" (xxii). As Thompson sees it, dialogue is necessary in which both Western neuroscience and Tibetan Buddhism take the knowledge and practices of their interlocutors seriously and thus can challenge each other and be challenged in significant ways.

Thompson asserts that neuroscience needs adept meditators in order to account for the nature of the mind and its relation to the brain, phenomenologically. That being said, Thompson assures his reader that "expanding cognitive science to include meditative insight need not require accepting all the traditional metaphysical beliefs and theories accompanying Indian and Tibetan contemplative knowledge" (xxiv). Thompson closes his prologue by articulating his mentor's vision for neurophenomenology in which "future cognitive scientists would be skilled in meditation and phenomenology, in addition to neuroscience, psychology, and mathematics. And contemplative adepts would be deeply knowledgeable in Western cognitive science" (xxvi).

The introduction to the book lays out its central idea, its structure, and a synopsis of its ten chapters. "The central idea of this book," Thompson states, "is that the self

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is a process, not a thing or an entity.... We enact a self in the process of awareness, and this self comes and goes depending on how we are aware” (xxxix). Thompson sets out to examine the enactive self and the mind according to the threefold nature of consciousness in the *Upaniṣads*: “luminous consciousness,” that which is illuminated by consciousness, and the contents of awareness as possessed by the “I.” The chapters examine this threefold framework of awareness, contents of awareness, and self-experience and “put it to work in cognitive science” (xxxiii).

Thompson notes that the book draws resources from Western philosophy, poetry and fiction, Daoism, and personal experience, as well as Asian sources (xi). Thompson states, “By weaving together these diverse sources, I hope to demonstrate a new way to relate science and what many people like to call spirituality. Instead of being opposed or indifferent to each other, cognitive science and the world’s great contemplative traditions can work together on a common project—understanding the mind and giving meaning to human life” (xi). Thompson offers his book as an antidote to “the resurgence of religious extremism and outmoded belief systems, and the entrenchment of scientific materialism and reductionism”—an antidote that “no longer requires or needs to be contained within either a religious or an antireligious framework” (xi).

Chapter one, “Seeing: What is Consciousness?,” begins with Thompson’s assertion that “the oldest answer to this question comes from India, almost three thousand years ago” (1). Thompson explores the theory of the *ātman* and its four modes (waking, dreaming, deep sleep and pure awareness) found in *Bṛhadāraṇyaka* and *Māṇḍūkya Upaniṣads*. What is put forth in these *Upaniṣads*, according to Thompson, is not “mere speculative philosophy” but “instead a philosophy steeped in meditative experience—in the exploration of consciousness from within using heightened attention, concentration, and awareness” (19). This map serves as a partial guide for Thompson’s book, for he intends to make regular reference to the biophysical processes which underlie the four modes of waking, dreaming, deep sleep and pure awareness.

Chapter two, “Waking: How Do We Perceive?,” explores the issue of perception in waking consciousness through the phenomena of binocular rivalry and attentional blink. Rather than using the schema he had laid out in the previous chapter, Thompson opts to account for these phenomena by means of Buddhist Abhidharma and Yogācāra views of consciousness. The Abhidharma view of consciousness as sequentially linked momentary *dharmas* or phenomena, along with neuroscientific findings from an array of researchers, allows Thompson to present phenomenal consciousness as objectively gappy in its composition; the Yogācāra view of consciousness as a multivalent system of quickly and slowly moving tiers allows him to explain what is going on in the gaps of phenomenal conscious experience. “The Yogācāra view” Thompson states, “enables us to distinguish among the following aspects of consciousness: awareness and its global modulations across waking, dreaming and deep sleep; the particular transitory contents of awareness (what

we're aware of from moment to moment); and ways of experiencing certain contents of awareness as 'I-Me-Mine'" (63).

Chapter three, "Being: What is Pure Awareness?," returns to the Dalai Lama's conjecture discussed in the prologue. Before he moves into his consideration of the conjecture itself, Thompson discusses the genesis of the Mind and Life dialogues and the vision for "contemplative neuroscience" developed by Francisco Varela (68–84). The latter portion of the chapter deals with the conjecture made by the Dalai Lama. Here, Thompson also brings up the Dalai Lama's famous quote about deference to science on certain matters, as well as the caveat to it, which basically states that in deferring to science, Buddhists need to be careful to distinguish between what, on the one hand, science *negates*, and, on the other, what science *does not find*. Thompson notes that there is a "deeper message" to the Dalai Lama's caveat, one that shows the limitations of science itself when it comes to the study of consciousness, namely that we've never observed consciousness through the scientific method (97). Through unpacking this caveat, Thompson concludes that the concept of the physical needs to be reworked to include the mental and the experiential in a non-dualistic fashion; neurophenomenology, of course, allows for such a view to come forward.

Chapters four, five, and six, "Dreaming: Who Am I?," "Witnessing: Is This a Dream?," and "Imagining: Are We Real?," cover the sense of self in the lucid and non-lucid dream states, and their relation to the brain in sleep. The current position on dreaming and its relationship to the sleeping brain in neuroscience, according to Thompson, only gets half the picture, so "a new dream science that includes dream yoga or meditative practices of lucid dreaming can deepen our understanding of this complementary relationship" (110). Thompson covers numerous studies on the dreaming brain, the literature of Borges, Frost, Marvell, and Proust, the thought of Freud and Nietzsche, Adi Śaṅkara and Chuang-tzu, as well as Tibetan Buddhist dream yoga and his own dream experiences to explore the phenomenon of lucid dreaming and its unique sense of self. Thompson finds through his investigation that dreaming, particularly lucid dreaming, is not a hallucinatory wish-fulfilling experience as Freud had thought, nor is it a kind of dissociative state, as some contemporary neuroscientists suppose; rather, lucid dreaming, following the four-fold model of consciousness from the *Upaniṣads*, is a form of waking consciousness—that is, being awake in a dream. The lucidity of waking-life, Thompson concludes, is not exclusive to that state, but is a quality of awareness that can be experienced while awake or dreaming.

Chapter seven, "Floating: Where Am I?," considers the phenomenon of out-of-body experiences for our sense of self and the implications these experiences have for neuroscience. Thompson wonders if these experiences prove the existence of an astral body, as some claim. Through examining studies done using virtual reality simulations and employing the thought of neuroscientist and philosopher Thomas Metzinger, Thompson argues that these experiences are not dissimilar to lucid dreams to a degree that they can plausibly be said to be a kind of subset of lucid dreams. Thompson admits readily that the science is not in on this matter, but he's

quick to add that neurophenomenology could make strides in better understanding these experiences.

Chapter eight, “Sleeping: Are We Conscious in Deep Sleep?,” asks that question and explores what kind of sense of self and consciousness we might have in that state. Thompson recounts debates between the Nyāya and Vedantā schools of Indian philosophy on this matter, expressing a partiality for the Advaita Vedantā position which supposes there is, indeed, consciousness during deep sleep. He uses the Vedantā view to critique the integrated information theory of consciousness developed by the neuroscientist Giulio Tononi. Thompson then moves his attention to Tibetan Buddhist views of deep sleep and the practices of sleep yoga, which share much with Vedantā views. Thompson concludes that the Indian and Tibetan views of deep sleep and their respective practices of sleep yoga can, via neurophenomenology, inform Western scientific views of consciousness in deep sleep, and that sleep yogis as well as “contemplative scholars of the Indian and Tibetan traditions” (268) will be indispensable to future sleep scientists.

Chapter nine, “Dying: What Happens When We Die?,” explores the experience of the dying process from contemplative and neuroscientific perspectives. The view of death in Western medical science, according to Thompson, is deeply inadequate in that it fails to reflect the subjective and existential parameters of death and the dying experience. By contrast, Thompson draws on Joan Halifax’s work on dissolution as well as Atiśa’s nine contemplations on death. He then turns his attention to Tibetan Buddhist views of dying and death, particularly phenomenological accounts of the dying and death experience. Thompson expresses skepticism about the phenomenological nature of Tibetan claims as well as the prospect of rebirth as the experiential basis for testimony about such experiences, preferring to take these textual accounts as symbolic. He discusses near-death experiences, concluding that these do not provide the kind of evidence for what is happening in the brain during a near-death experience that those who cite such cases suppose. Rather, we need to pay greater attention to the existential and subjective elements of the dying process and maintain not-knowing, a toleration of uncertainty in the face of death, in order to do this.

In chapter ten, “Knowing: Is the Self an Illusion?,” Thompson first rejects neuronihilism—which holds that if the self *must* be a reified entity, then the self is an illusion, and that if our *sense* of the self is that it is a reified entity, then this *sense* of the self is an illusion—proffering the Mādhyamika view of the self as an alternative to both neuronihilism and reification. Thompson sets out to describe the self as “I-making” (*ahaṃkāra*) through biological, psychological, and social sets of self-specifying systems. Further, the self is dependent upon a world or an environment for its subsistence and to which it must relate; hence living, in its most basic sense, according to Thompson, “is sense-making in precarious conditions” (328). Thompson relates this conception of living beings as self-specifying and sense-making beings to the notion of the dependent co-arising of the five aggregates of the mind-body complex, then moves to Yogācāra and Mādhyamika views of self-hood. The former

can demonstrate how the complex of consciousnesses misappropriates itself as a stable, reified self. This leads Thompson to ask what is the right sense of I?

Drawing on Candrakīrti, Thompson presents the issue of the proper sense of I as one of language. A proper understanding of self depends on the conceptual means by which we designate it. When the five aggregates (form, sensations, perceptions, mental activity, and consciousness) are the basis of the designation of the pronoun I, rather than a reified self, everything changes. The I becomes performative in nature rather substantive; and while it is dependent on the aggregates, it is not identical with the aggregates. Thompson uses the analogy of an image in a mirror to describe the nuance of his position. “Notice,” he states, “that the mirror image, though observer-dependent, isn’t a subjective illusion. So too the self, though mind-dependent, isn’t a subjective illusion” (365). That said, Thompson does take it that there is something illusory about the self—not its existence, but *how* it exists. “The illusion,” Thompson states, “is taking the self to have an independent existence, like taking the mirror image to be really in the mirror” (365). This view of the self, though derived from Buddhist sources, leads Thompson to a different conclusion about the nature of enlightenment: that “it consists in the wisdom that includes not being taken in by the appearance of the self as having independent existence while the appearance is nonetheless still there and performing its important I-making function” (366). For Thompson, enlightenment doesn’t consist in the abandonment of all I-making; it is a kind of waking up—“a waking up to the dream of independent existence without having to wake up from the dreaming” (366).

As I read Thompson’s book, I was often struck by what I can only call the translation of meditation practice present in it. Buddhists are of course no strangers to translation; however, we often think of translation as involving language—i.e., the translation of Buddhist terms and texts from Sanskrit, Chinese, Tibetan, and so on into English or another modern language. The translation of practices, to my mind involves the same kinds of maneuvers. Let me demonstrate what I mean. Take, for example this passage from Thompson’s book regarding studies done on practitioners of Vipassanā meditation:

the EEG measure provides objective confirmation of a subjective report about experience...the subjective report [from the meditator] provides indispensable information that helps us to make sense of the EEG patterns.  
(77)

The practice of meditation is, in the laboratory, given a new aim—namely, an understanding of the relationship between consciousness and the brain. The traditional Buddhist aim is not negated *per se*, but in this instance there’s a notable new addition made: that the meditator provides the neuroscientist with a kind of account or measurement, thus becoming something not unlike a scientific object of study. The meditator as an object of study by the neuroscientist complicates the very boundary between subject and object, as the meditator is both at once. Moreover, the neuroscientist, allied with the adept meditator and the EEG machine, translates these measurements into an account of meditative experience quite unlike those given in traditional Buddhist accounts of those experiences; that is,

the neuroscientist presents their findings in scientific terms, in scientific literature, for the scientific community and the larger public. These scientific accounts, as the current popularity of mindfulness meditation demonstrates, have quite a lot currency among Westerners.

Thompson's book, as an extended apology for neurophenomenology, can tell us a lot about the ways in which the Buddhist practice of meditation has been translated and what valences of meaning have been introduced into it through that translation. I highly recommend Thompson's book for those who are interested in the ways that meditation is being studied in the scientific context, as well as for those who are interested in contemporary issues in the understanding of Buddhist doctrines in light of the findings of the cognitive sciences.

### **References**

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