

# A Comparative Exploration of Human Consciousness: Yogic Insights and Scientific Perspectives

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## ABSTRACT

This paper explores human consciousness through a comparative analysis of Yogic philosophy and contemporary scientific models, particularly from neuroscience and psychology. Yogic traditions, as articulated in Patanjali's Yoga Sutras and Vedantic thought, conceptualize consciousness as fundamental, transcendent and stratified across multiple experiential layers. In contrast, modern science interprets consciousness primarily as a byproduct of neural processes and cognitive mechanisms. This study examines the ontological and epistemological foundations of both frameworks, identifies key intersections and disparities and proposes an integrative dialogue that honors both the subjective depth of introspective traditions and the empirical objectivity of scientific inquiry.

**Keywords:** Consciousness, Yogic Philosophy, Neuroscience, Vedanta, Psychology, Comparative Study, Meditation, Turiya, Vrittis

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## INTRODUCTION

Human consciousness has always fascinated all of us as one of the most mysterious and essential aspects of our existence. What is Consciousness?

It is the foundation of all our experiences—how we think, feel, perceive and relate to the world around us. Despite being so central to life, consciousness still raises profound questions about who we truly are and what it means to be aware.

**In yogic philosophy**, consciousness is not just a mental function or brain activity—it is considered the very core of our being. In the Indian philosophy, consciousness (Chaitanya) is not a byproduct of mental or neural activity but the eternal, all-pervading reality. The concept is deeply rooted in the Upanishads, where Atman (the inner self) is described as identical to Brahman, the universal consciousness (**Chandogya Upanishad 6.8.7**).

**The Bhagavad Gita (2.20)** defines consciousness as eternal and independent of the physical body, which contrasts with modern scientific views that link consciousness to brain activity.

As Swami Vivekananda (2015) expressed- "The infinite library of the universe is in our own mind," highlighting the yogic belief that all knowledge and consciousness lie within, waiting to be uncovered through inner exploration.

The concept of Antahkaran Chatushtya may also consider here-

Manas (sensory mind) - processes information from the senses and makes preliminary judgments.

Buddhi (intellect) - responsible for reasoning and discrimination (Viveka).

Ahamkara (ego) - gives rise to the sense of "I" or personal identity.

Chitta (memory/consciousness field) - stores impressions (samskaras) and latent tendencies (vasanas).

These are outlined in Patanjali's Yoga Sutras, particularly in Sutra 1.2: "Yogas chitta vritti nirodhah" - Yoga is the cessation of the - fluctuations of the mind-stuff (Chitta).

Furthermore, Yogic texts also classify consciousness into four states (avasthāchaturtha), most clearly described in the

### **Mandukya Upanishad:**

1. Jagrit, awakened state, where the mind is outwardly conscious.
2. Swapna, dream state, where the mind is turned inward and interacts with mental impressions.
3. Sushupti deep, sleep state, where the mind is inactive but consciousness remains in a latent form.
4. Turiya "the fourth" state, a transcendental state beyond waking, dreaming and deep sleep. It is pure awareness, untouched by thought or sensory experience (Mandukya Upanishad, Verse 7). It reveals consciousness as the unchanging witness behind all states.

Swami Dayananda Saraswati (2005) reinforces this view by stating, "The Self-existent Brahman is the cause of the origin, preservation and dissolution of the universe. He is the ultimate reality, beyond all dualities," resonating the Upanishadic vision of a non-dual, ever-present consciousness.

Through yogic disciplines such as dhyana (meditation) and samadhi (absorption), practitioners can access deeper layers of consciousness and eventually experience Turiya, the ultimate state of self-realization.

On the other hand, modern science treats consciousness as a phenomenon emerging from complex brain processes. Neuroscience focuses on identifying the Neural Correlates of Consciousness (NCC)-specific brain regions and networks, such as the prefrontal cortex, posterior cortex and thalamocortical circuits that correlate with subjective awareness (Crick & Koch, 1990).

Despite advancements in brain imaging (e.g., fMRI, EEG), scientists have yet to fully explain the subjective, qualitative nature of experience-what philosopher David Chalmers (1995) calls the "hard problem of consciousness."

From a psychological angle, Sigmund Freud proposed a layered model of the mind:

**Conscious mind** - active awareness.

**Subconscious** - memories and information not currently in awareness but accessible.

**Unconscious** - deep instincts, repressed memories and drives influencing behavior.

Modern cognitive psychology explores consciousness through attention models, working memory and altered states. Psychologist William James, a pioneer in consciousness studies, described consciousness as a "stream"-continuous, ever-changing and selective (James, Principles of Psychology, 1890).

While science excels at describing how consciousness may function on a neural and behavioral level, it generally does not address the spiritual or metaphysical aspects central to yogic thought. Modern science tends to explore consciousness from a biological or cognitive perspective. It looks at how the brain creates awareness and studies the mechanisms behind thought, perception and self-identity.

This paper aims to explore and compare these two rich perspectives—ancient yogic wisdom and contemporary scientific understanding. By doing so, I hope to gain a more holistic view of consciousness and explore how both approaches can complement each other in deepening our awareness of human nature.

### **Research Questions**

How does Yogic philosophy conceptualize consciousness and what are its key components or states?

What models and definitions of consciousness are proposed in neuroscience, biology and psychology (including Freudian and cognitive psychology)?

In what ways do these traditions converge or diverge in their understanding of the self and mental processes?

Can the combination of these perspectives help us gain a deeper understanding and significance of human consciousness?

### **Hypothesis:**

There is a significant relationship between Yogic models of consciousness and the layered understandings presented in modern psychology and neuroscience. Integration of these paradigms may offer a more comprehensive understanding of human consciousness.

### OBJECTIVES OF THE STUDY

1. To explore and compare the concept of human consciousness as presented in Yogic philosophy and modern science.
2. To analyze the similarities and differences in how consciousness is classified and approached across these different streams.
3. To understand the implications of Yogic and scientific models of consciousness for healthy mind, fit body and spiritual elevation.
4. To identify possible intersections between ancient introspective knowledge systems and modern practical research.
5. To encourage a holistic dialogue between ancient true wisdom and modern neuroscience & western psychology.

### SIGNIFICANCE OF THE STUDY

1. It fills the gap between ancient philosophical wisdom and contemporary scientific inquiry.
2. It encourages interdisciplinary dialogue between Yoga, neuroscience and psychology.
3. It can be helpful for applications in mental health, meditative therapies, self-awareness training and education.
4. It suggests a more holistic approach of consciousness that values both subjective experience and objective data.
5. It contributes to the growing field of contemplative science, which investigates the intersection of inner experience and outer observation.

#### Scope:

1. The research is interdisciplinary, drawing from Yoga philosophy, neuroscience, modern and cognitive psychology.
2. It gives clarity about human consciousness from philosophical, psychological and scientific perspectives.
3. The findings are applicable in academic, therapeutic and meditative & behavioral contexts.

Comparative Analysis of Consciousness: Yogic Philosophy vs. Modern Science

### ONTOLOGICAL FOUNDATIONS

#### Yogic View:

- Consciousness (Chaitanya) is fundamental, eternal and independent of the body-mind.
- Described in Mandukya Upanishad through four states:
- Jagrata (Waking),
- Swapna (Dream),
- Sushupti (Deep sleep),
- Turiya (Transcendental awareness).
- Consciousness is the substratum of both material and spiritual realities.

#### Scientific View:

- Consciousness is seen as an emergent property of neural activity.
- Rooted in brain structures such as the thalamus, cerebral cortex and neural networks.
- Defined and explored through measurable outputs (e.g., brain waves, cognitive functions).

### CONCEPT OF SELF

#### Yogic View:

- The Self (Atman) is unchanging, pure awareness beyond mind and body.
- Liberation (moksha) comes from realizing the Self's unity with Brahma.
- Yoga Sutras emphasize "Chitta Vritti Nirodha" cessation of mental fluctuations to reach true Self.

#### Scientific View:

- The self is a construct built from memory, identity and cognitive functions.
- Studied in psychology and neuroscience as part of self-awareness and social cognition (Gallagher, 2000).

## CLASSIFICATION OF CONSCIOUS STATES

### Yogic View:

Four states outlined in Mandukya Upanishad-Jagrata, Swapna, Sushupti and Turiya.

Consciousness includes waking and transcendental dimensions beyond ego and thought.

### Freudian Psychology:

Consciousness divided into Conscious, Sub-conscious and Unconscious levels (Freud, 1915).

- Emphasizes repressed desires, dreams and unresolved conflicts residing in the unconscious mind.
- Modern psychology extends these ideas into therapeutic models and personality theory.

### Neuroscience View:

- Focuses on measurable states (e.g., REM, deep sleep) and neural correlates of awareness.
- Uses empirical methods like EEG and fMRI for classification.

## METHODOLOGIES OF INQUIRY

### Yogic Approach:

Introspective and experiential: meditation, pranayama, pratyahara and samadhi.

Focused on subjective experience and self-realization.

### Scientific Approach:

Objective and experimental: neuroimaging, cognitive testing, behavioral analysis.  
Emphasis on third-person validation and replication.

## PURPOSE AND APPLICATIONS

### Yogic Purpose:

Attain liberation (moksha) and transcend suffering through spiritual knowledge.

Consciousness study is spiritual and existential.

### Scientific Purpose:

- Understand cognition, behavior, mental health and develop technologies (e.g., AI).
- Consciousness study is often functional and diagnostic.

### Points of Convergence

Growing interdisciplinary interest in meditative states and their physiological effects.

Fields like contemplative neuroscience explore how Yogic practices influence brain function (Wallace, 2007).

Need for a holistic model that combines subjective insight with empirical validation.

## METHODOLOGY

This research is qualitative and comparative in nature, grounded in textual analysis and philosophical reflection.  
Sources

**Textual Study:** Primary Yogic texts such as the Mandukya Upanishad, Yoga Sutras of Patanjali and commentaries by scholars like Swami Vivekananda, Shri Aurobindo and Swami Dayanand Saraswati were analyzed to extract key concepts related to consciousness. Yogic practices, as described in Bhagavad Gita (6.5), suggest self-realization through meditation, mirroring modern neuroscientific approaches to understanding consciousness through brainwave studies.

**Theoretical Framework:** Modern scientific literature, including works from neuroscience (e.g., Koch, Dehaene), psychoanalysis (Freud) and cognitive psychology (e.g., Gallagher), was reviewed to understand how consciousness is currently studied and interpreted in academic settings.

#### **Data Collection and Analysis:**

Thematic coding identified patterns across the traditions i.e. A comparative reading highlighted shared and contrasting themes across the disciplines.

**Comparative Analysis:** The study compares ontological foundations, models of the self, states of consciousness and practical implications across traditions.

**Interpretative Approach:** A hermeneutic and phenomenological lens is used to interpret subjective experiences from Yogic texts and align them with empirical frameworks where possible.

No fieldwork or experiments were conducted but the research is deeply grounded in academic sources, cross-disciplinary scholarship and philosophical inquiry.

## **RESULTS AND DISCUSSION**

#### **Understanding Consciousness in Layers and States: -**

Both yogic philosophy and modern science agree on the multi-dimensional nature of consciousness, exploring its various states, from lower Jagriti state to higher level of transcendence i.e. Turiya Avastha.

#### **Understanding from Different Perspectives: -**

Yoga offers a deeply personal way to explore our inner world, while modern science provides tools to study it from the outside. Together, they help us better understand the complex nature of consciousness.

#### **Consciousness as a Growing Experience: -**

Both traditions suggest that consciousness isn't something static. It may be developed and expanded with regular practice, like- through meditation, reflection, or scientific inquiry (leading to inner & real conversion or transformation).

#### **Inclusive Perspectives: -**

When we bring together insights from yoga and scientific research, we get a more complete view of the human mind. This combination connects what we feel within to what we can observe and measure (abstract to grossly).

The Bhagavad Gita (6.20) यत्रोपरमतेचित्तं निरुद्धं योगसेवया | यत्र चैवात्मना त्मानं पश्यन्नात्मनि तुष्यति || 20||  
yatoparamate chittaṁ niruddhaṁ yoga-sevayā yatra chaivātmanā tmanāṁ paśhyann ātmani tuṣhyati.

When the mind, restrained from material activities, becomes still by the practice of Yog, then the yogi is able to behold the soul through the purified mind and he rejoices in the inner joy. In addition, modern studies show that meditation affects brain patterns, enhances calmness and inner clarity.

## **CONCLUSION**

This study looks at how Yogic philosophy and modern science understand consciousness, showing both- differences and common ground. In Yoga, consciousness is seen as the very core of existence something that's everywhere and can be experienced through deep self-discipline and inner focus. The Bhagavad Gita (4.18) talks about the wisdom in seeing stillness within action and action within stillness, which strangely enough lines up with some modern ideas in quantum science that suggest the mind and the world are closely connected. Meanwhile, science-especially neuroscience and biology explain consciousness as something created by the brain and studied through physical signs & symptoms. Psychology, especially Freud's psychoanalysis theory, adds another view by saying much of our thoughts and feelings come from a hidden part of the mind-the unconscious that works behind the scenes without our awareness.

The idea of the unconscious mind in psychology connects well with what Yogic philosophy calls samskaras (past impressions) and vrittis (mental fluctuations). These inner patterns quietly shape how we think, feel and react, often without our knowledge. Though Yoga and modern psychology use different approaches, both suggests that consciousness isn't limited to what we're aware of on the surface. Freud's theory says that what we know is just a tip of an ice berg and a big part is still out of our coverage area or knowledge. Real change comes from doing the inner work through yoga sadhana, meditation, reflection or therapy.

Today, there's growing interest in combining personal inner experiences with scientific research to understand consciousness more fully. By bringing together the deep insights of Yogic thought with modern psychology and science- including Freud's contributions- we open the door to a more complete understanding of ourselves. This approach not only enriches theory but also helps in real-life areas like mental health, emotional balance and spiritual well-being.

This comparison shows that while Yogic and scientific approaches come from different ways of understanding the world, they both offer valuable understandings of consciousness. By combining the personal, experiential knowledge of Yogic practices with the detailed, evidence-based methods of science, we could gain a deeper and more complete view of human consciousness. Future studies should focus on blending these perspectives, recognizing the importance of both self-realization and scientific analysis.

### REFERENCES

- [1]. Banerjee, S., Arora, M., & Srinivasan, N. (2021). Neuroscience of the yogic theory of consciousness. *Frontiers in Psychology*, 12, 742092. <https://doi.org/10.3389/fpsyg.2021.742092>
- [2]. Vahia, N. S., & Vahia, V. N. (2024). Evolution from four mental states to the highest state of consciousness: Ancient insights and modern relevance. *Progress in Brain Research*, 277, 105–122. <https://doi.org/10.1016/bs.pbr.2022.10.002>
- [3]. Awaken. (2024, February). 5 ways modern science is embracing ancient Indian wisdom. Awaken. <https://awaken.com/2024/02/5-ways-modern-science-is-embracing-ancient-indian-wisdom/>
- [4]. Conesa-Bacardit, X., & Busemeyer, J. R. (2024). Quantum models of consciousness from a quantum information science perspective. *arXiv preprint*. <https://arxiv.org/abs/2501.03241>
- [5]. Sorrenti, D., & Puigbò, J. (2024). Probing for consciousness in machines. *arXiv preprint*. <https://arxiv.org/abs/2411.16262>
- [6]. Dehaene, S. (2014). *Consciousness and the brain: Deciphering how the brain codes our thoughts*. Viking.
- [7]. Freud, S. (1915). The unconscious. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 14, pp. 159-204). Hogarth Press.
- [8]. Koch, C. (2012). *Consciousness: Confessions of a romantic reductionist*. MIT Press.
- [9]. Patanjali. (2001). *The Yoga Sutras of Patanjali* (S. Satchidananda, Trans.). Integral Yoga Publications.
- [10]. Swami Gambhirananda. (1958). *Eight Upanishads: With the commentary of Sankaracharya* (Vol. 1). Advaita Ashrama.
- [11]. Swami Vivekananda. (2006). *Raja Yoga*. Ramakrishna-Vivekananda Center.
- [12]. Thompson, E. (2015). *Waking, dreaming, being: Self and consciousness in neuroscience, meditation, and philosophy*. Columbia University Press.
- [13]. Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind: Cognitive science and human experience*. MIT Press.
- [14]. Wallace, B. A. (2007). *Contemplative science: Where Buddhism and neuroscience converge*. Columbia University Press.
- [15]. Josipovic, Z. (2014). Neural correlates of nondual awareness in meditation. *Annals of the New York Academy of Sciences*, 1307(1), 9-18. <https://doi.org/10.1111/nyas.12261>
- [16]. Baars, B. J. (1997). In the theater of consciousness: Global workspace theory, a rigorous scientific theory of consciousness. *Journal of Consciousness Studies*, 4(4), 292-309.
- [17]. Goleman, D., & Davidson, R. J. (2017). *Altered traits: Science reveals how meditation changes your mind, brain, and body*. Avery.