

**Evan Thompson, *Waking, Dreaming, Being: Self and Consciousness in Neuroscience, Meditation, and Philosophy*, Columbia University Press, 2015, pp. 453, \$ 32.95, ISBN 9780231137096**

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Drawing upon his unique position as a philosopher of mind and active participant in the ongoing dialogue between neuroscience and contemplative traditions, Evan Thompson offers this remarkable contribution that weaves cognitive science together with Indian and Tibetan philosophical traditions in order to explore consciousness and the sense of self. By mapping the main states of consciousness in which the self dwells, he addresses various issues raised by the meeting of scientific and contemplative fields. What is likely to strike the readers more is Thompson's ability to make the cutting edge of this interdisciplinary research easily accessible: on the one hand he explains what has already been attempted, on the other he depicts the most compelling and thrilling directions for further investigations that only a common project of these two disciplines, the scientific and contemplative, could conduct. With regard to the data sources for this interdisciplinary approach, Thompson stresses the importance of individuals trained in meditation, insisting that they are a crucial link between science and contemplation. This is because such individuals are able to move flexibly and reliably between different states of awareness and can describe their experience from moment to moment. As readers, we quickly come to see them as the main and most promising figures of the book: thanks to their training they are able to enhance the link between first- and third-person perspectives, and they also lead contemporary Western philosophers of mind to consider states of consciousness that have until now been either neglected or dismissed.

Before giving a brief overview of the most interesting passages of the book, a few words should be spent about its structure. Thompson borrows its principal outlines from the Indian yogic traditions (including Buddhism). In addressing the account of consciousness he takes the "threefold framework of awareness, contents of awareness, and self-experience – or what the Indian tradition calls 'I-making' – and puts it to work in cognitive

science” (p.xxxiii). Although we lack explicit references to any sources that could show us how this threefold presentation exists and works in the tradition, nevertheless this framework proves to be particularly useful throughout the book. The sense of self and the consciousness thus identified are explored across a structure that, taken from the Indian tradition as well, encompasses four different states: waking, dreaming, deep sleep and pure awareness. Chapter by chapter, as Thompson touches upon these states, there gradually arises the central idea of the book: the view of the self as an experiential process undergoing constant changes. The self is “a dependently arisen series of events” (p.323); it is not a thing or an entity: “the self is a process of I-ing – an ongoing process that enacts an ‘I’ and in which the ‘I’ is no different from this process itself” (p.326).

The opening chapter casts light on the most fundamental issue: the definition of consciousness. The Author refers to it in terms of experience manifesting itself across the four states mentioned above and he describes it using the threefold framework cited. He also covers the definition of consciousness that Indian philosophy offers, thus pointing out how consciousness is that which makes appearances manifest, apprehends them and in so doing is pre-reflexively self-aware. Another fundamental issue treated in the first chapter concerns the basic differences between the Indian and the modern Western maps of consciousness. The latter focuses on the presence or absence of consciousness and considers waking sensory experience as the basis for all consciousness. The former, on the other hand, focuses on a continuum of levels of consciousness, ranging from the grossest to the subtlest, and considers sensory experience to be gross and dependent on subtle ones.

The second chapter examines the issues of attention and perception in the waking state. Here the Author provides detailed neuroscientific evidence that consciousness is made up of discrete cognitive events, thus confirming the Indian Buddhist theories of Abhidharma philosophy. In particular, Thompson focuses on neuroscientific experiments that show how focused- and open-awareness forms of meditation enhance the brain's ability to organize and structure the sensory flow into discrete moments of awareness.

The third chapter focuses on the vexing question of the relationship between consciousness and the brain as well as issues regarding the primacy of consciousness – in that

“consciousness is our way of being, and it cannot be objectified, that is, treated as just another kind of object out there in the world, because it is that by which any object shows up for us at all” (p.100). Many different positions are discussed, but Thompson ultimately refutes all of these in favour of forging a new understanding of what “physical” means, pointing in a direction beyond the dualistic conception of “consciousness” on the one hand and “physical being” on the other.

Beginning with the fourth chapter, Thompson starts to explore the various states of consciousness, beginning with the hypnagogic state, that is the one leading into sleep, as compared with the dreaming state. The former is depicted as being characterised by “a slackening of the sense of self and a spellbound identification of consciousness with what it spontaneously imagines” (p.122). Since in the hypnagogic state the boundaries between us and the world are blurred, we are not constrained within the waking ego structure and therefore, by getting absorbed in the images we look at, we can tap into different sources of creativity and rest. But when we enter the dreaming state the sense of self is restored and we experience ourselves as the subjects of the dream world. Thompson shows us how the difference between the two states is reflected in a shift in the type of waves emitted by the brain.

What happens when we are able to direct our attention to the dream while knowing that we are dreaming? The fifth chapter uses the Indian and Tibetan meditative traditions to shed light on a state of consciousness that neuroscientists have just begun to explore: lucid dreaming. The Author piques our curiosity by showing us what has already been explored as well as how much there is still left to discover about this state, thanks to the meditators trained in the traditional contemplative techniques of lucid dreaming. While their physiology and brain activity is being measured in the sleep lab, through prearranged eye movements individuals can signal to the outside world (the lab) when their lucid dream begins and specific features agreed upon emerge.

The scientific and philosophical consequences of the tools we now have at our disposal are extensively addressed in the sixth chapter. The potential of lucid dreaming is mainly discussed in the Tibetan Buddhist tradition of dream yoga, and the highest abilities we could acquire through training – by transforming our dreams and working with our emotions – are said to unfold the

lucid experience of seeing through the dream by dissolving it completely, releasing all imagery and “simply being aware of being aware” (p.170). Dreaming seems thus to be trainable in many ways. Therefore, as Thompson suggests, we should change our most common neuroscientific models of dreaming interpretation, because they are unable to explain the dream state in light of what lucid dreaming is and reveals. Dreaming can no longer be seen as a passive epiphenomenon of the sleep state, but rather as an intentional imagination process; a new dream science should combine dream yoga with psychology and neuroscience.

The seventh chapter presents out-of-body experiences, in which we see ourselves from outside our body while nonetheless experiencing it as our own. Thompson presents these states as revelatory about the sense of self: in the dissociation between our body-as-object and our body-as-subject, our sense of self and self-location follows our body-as-subject, that is, the one that holds our spatial perspective. It is true that much is still unclear about these experiences: why can they represent only some things of the environment correctly and not others? Are they a specific kind of lucid dreams? Is it possible to make these experiences repeatable in a rigorously controlled experimental setting? These and many other questions are still awaiting answers.

The eighth chapter examines deep and dreamless sleep. While most neuroscientists today think that it is a state during which consciousness fades away and vanishes, the Indian and Tibetan traditions, identifying it with a subtle form of mind, disclose a completely different perspective on this state of consciousness. According to these contemplative traditions, through meditative training we can actually access these deep levels of awareness. In such states the consciousness is said to be so subtle that it becomes just a “witness consciousness”, awareness that “watches the carousel of sleeping, dreaming and waking, but without participating in this mental whirling” (p.248) and without any sense of ego. Thus, “the progression from deep sleep to dreaming to waking is a progression from subtler to grosser levels of consciousness and embodiment” (p.260). The Author leads the reader through various debates existing within those traditional contemplative accounts and concludes with a challenge for a future “contemplative sleep science” (p.268): if highly experienced meditation practitioners could provide

reports upon awakening from deep sleep, and we could measure their physiology and brain activity, then we could combine the neural and physical data with first-person reports and we would have new evidence that this is indeed a state of consciousness and that it is accessible.

The ninth chapter addresses the issue of the death process. The Author presents here the Tibetan Buddhist account of death, seen as a process of gradual dissolving of the levels of the mind, from the gross to the subtle, and its instructions to face death in meditation. Those readers who are particularly interested in contemplative traditions will find Thompson's reading of the Tibetan Buddhist account of death in terms of a performative "ritualized phenomenology" (p.291) striking and insightful. The chapter also offers two curious phenomena: the *thugs dam*, that is the Tibetan Buddhist meditation practice of abiding in the subtlest awareness at death, and the near-death experience. These are two specific states from which, as Thompson suggests, we could scientifically understand more about how the mind faces death.

The tenth and final chapter closes the book targeting what the Author labels as "neuro-nihilism" (p.324), the neuroscientific view of the self as just an illusion created by the brain. He disagrees with this view and suggests instead an "enactive understanding of the self" (p.324), in which the self is nothing but the I-making process. Coming from a combination of neuroscience and contemplative approaches, it is a fitting conclusion to this sound and inspiring overview of consciousness and the sense of self.

In this commendable research, Thompson skilfully sketches the challenges that contemplative neuroscience has to face and does justice to each side of the disciplinary divide by impartially setting out the strengths and weaknesses of both. While contemplative accounts are able to cast new light on the scientific approach to studying states of consciousness, findings from neuroscientific experimental research can bring accuracy and evidence that are relevant to the different contemplative traditions. Thus, this book is a remarkable introduction to the complexity of contemplative neuroscience, an innovative project that dramatically enriches and problematizes our understanding not only of consciousness, but also of self.

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