

DISCUSSION

## Deep meditation as a valid “scientific” method: A flawed argument

KISHOR PATWARDHAN

**Abstract**

*An interventional neurologist recently responded to my two-year-old article suggesting that Ayurveda should be approached in a qualia-centric manner. He questions the fundamental assumptions of what he calls “Western” science yet tries to use the same to claim that ancient Ayurveda and Yoga masters gained the knowledge of the functioning of human body through deep meditation. He appears to consider deep meditation as a valid scientific method, despite it lacking external validity. At the same time, he advocates for external validity to test Ayurveda therapeutics. I draw attention to this contradiction in his argument.*

**Keywords:** qualia, ethnoscience, meditation, physiology

More than two years after its publication, my simple and straightforward article “Confessions of an Ayurveda professor” published in this journal [1] continues to attract criticism and comments from various experts, with the latest one coming from Anand Venkatraman [2]. He states that arguments like those found in my article arise from “an incomplete understanding of the unified intellectual foundation of Hindu civilisation” and suggests that one should approach Ayurveda in a “qualia-centric” manner.

In my original article, I had cited several resources that prompted me to re-examine my past approach to Ayurveda physiology. One book that gave me the confidence to write and publish the piece was David Robson’s “The Intelligence Trap: Why Smart People Make Dumb Mistakes” [3]. This book is filled with anecdotes about various intellectuals who held impractical and peculiar beliefs and often made unwise decisions. It analyses how experts in one field sometimes use their intelligence to rationalise their unsubstantiated beliefs in areas outside their expertise, and how high general intelligence does not always equate to wise decision-making. Since Venkatraman’s article does not cite even a single primary source of Ayurveda but makes sweeping statements about the epistemology of Ayurveda, in the following paragraphs, I show how Venkatraman’s proposal is problematic.

There are scholars who argue that all *chakras*, as explained in Tantra literature, are nothing but different neuronal plexuses found in the human body that can be observed through cadaveric dissection [4]. In his article, Venkatraman does not make this mistake and correctly states that these *chakras* cannot be found if one dissects a cadaver. However, he goes on to say that in a deep meditative state, one can experience the presence of these *chakras*, implying that such an

experience is beyond the scope of current science — which is problematic. In the article by Alan Sokal that I have cited in my “confessions”, a distinction between these two approaches has been clearly made [5]. While the first approach tries to prove that everything documented in ancient Ayurveda/Yoga literature can be shown to be true using modern science, the latter dismisses the universality of the scientific method by calling science merely a western enterprise.

This does not mean that counter-intuitive observations should not be examined at all. As demonstrated by recent studies, patients suffering from phantom limb pain often experience significant relief when a reflection of their normal arm is shown to them in a mirror, effectively tricking the brain into “seeing” the missing arm [6, 7]. Similarly, showing a videotaped action of “hand washing” can reduce the temptation to wash hands repeatedly among patients with obsessive-compulsive disorder [8]. Simply observing the corresponding limb of the person sitting in front of the patient being massaged can reduce the pain in the phantom limb of some patients [9]. All these counter-intuitive observations have found their scientific explanations in the form of a mirror neuron system, cortical reorganisation, neuroplasticity, etc.

Let us re-examine Venkatraman’s approach. He has tried to explain an imaginary idea of “feet being located above the level of the anus” using current understandings in embryology. Is this not similar to saying that *chakras* can be found through cadaveric dissection? However, Venkatraman goes one step further and says that advanced meditators can experience “the feet being located above the level of the anus” in a deep meditative state. He implies that current science is still unable to validate such experiences. As a reader would figure it, in this case, he is mixing the two problematic approaches that Alan Sokal has identified.

By invoking deep meditation as a valid means of knowledge acquisition, Venkatraman is ignoring the requirement of external validity in science. In such a case, his pleading for application of rigorous methods to identify which Ayurveda formulations work and which ones do not, loses meaning.

Overall, his well-intentioned article makes the core issue of examining Ayurveda for its usefulness more complicated and impractical.

Would Sushruta have refused to use an endoscope if it had been available to him, or would he have asked us to meditate instead? Based on the way Sushruta has explained the use of

different instruments such as the *Nadi Yantra* (tubular instruments used for various purposes, including visualising diseased parts of the body), we can safely assume that he would have happily embraced an endoscope! After all he was the inaugurator of the tradition of cadaveric dissection in human anatomical sciences.

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