



The Difference in Traditional and Contemporary Meditative Pathways

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MEDITATION AND YOGA have become so popular that we not only started devising new interventions based on these practices in the context of health and wellbeing, but in the process, we also deviated from the actual purpose and goals set by different traditions.¹ Numerous scientific studies have been conducted on different practices of meditation to study the efficacy and potential of these techniques. But, neglecting various aspects that are to be taken into consideration, most of these studies are aimed only at delineating the

underlying mechanisms of influence, thus, they involve various issues. Hence, the prime purpose of this paper is to shortlist a few issues in current meditation research and emphasise that meditation has a very deeper purpose and it is not a mere tool to heal nor for enhancing cognitive faculties. The essential message of the ancient traditions is lost and neglected by many present-day practitioners. Therefore, we summarise some obstacles that may surface from the contemporary versions of these practices.

Introduction

Swami Vivekananda said: ‘What we want are is Western science coupled with Vedanta.’² Many great spiritual teachers like Swamiji and Paramahansa Yogananda served as beacon lights by spreading the message of their masters and

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Vedanta to the world, especially in the West. Slowly, the spiritual traditions of the East like Hinduism, Buddhism, and Zen became popular endorsing various practices like yoga and different meditation techniques. Since many people who showed interest have invested their time in practising these techniques and claimed to derive various benefits essential for one's health and wellbeing, this raised interest in the scientific community to study if such claims are true.³ In this context, we now have hundreds of scientific studies on yoga and different practices of meditation.⁴ Here, not just a single technique associated with a particular tradition but a number of potential techniques spanning across various spiritual traditions have been explored.⁵ Such studies truly helped in understanding as to how these practices can support the enhancement of one's cognitive faculties and various other aspects towards wellbeing.

Recently, with the development of more and more sophisticated instrumentation and technologies, science ventured itself into studying and understanding the nature of consciousness. Until this time, the study of consciousness was considered as a philosophical, theosophical, and spiritual subject; though these means of study do not involve various empirical and objective modalities that we presently employ. From an experiential standpoint, one's consciousness seems to appear as a unitary phenomenon resulting from the integration of various sensory inputs associated with the different body components and their interaction with the surrounding environment. But, recently, in the context of consciousness, the main focus has been on studying the brain and its underlying mechanisms.⁶ This is because the brain is considered to be a vital organ and the centre regulating various functional aspects of both the body and the mind; starting from physiological functions of our body to the psychological makeup of our minds.

Since, a day-to-day living experience usually involves three different states of consciousness; wakefulness, dream-sleep—rapid eye movement (REM) sleep—and deep-sleep or non-REM sleep states, it is crucial to study these phenomenal states, in isolation and in relation to the other states, to understand the nature of one's consciousness. Thus, we had several experiments to study various neural mechanisms underlying these different states of consciousness.⁷ Following this, insights from meditation research is also being used to study the nature of consciousness through the three states of consciousness.⁸ In this regard, studies are being conducted to comprehend the experiences of meditation using the other three states of consciousness. In addition, the opposite has also been attempted; to study the degree and level of conscious awareness in different states of consciousness using distinct meditative levels and states.⁹ Having progressed on this line, science realised that it is fruitful not only to study the normal states of consciousness in a healthy subject, but also the perturbations in consciousness; the various altered states resulting from different health conditions and neural disorders.¹⁰ Studying such cases not only adds to our understanding of consciousness but also assists in devising various clinical interventions to help the subjects suffering from these disorders.

In the light of such studies and empirical proof that these practices truly help in the transformation of an individual, many started following these techniques and a greater number of people are now interested in learning these practices.¹¹ There is a large demand for a teacher or a place from where they can learn such practices. On the one hand, though it is good to know that many are interested in learning these practices, on the other, it is sad to see that, some individuals are trying to grab this interest and make use of the situation for their own benefits.¹² Meditation

retreats and anonymous centers started popping up everywhere. New types of contemporary practices and different meditation-based interventions are being developed on the traditional sources.¹³ These are introduced in order to serve various commercial purposes and to meet the expectations of people attending those retreats. We have preliminary evidence showing how some meditation techniques help in developing prosocial behaviors such as compassion and kindness towards others, and in different clinical conditions.¹⁴ In this context, it is truly important to use the potential of science in devising novel meditation-based practices and interventions to help people with such health conditions. But instead, they are developed for catching the demand and popularity of yoga and meditation; which is evident from practices like swimming yoga, aerial yoga, and some new age meditations. In this regard, the prime purpose of this paper is to shortlist a few issues in meditation research and emphasise that the purpose of meditation is not for material gains and cognitive enhancement alone, but for a higher purpose; which is generally neglected by many present-day practitioners.

Science, Traditional, and Contemporary Meditative Pathways

The major issue in studying consciousness is that one can subjectively understand it only through first-person accounts. There is a debate, regarding the translation of first-person subjective experiences to the objective standpoint of second and third-person accounts. Supporting such a view, some claim that we can never possibly understand the meditative states of experience in totality. Consequently, when we study various practices of meditation, we will just be able to note what happens when we adopt a specific technique; in terms of the influential physical mechanisms, and how such influences are different in

comparison to other techniques. But, we won't be capable of decoding at the subjective level the meditative state that will result as a consequence of practising a particular technique. However, we may have various such states of experiences leading to the ultimate state of meditation, as indicated by the traditions.

While it is doubtful if science can ever be able to capture such experiences in order to understand these practices, a few spiritual teachers like Swamiji supported the use of science. This shows that he never saw any contradiction between science and spirituality, and rather emphasised on the need for them to complement each other. A similar ideal has been set forth by His Holiness the fourteenth Dalai Lama as well, on the role of science and the importance of conducting scientific experiments on spiritual practices: 'If scientific analysis were conclusively to demonstrate certain claims in Buddhism to be false, then we must accept the findings of science and abandon those claims.'¹⁵

Here, we have two important things to note when we intend to study these practices. One is the technique which an individual follows and practices, and the other is the state of experience associated with the practice.¹⁶ Sometimes, each technique may be intended or aimed at reaching a particular state of experience, but how and when an individual or a spiritual seeker will attain this state is unique and depends on that individual. This is because, it depends on various factors such as genetic predisposition, life experiences, environmental factors, brain structure, and the individual differences in personality. Taking these into account, there is also an issue in meditation research as to how they compare different individual subjects following the same meditation technique. Considering various aspects on which a person's progress depends on meditation, the time in between the inception of the practice

and the attainment of a final state—which they consider to be the ultimate aim—is comprised of various stages of meditation. These stages can either be in terms of the subjective advancements; where one evolves further following the same specific technique, or a seeker is given a different technique altogether to practice, once she or he demonstrates a particular mastery over the previous technique. There is a possibility that some techniques are devised in a step-wise manner and a seeker mastering each and every technique slowly progresses towards the ultimate goal set by the respective tradition. At each step, as the practice matures, one moves from one state of experience to the other, forming different stages of meditation. Such stages are even mentioned and discussed in detail in Patanjali's *Yoga Sutra*, the spiritual repository of yoga and meditation.¹⁷

In the context of scientific studies, as of today, we have been able only to understand the neural mechanisms underlying different practices of meditation across traditions, but not about the stages of meditation. This is because, at any given time, we are only comparing subjects based on the meditation technique and the number of years of experience. For a detailed analysis of the different stages of meditation, we need studies that trace a novice from the inception of her or his practice until some mastery is gained over the technique. Then a comparison between different subjects should be made to study the efficacy of a specific technique. Even when we normalise all these issues and estimate a proper baseline for comparing subjects in meditation research, still we are not certain, if science will ever be able to indicate the live experience of a person in meditation, in terms of the spiritual states of consciousness, because spiritual traditions often talk and indicate a state of no-experience as one of the highest states of meditative experience.¹⁸ So, considering the complications involved in objectifying the first-person

accounts; how to explain or comprehend the state of no-experience devoid of thoughts, is a big challenge. This is because, now or later, as we progress in meditation research, we are bound to come across the possibility of this state.

As contemporaries view, ancient cultures have devised various practices and techniques like yoga and meditation not only for one's holistic wellbeing; which involves both the physical and psychological aspects, but also to attain a higher state of consciousness. Moreover, as discussed above, they also indicated that there exists a different state of consciousness called *turiya*, which occurs beyond and underlies the known three states of consciousness.¹⁹ Since this is known to be a higher form of consciousness functioning above the other three states, it is also termed as the fourth state of consciousness. Unlike the other three states of consciousness, this state is supposed to be free from any phenomenal content, and hence, it is also referred to as pure consciousness, the content-free consciousness, silent consciousness, or a state of no-experience.²⁰ Although, this state of consciousness is far from the reach of our present understanding of consciousness, recently, a few attempted to study the possible existence of this state using scientific modalities. Studying this state and its relation to the other known states of consciousness may offer new insights into the nature of our consciousness. Knowledge regarding this state may also be useful in understanding various perturbations in consciousness and different clinical disorders of consciousness.

In addition, here we summarise, some contemporary views and the current status of these ancient practices that have been devised to attain the pinnacle of our potential nature of being.

The Role of a Teacher or Guru

Sri Ramakrishna was once asked: 'Is spiritual knowledge impossible without a guru?' He

replied: 'Satchidananda alone is the Guru. If a man in the form of a guru awakens spiritual consciousness in you, then know for certain that it is God the Absolute who has assumed that human form for your sake.'²¹

The role of a teacher or a guru has been emphasised so much in various spiritual traditions. Even in the ancient days, it was never so easy for a teacher to accept a disciple. Highly evolved spiritual teachers used to test their students for earnestness and dedication towards learning spiritual practices, and based on many other aspects, they used to consider them as their disciples. There is a strong notion that a teacher oneself should have followed the path and attained the goal of self-realisation, and only then, on the command from their own gurus, they used to start preaching or teaching others. We have many self-realised masters, as per their guru's instructions, who kept silent and never sought to instruct others. Swamiji said: 'Anyone and everyone cannot be an Acharya (teacher of mankind), but many may become Mukta (liberated)'.²²

Knowing the current status and demand for these practices, meditators who practised a technique for a few years just for the sake of becoming a certified teacher are setting up their own meditation ventures and retreats. They themselves have not achieved the ultimate goal of meditation and are not experienced after a particular stage, and so how can they lead students or practitioners to the goal? This is very important to consider, because, it is not always that the meditation practices are beneficial. Since how an individual responds to a particular practice of meditation is unique and depends on various factors as we have mentioned previously, some techniques may harm them more than being helpful. In addition to this, even inner motivation and intention of an aspirant matters much. In this regard, we want to emphasise the need to choose a right teacher and

place for practising these techniques, and not to become victims of the so-called teachers involved in the commercialisation of these sacred practices. Swamiji said: 'The Guru must teach me and lead me into the light, make me a link in that chain of which he himself is a link. The man in the street cannot claim to be a Guru. The Guru must be a man who has known, has actually realised the Divine truth, has perceived himself as the spirit. A mere talker cannot be the Guru' (8.115).

In the scientific studies of meditation, there seems to be some discrepancy in the participation of a spiritual teacher or practitioner oneself as a co-author of the study. One group suggests that a scientific researcher must have practised and experienced different states of meditation before designing and conducting a study to understand meditation. This is because, having known the difficulty in translating the first-person experiences, only a person with such experiences comes close to any description of the states they experience as a result of meditation. This way they can develop the right methodologies to study and analyse meditation. On the other hand, some report different biases that could possibly surface with the involvement of a person or teacher of the group who practises a particular technique. Themselves being part of the study, they may try to promote her or his meditation practices. So, when we try to study meditation truly using scientific or objective means, we need to set up a balance between these two views.

Accompanying Processes in the Path of Meditation

Here, the main focus is to understand, what makes a meditation practice complete? Whether what we are discussing as different meditation techniques are complete practices not needing any supplementary practices or whether they have to be combined or practised in association with some other practices? In science, when

studying the efficacy of meditation, one comes across various practices associated with different traditions. It is not that each tradition involves or prescribes only one type of practice. **Most of the traditions suggest multiple techniques to follow.** When studying such techniques, science usually considers them to be complete techniques by themselves. But, we have several instances where gurus and spiritual masters suggest and emphasise different techniques for initial and advanced seekers.²³ This shows that they are not complete by itself, either they are part of the step-wise process towards a particular desired state or they need to be supplemented with other things.

For instance, **when we consider mindfulness meditation, there is a possibility that it can lead to a wrong form of mindfulness if not combined with ethical and moral teachings.**²⁴ So, when we intend to understand meditation in a holistic sense, one should also take into consideration these other matters. Since it is central to have a right motivation for an action, meditation should not be treated as a mere practice. As part of the preparatory process, it also involves psychological makeup in the form of spiritual teachings and moral instructions. This is one reason as to why even Buddhist monks spend a considerable amount of time in preparing themselves for the meditation practices. Though, under the umbrella of a right guru, a student need not worry about these things, because the teacher will take care of all the aspects which are essential for the student's spiritual progress and development.

Obstacles in the Path of Meditation


There has also been a great deal of emphasis on the possible obstacles or dangers in one's spiritual progress. Traditions warn and caution on several occasions that one may develop an ego or anti-prosocial like behaviours, as one progresses along the path of meditation. This, in scientific

terms, can be attributed to the development and enhancement of various cognitive faculties after evolving to a particular stage of meditation. Current scientific studies also support the idea that when practising these techniques, one has a greater scope of developing or enhancing these abilities.²⁵ On the development of these potential abilities, one may start to think of themselves as superior to others; this might reflect in their behaviour and day-to-day activities. Spiritual masters severely warned against such things and indicated that it is obvious that an individual would start acquiring such capabilities, but if they start giving importance to them and get caught up there, slowly they will deviate from the actual goal of meditation and they will never be able to attain the ultimate state. They emphasised that one's aim should be to recognise and experience the nature of one's own consciousness and the self.

Conclusion

Science, not considering all the above-mentioned aspects, is just focussed on studying mere techniques and mental practices of meditation. One has to see how science will accommodate all these crucial aspects into its meditation studies. All-in-all, though we support the development of different interventions and use of meditation practices for different health conditions, **we warn regarding the ill-use of these practices.** Meditation is not just a mere tool to heal or bring about one's wellbeing, but it has a very deeper purpose. We suggest that contemporary practitioners should study and understand the essential purpose of meditation before getting initiated into a practice and choose a right teacher, who can help on the path of meditation.

Meditation research is central in order to get new insights into our current understanding of consciousness. In this respect, it is important for science to look for the possible existence of a

state like *turiya*, which is known to underlie the other three states of awareness. Such an exploration can be initiated not only in the context of meditation research, but also from various indications given in the traditional literature. This state is known to subsist between the other three states of consciousness. Therefore, studying the moments in between the other states of consciousness, like the time in-between the onset of sleep and wakefulness, can throw some light on this state and the nature of our self. 

References

1. One of the authors, Sisir Roy, is indebted to Homi Bhabha Trust, Mumbai for their support.
2. *The Complete Works of Swami Vivekananda*, 9 vols (Calcutta: Advaita Ashrama, 1–8, 1989; 9, 1997), 5.366.
3. See *Meditation: Neuroscientific Approaches and Philosophical Implications*, eds S Schmidt and H Walach (Cham: Springer International, 2014) and J S K Reddy and S Roy, 'A Note on the Possible Existence of Underlying Natural Meditative State', *MindRxiv*, 19 July 2018 <<https://mindrxiv.org/fjc7z/>> accessed 04 December 2018.
4. See M B Ospina, K Bond, M Karkhaneh, L Tjosvold, B Vandermeer, Y Liang, *et al.*, 'Meditation Practices for Health: State of the Research', *Evidence Reports/Technology Assessment*, 155 (June 2007); C Braboszcz, S Hahusseau, and A Delorme, 'Meditation and Neuroscience: From Basic Research to Clinical Practice', *Integrative Clinical Psychology, Psychiatry and Behavioral Medicine: Perspectives, Practices and Research*, ed. R Carlstedt (London: Springer, 2010), chapter 27; J S K Reddy and S Roy, 'Commentary: Patanjali and Neuroscientific Research on Meditation', *Frontiers in Psychology*, 9 (February 2018), 248 <<https://www.frontiersin.org/articles/10.3389/fpsyg.2018.00248/full>> accessed 04 December 2018; and D J Lee, E Kulubya, P Goldin, A Goodarzi, and F Girgis, 'Review of the Neural Oscillations Underlying Meditation', *Frontiers in Neuroscience*, 12 (March 2018), 178 <<https://www.frontiersin.org/articles/10.3389/fnins.2018.00178/full>> accessed 04 December 2018.
5. See J D Nash and A Newberg, 'Toward A Unifying Taxonomy and Definition for Meditation', *Frontiers in Psychology*, 4 (November 2013), 806; B Tomasino, A Chiesa, and F Fabbro, 'Disentangling Neural Mechanisms Involved in Hinduism-and Buddhism-Related Meditations', *Brain and Cognition*, 90 (October 2014), 32–40; and C Braboszcz, B R Cahn, J Levy, M Fernandez, and A Delorme, 'Increased Gamma Brainwave Amplitude Compared to Control in Three Different Meditation Traditions', *PLoS One*, 12/1 (January 2017), 1–27.
6. See J Aru, T Bachmann, W Singer, and L Melloni, 'Distilling the Neural Correlates of Consciousness', *Neuroscience and Biobehavioral Reviews*, 36/2 (February 2012), 737–46 <<https://doi.org/10.1016/j.neubiorev.2011.12.003>> accessed 04 December 2018; Tom A de Graaf, Po-Jang Hsieh, and Alexander T Sack, 'The 'Correlates' in Neural Correlates of Consciousness', *Neuroscience and Biobehavioral Reviews*, 36/1 (January 2012), 191–97 <<https://doi.org/10.1016/j.neubiorev.2011.05.012>> accessed 04 December 2018; and Christof Koch, Marcello Massimini, Melanie Boly, and Giulio Tononi, 'Neural Correlates of Consciousness: Progress and Problems', *Nature Reviews Neuroscience*, 17/5 (May 2016), 307–21.
7. See *States of Consciousness: Experimental Insights into Meditation, Waking, Sleep and Dreams*, eds D Cvetkovic and I Cosic (New York: Springer, 2011) and C Dissanayaka, E Ben-Simon, M Gruberger, A Maron-Katz, H Sharon, T Hendler, and D Cvetkovic, 'Comparison Between Human Awake, Meditation and Drowsiness EEG Activities Based On Directed Transfer Function and MVDR Coherence Methods', *Medical and Biological Engineering and Computing*, 53/7 (July 2015), 599–607.
8. See F Travis, 'States of Consciousness Beyond Waking, Dreaming and Sleeping: Perspectives from Research on Meditation Experiences', in *States of Consciousness: Experimental Insights into Meditation, Waking, Sleep, and Dreams*, eds D Cvetkovic and I Cosic (New York: Springer, 2011), 257–72.
9. See A Sharma, *Sleep as A State of Consciousness in Advaita Vedanta* (New York: State University of New York, 2004).
10. See T E Feinberg and J P Keenan, *The Lost Self*:

- Pathologies of the Brain and Identity* (New York: Oxford University, 2005) and A Ananthaswamy, *The Man Who Wasn't There: Investigations into The Strange New Science of the Self* (New York: Dutton, 2015).
11. See J S K Reddy and S Roy, 'The Role of One's Motive in Meditation Practices and Prosociality', *MindRxiv*, (19 June 2018) <<https://mindrxiv.org/czeph/>> accessed 05 December 2018.
 12. See U Kreplin, M Farias and I A Brazil, 'The Limited Prosocial Effects of Meditation: A Systematic Review and Meta-Analysis', *Scientific Reports* 8/1 (2018), 2403 <<https://www.nature.com/articles/s41598-018-20299-z>> accessed 05 December 2018.
 13. See L M Monteiro, R F Musten, and J Compson, 'Traditional and Contemporary Mindfulness: Finding The Middle Path in The Tangle of Concerns', *Mindfulness*, 6/1 (February 2015), 1–13.
 14. See C M Luberto, N Shinday, R Song, *et al.*, 'A Systematic Review and Meta-analysis of the Effects of Meditation on Empathy, Compassion, and Prosocial Behaviors', *Mindfulness*, 9/3 (June 2018), 708–24 <<https://link.springer.com/article/10.1007/s12671-017-0841-8>> accessed 05 December 2018; J N Kirby, C L Tellegen, and S R Steindl, 'A Meta-Analysis of Compassion-Based Interventions: Current State of Knowledge and Future Directions', *Behavior Therapy*, 48/6 (November 2017), 778–92 <<https://www.sciencedirect.com/science/article/abs/pii/S0005789417300667>> accessed 05 December 2018; and N Y Winbush, C R Gross, and M J Kreitzer, 'The Effects of Mindfulness-Based Stress Reduction on Sleep Disturbance: A Systematic Review', *Explore (NY)*, 3/6 (November 2007), 585–91.
 15. His Holiness the Dalai Lama, *The Universe in A Single Atom: The Convergence of Science and Spirituality* (New York: Morgan Road, 2005).
 16. See K R Rao, 'Applied Yoga Psychology: Studies of Neurophysiology of Meditation', *Journal of Consciousness Studies*, 18/11–12 (2011), 161–98; and The Dalai Lama, *Stages of Meditation* (New York: Snow Lion, 2001).
 17. See *Yogavārttika of Vijñānabhikṣu: Text along with English Translation and Critical Notes along with the Text and English Translation of the Pātañjala Yogasūtras and Vyāsabhāṣya*, trans. T S Rukmani, 4 vols (New Delhi: Munshiram Manoharlal, 1981–89); and J H Woods, *The Yoga-Sutra of Patanjali* (New York: Dover, 1927).
 18. See R Manocha, 'Meditation, Mindfulness and Mind-Emptiness', *Acta Neuropsychiatrica*, 23/1 (February 2011), 46–7 <<https://doi.org/10.1111/j.1601-5215.2010.00519.x>> accessed 05 December 2018.
 19. See B Ramamurthi, 'The Fourth State of Consciousness: The Thuriya Avastha', *Psychiatry and Clinical Neurosciences*, 49/2 (May 1995), 107–10; and F Travis and C Pearson, 'Pure Consciousness: Distinct Phenomenological and Physiological Correlates of "Consciousness Itself"', *International Journal of Neuroscience*, 100/1–4 (January 1999), 77–89.
 20. See B J Baars, 'A Scientific Approach to Silent Consciousness', *Frontiers in Psychology*, 4 (October 2013), 678 <<https://www.frontiersin.org/articles/10.3389/fpsyg.2013.00678/full>> accessed 05 December 2018.
 21. M., *The Gospel of Sri Ramakrishna*, trans. Swami Nikhilananda (Chennai: Ramakrishna Math, 2002), 217.
 22. *Complete Works*, 5.268.
 23. See Ramana Maharshi, 'Abide in the Self' <http://www.inner-quest.org/Ramana_Abide.htm> accessed 05 December 2018.
 24. See Matthieu Ricard, 'A Sniper's Mindfulness', 28 April 2009 <<https://www.matthieuricard.org/en/blog/posts/a-sniper-s-mindfulness>> accessed 05 December 2018.
 25. See A Chiesa, R Calati, and A Serretti, 'Does Mindfulness Training Improve Cognitive Abilities? A Systematic Review of Neuropsychological Findings', *Clinical Psychology Review*, 31/3 (April 2011), 449–64; C L Guglietti, Z L Daskalakis, N Radhu, P B Fitzgerald, and P Ritvo, 'Meditation-Related Increases in GABA Modulated Cortical Inhibition', *Brain Stimulation*, 6/3 (May 2013), 397–402 <[https://www.brainstimjrn.com/article/S1935-861X\(12\)00153-2/fulltext](https://www.brainstimjrn.com/article/S1935-861X(12)00153-2/fulltext)> accessed 05 December 2018; and J S K Reddy, S Roy, 'Consciousness as an Inhibited Manifestation and Quantum Physics', *Integrative Psychological and Behavioral Science*, 52/4 (December 2018), 694–701 <<https://link.springer.com/article/10.1007%2Fs12124-018-9442-x>> accessed 05 December 2018.