UNDERSTANDING PHILOSOPHY OF MIND IN INDIAN KNOWLEDGE SYSTEMS

CHINMOY SARKAR

Introduction:

The debate between Indian Knowledge Systems and cognitive research focuses on understanding the nature and structure of human consciousness. Cognitive science started in the late 20th century, combining psychology, neuroscience, linguistics, and artificial intelligence. Its main topics, attention, memory, selfhood, perception, and cognition, are similar to ideas found in Indian knowledge traditions. Indian philosophy includes various theories about the mind, such as Yoga Sūtra, Advaita Vedānta, Buddhist, and Āyurvedic models; all considered "knowledge sciences."

B. K. Matilal describes Indian epistemology as "a sophisticated analytical tradition of reasoning about cognition," while Georg Feuerstein calls Yoga "a premodern science of mind and consciousness." This indicates that Indian traditions should be viewed as cognitive sciences rather than merely spiritual systems. Indian knowledge systems feature a layered approach that includes observations, introspection, and practices. Yoga studies how thinking works and how it can be improved or cleared. Patañjali defined Yoga as "the cessation of the fluctuations of consciousness," which highlights the nature of mental activity and its flexibility. Modern cognitive science supports these ideas with research on attention management, self-awareness, and brain plasticity. Francisco Varela, who developed neurophenomenology, said meditative traditions offer "systematic techniques for refining first-person observation," a method that has deep roots in Indian mind sciences.

Meditation is not just a spiritual practice; it is also a structured way to think and reflect, as seen in Yogic, Buddhist, and Vedāntic traditions. Jon Kabat-Zinn, who brings mindfulness into therapy, says meditation allows us to examine our own consciousness. Indian traditions provide detailed classifications of different mental states, and how we focus our attention and reflect on our experiences. The *Abhidharmakośa* and *Upaniṣads* discuss awareness in ways that connect with modern ideas about the mind, self, and how our consciousness relates to brain processes. The *Bṛhadāraṇyaka Upaniṣad* states that the true Self is the observer of all experiences.

This matches contemporary views, like those of Thomas Metzinger, who argues that consciousness involves a model of self-representation. Indian thought suggests that we can train our minds. Yoga and Buddhist meditation recognize that our minds often get distracted and conditioned by habits, but focused practice can change these patterns. Evan Thompson, referencing both philosophy and Buddhism, says the mind is not fixed; it is a process that adapts through training. This idea connects well with current findings in neuroplasticity and contemplative neuroscience, showing an overlap between ancient introspective studies and modern research.

Indian philosophies challenge current cognitive science in interesting ways. The *Taittirīya Upaniṣad's* five-layer model, the Yogic framework of mind, intellect, and ego, and the Sāṃkhyan distinction between consciousness and matter provide rich and thoughtful ways to understand the mind. These models highlight different layers of thinking, the distinction between awareness and its content, and altered states of consciousness. Mircea Eliade points out that Indian views on consciousness regard different states as integral forms of mind, offering a broader perspective than what modern psychology often considers. To appreciate Indian knowledge as part of cognitive science, we must consider its innovative methods: looking inward to observe, practical experience, meditative testing, and ethical personal growth. These methods anticipate ideas in embodied cognition, enactive mind theory, and neurophenomenology. Indian traditions combine knowledge on how we know things, the psychology of our minds, the nature of reality, and ethics. This creates a practical and transformative approach to studying the mind.

In this paper an attempt has been made to argue that Indian knowledge systems on philosophy of mind contribute significantly to global cognitive research, not just to religion or philosophy. This paper aims to show that Yoga, meditation, and traditional Indian models of the mind enrich our understanding of consciousness, broaden cognitive theory beyond reduced views, and offer useful methods that complement and challenge today‘s scientific investigations. Therefore, the discussion between Indian knowledge on science and modern cognitive science can lead to a more inclusive and diverse understanding of the mind. Let us focus on some of the fundamental notions of modern cognitive science in the following manner.

Meta-awareness is the ability to recognize and monitor your own thoughts and feelings. It involves not only knowing your thoughts, emotions, or perceptions but also being aware that you are having these experiences. In cognitive science, it connects to metacognition and helps with functions like noticing when your mind wanders and managing your attention. In meditation research, meta-awareness is seen as part of mindfulness practice, where individuals notice when their thoughts stray and bring their focus back to the present moment.

Neurophenomenology combines neuroscience with personal reports of experiences. Founded by Francisco Varela, it aims to bridge the gap between subjective experiences and objective brain measurements by linking personal insights (like those from meditation practitioners) with neural data such as EEG or fMRI. Its goal is to create a solid science of consciousness that values both personal experiences and biological processes without reducing one to the other.

Enactive cognition was introduced by Francisco Varela, Evan Thompson, and Eleanor Rosch in their book "*The Embodied Mind*." This theory states that thinking happens through the active interaction between a person and their environment, not just through internal symbols. It suggests that the mind is not a separate information-processing machine but an engaged process influenced by our surroundings. This theory argues that perception is not just about passively receiving information; instead, we actively create meaning through our actions and interactions. Varela further developed neurophenomenology, linking firsthand experiences (like those from meditation) with scientific methods. Enactive cognition challenges traditional views of the mind and agrees with ideas from Indian and Buddhist perspectives that emphasize the relational, embodied nature of consciousness.

Non-dual awareness is a state of consciousness where the separation between the one experiencing and what is being experienced disappears, leading to a unified awareness. This concept is central to Advaita Vedānta, Buddhism, and Kashmir Śaivism. It is seen as clear and free from self-identity. Modern neuroscience connects it to reduced activity in the default mode network and changes in brain connectivity. Non-dual awareness challenges dualistic views of thinking and raises significant questions about the nature of consciousness. In Advaita Philosophy, it refers to the realization that the self (*Ātman*) is the same as the ultimate reality

(*Brahman*). Śaṅkara describes this awareness as self-luminous and always present. Non-dual awareness is described as an inseparable emptiness and brightness. Kashmir Śaivism views non-duality as the understanding that all phenomena are expressions of universal consciousness (Śiva), which is also called dynamic awareness.

IndianModels on MindasCognitiveFrameworks:

Classical Indian philosophical traditions have some of the most detailed and methodical ideas about the mind in the history of human thought. These ideas, developed long before neuroscience and psychology, cover many topics related to how we think, focus, perceive, and understand ourselves and emotions. Indian thinkers used practices like Yoga to explore and change how the brain functions. They approached the mind scientifically, studying perception, reasoning, and awareness.

One of the most specific cognitive systems is the Sāṃkhya-Yoga model. It outlines a three-part structure of the mind: *mānas* (the sensory mind), *ahaṃkāra* (the ego), and *buddhi* (the intellect). These parts work together cohesively. *Mānas* handles attention and sensory information, *ahaṃkāra* manages self-reference, and *buddhi* supports judgment and insight. Edwin F. Bryant describes Patañjali‘s theories as a ―unctional psychology” that maps layers of thought and how they can be disrupted. The *Yoga Sūtra* describes five types of mental activity (*vṛttis*): correct perception, error, imagination, sleep, and memory. These categories align with concepts in cognitive science about perception, misrepresentation, constructive thinking, unconscious processes, and memory.Georg Feuerstein describes the Yogic framework as an ―early phenomenological science of consciousness” because it examines mental events through careful introspection. Yoga sees the mind as a flexible, multi-layered system, similar to how modern theories see embodied and active cognition.

Another important model is the Buddhist Abhidharma, which breaks consciousness down into momentary events and lists various mental factors. This detailed view inspires modern ideas about cognitive modularity and dynamic systems. In the *Abhidharmakośa*, Vasubandhu describes cognition as a series of connected mental moments involving attention, feelings, perception, will, and awareness. This

concept aligns with current understanding of the brain‘s changing patterns and how we experience consciousness. Evan Thompson, citing Buddhist texts, explains that the *Abhidharma* views consciousness as a series of fleeting processes rather than a fixed inner entity. This perspective supports process-based models of cognition over traditional views that rely on fixed representations.

Advaita Vedānta presents a layered view of the self and mind, distinguishing between consciousness (*cit*) and the mental functions (*antaḥkaraṇa)*. The *antaḥkaraṇa* includes manas, *buddhi*, *ahaṃkāra,* and *citta* (the storehouse of memories). Unlike Sāṃkhya, Advaita views these as internal functions rather than separate substances. It suggests that consciousness is the observer of mental events, providing a basis for discussions of self-awareness and the nature of consciousness. The *Bṛhadāraṇyaka Upaniṣad* describes the observing self as ―the seer who is not seen, the hearer who is not heard.” This highlights a pure consciousness that cannot be simplified to mental images. Eliot Deutsch notes that this perspective challenges traditional ideas about representation and inherent awareness.

Ayurveda presents a mind-body model in which the mind (*manas*) is connected to the body, emotions, and the environment. This holistic approach emphasizes how our physical state and feelings influence thinking. The *Caraka Saṃhitā* describes the mind as functioning through cognition (*j āna*), will (*icchā*), and effort (*prayatna)*, which includes perception, motivation, and action. Ayurvedic psychology integrates closely with medical and physiological ideas, offering a cohesive biopsychological model. This connection anticipates modern concepts in emotional neuroscience and embodied cognition, showing that thinking processes are linked to physical sensations. Both Indian traditions discuss the mind‘s ability to change through training. They often present it as a flexible mechanism that can be developed with effort. Yoga seeks to enhance focus *(dhāraṇā*), continuous engagement (*dhyāna*), and mental stability, awareness (*samādhi*). Buddhist practices promote awareness, insight, and deconditioning of habitual patterns (*smṛti, vipassanā, saṃskāras*). Advaita emphasizes discernment (*viveka*), disidentification, and contemplation.Contemplative neuroscience and cognitive training research increasingly recognize that contemplative traditions ―offer disciplined methods for transforming the structures of experience” (Varela 336). Thus, Indian mind models

precisely describe mental processes and offer ways to modify them.

Indian ways of thinking combine knowledge, beliefs, ethics, and psychology. Accurate thinking (*pramā*) is connected to moral growth, managing emotions, and clear awareness in different traditions. This is different from modern cognitive science, which divides knowledge into separate areas. Indian philosophies view thinking as a process of existence rather than just computation; to know well means to be well. Jonardon Ganeri describes classical Indian thought as a ―first-person realist" cognitive science. It blends experiences, rational thinking, and actions that lead to change.

This perspective aligns with modern models that bring together experience, psychology, and neuroscience. Indian philosophy can enhance cognitive research by viewing the mind as layered, dynamic, and capable of growth. It goes beyond just thinking as computation. It includes self-awareness, emotional balance, ethical thinking, and the ability to change how we think. Therefore, these Indian frameworks are not outdated theories; they are sophisticated, philosophical approaches to understanding cognition. Indian models contribute to a broader and more complex understanding of human consciousness by combining solid evidence with personal experience.

YogaasExperimentalPsychology:

To grasp Yoga's methodological and philosophical dedication to understanding the mind, one must recognize it as a form of experimental psychology. Classical Yoga, as outlined in Patañjali's Yoga Sūtra, presents a scientific approach to cognition rather than merely a religious or mystical practice. It employs empirical introspection, behavioral regulation, and phenomenological analysis as a framework to study mental processes, consciousness changes, and cognitive clarity. Georg Feuerstein asserts that Yoga is ―above all, an experiential discipline concerned with understanding and transforming consciousness" (Feuerstein, Yoga Tradition 195). By using sophisticated first-person approaches rather than lab equipment, Yoga shares similar goals with modern experimental psychology.

Yoga's experimental approach focuses on identifying mental fluctuations (citta-v tti). Patañjali describes Yoga in the Yoga Sūtra (1.2) as ―the cessation of the

fluctuations of consciousness," not as a philosophical claim but as an operational definition. Valid cognition, error, imagination, sleep, and memory (1.5–1.11) are mental events currently studied in psychology through behavioral and neuroscientific evidence. The first-person phenomenology of Yoga allows practitioners to observe these mental categories in real time by controlling attention, posture, breath, and ethics. In his commentary, Edwin F. Bryant describes the Yoga Sūtra as a psychology of interior states with exceptional analytic clarity (Bryant 20). This precision results from a long history of experiential verification, wherein meditators examine their assumptions about how the mind functions.

Yoga experiments with attention, emotion, perception, and cognition. The eightfold path (*aṣṭāṅga-yoga*) sequentially helps improve cognitive problems. The yamas and niyamas of ethics regulate emotional and behavioral tendencies, facilitating introspection. Posture (āsana) and breath regulation (prāṇāyāma) manage the autonomic nervous system, impacting arousal, attention, and emotional states. Concentration, meditation, and absorption involve progressively altering attentional bandwidth, perceptual selectivity, and self-referential processing. Desikachar refers to this transition as ―a practical psychology of transformation, founded on step-by-step observation and refinement of mental behavior" (89). This layered approach parallels cognitive psychology paradigms that measure attentional control, cognitive reappraisal, and altered states of consciousness.

Recent scientific research links Yoga's experimental psychology to neurophenomenology, embodied cognition, and contemplative science. Francisco Varela famously stated that meditation provides ―systematic training for generating enhanced experiential data" (Varela 335). Sustained, non-reactive mental event monitoring is how Yoga achieves this. Modern studies on attention, brain oscillations, interoception, and cognitive plasticity support the Yogic belief that mental processes can be actively altered. Controlled breathing and focused attention influence the prefrontal cortex, limbic system regulation, and autonomic balance, aligning with Yogic traditions that describe prāṇāyāma as a pathway to maintaining mental steadiness and clarity. Thus, Yoga predated experimental psychology's interest in manipulating cognitive-emotional circuits through introspective and behavioural technologies rather than conventional instruments.

Yoga‘s process-oriented cognition approach treats attention as a skill, not a fixed aptitude. Meditative absorption (samādhi) is a cognitive shift that stabilizes attentional fluctuations and reduces agency, rather than offering a magical escape. According to the *Yoga Sūtra* (1.17), absorption phases include savicāra, nirvicāra, ānanda, and asmitā samādhi, which represent increasingly refined states of awareness. Mircea Eliade describes these as ―rigorous experiments in the alteration of consciousness" (92). These investigations provide phenomenological data on self-perception, cognitive minimalism, and boundaries of subjectivity, topics current psychologists study in relation to flow states, minimal self-experience, and non-dual consciousness.

Another essential aspect of Yoga as experimental psychology is error reduction. According to Patañjali, the five *kleśas*, ignorance, egoity, attachment, aversion, and fear, are cognitive distortions that hinder perception and judgment (2.3). Yoga employs meditative introspection and ethical discipline to isolate core cognitive processes and eliminate confounding influences, similar to experimental control in modern science. B. K. Matilal‘s examination of Indian epistemology illustrates that genuine knowledge is ―cognition free of distortion" (Matilal 45). Yoga helps reduce affective bias, impulsive reactivity, and habitual cognitive processes, which are also targets of current behavioral and cognitive therapies.

Yoga emphasizes the body, which is often neglected in typical Western thinking. It highlights the integration of mind and body, reflecting a somatic, affective, and ecological perspective on cognition. Practices such as breath regulation, postural discipline, and sensory withdrawal (*pratyāhāra*) influence interoceptive and proprioceptive processes, demonstrating an embodied approach to psychological research. According to Evan Thompson, both yoga and cognitive research show that ―mindfulness and attention are not disembodied events but embodied skills" (Thompson 134).

Contemporary models of embodied cognition agree that sensorimotor systems and bodily states significantly affect cognitive processes. The philosophical psychology of yoga emphasizes meta-awareness. The Yoga Sūtra suggests that consciousness can illuminate its own states, similar to modern concepts of consciousness and meta-cognition. Meditation allows the mind to observe itself

without identification, which experimental psychologists refer to as metacognitive monitoring. The distinction between mental fluctuations (v ttis) and witnessing consciousness (draṣṭ) provides a framework for studying subjective awareness, self-perception, and the phenomenology of attention. Indian psychology holds that consciousness is ―self-luminous and capable of revealing the operations of the mind" (Deutsch 12).

MeditationasCognitive Experimentation:

Indian knowledge traditions utilize meditation to explore, regulate, and transform cognitive processes. While modern interpretations of meditation often limit it to relaxation or stress reduction, ancient Indian frameworks regard it as a rigorous form of cognitive experimentation that investigates attention, perception, emotion, selfhood, and the dynamics of consciousness. Meditation acts as a mental laboratory where practitioners conduct controlled experiments through introspective observation, purposeful modulation of mental states, and sustained engagement with cognitive tasks. Francisco Varela, the founder of neurophenomenology, asserts that contemplative disciplines provide ―xquisitely refined methods for generating disciplined first-person data" (Varela 334).

Indian meditation traditions serve as rich experimental systems that preemptively address the methodological concerns of cognitive science. Meditation comprises various procedures designed to test cognitive theories within Yogic, Buddhist, and Advaitic traditions. The *Yoga Sūtra* outlines a systematic approach to attentional training that includes *dhāraṇā* (directed attention), *dhyāna* (sustained meditative flow), and *samādhi* (non-dual absorption), aimed at stabilizing and refining consciousness. Cognitive functioning is observed differently at each of these stages. According to Bryant (Bryant 259), Patañjali‘s detailed explanations of these stages offer a comprehensive analysis of attention phenomenology. Thus, meditation is an experiment in attentional modulation, highlighting how the mind processes information, generates meaning, and constructs perceptions of self and the world.

Buddhism, particularly through the *Abhidharma* and early Buddhist discourses, employs meditation to examine the mind's moment-to-moment activities. The Buddha encourages practitioners in *The Middle Length Discourses* to observe

breath, body, feelings, cognition, and mental objects as dynamic processes (Ñāṇamoli and Bodhi 146-50). This phenomenological approach allows for experimental knowledge of cognitive processes: attention is trained to notice progressively subtle mental occurrences. Meditation promotes "enhanced metacognitive awareness," enabling practitioners to observe cognitive moments as they arise, dissolve, and change (Thompson 81). This detailed examination of instantaneous cognition aligns with current research on perceptual frames, attentional microstates, and brain oscillations.

Meditation as cognitive experimentation depends on controlled internal conditions. Sensory withdrawal, breath management, and ethical discipline, along with intention-setting, reduce cognitive noise during meditation. These controls create a setting similar to a laboratory within the subjective realm, allowing practitioners to isolate elements of attention, emotion, and intention. Drawing from Tibetan Buddhist and Yogic traditions, B. Alan Wallace describes meditation as "a highly disciplined form of attentional training that yields replicable introspective reports" (Wallace 10). This practice demonstrates that enhanced introspection can lead to systematic and intersubjectively consistent observations, challenging the notion that first-person accounts are inherently unreliable or subjective.

Meditation can test how our minds work and help us explore different levels of awareness. In yoga, meditation leads to states like *nirvicāra-samādhi*, while Buddhism uses *jhāna*, and Advaita Vedānta employs *nirvikalpa-samādhi* to create focused breaks from normal thought patterns. These stable mental states allow us to analyze consciousness without the usual distractions. Mircea Eliade describes these Yogic and Buddhist experiences as "consciousness stripped of conditioning factors." These altered experiences support our understanding of awareness, the self, and the nature of consciousness. Modern cognitive science investigates altered states, minimal self-experience and non-dual awareness, often confirming insights from Indian meditation.

Meditation aims to reduce errors and improve clarity in our thinking. Both Yogic and Buddhist traditions identify distortions, called *kleśas* in Yoga and *kleśas* in Buddhism, that affect how we see things and can cause suffering. To better understand how our minds work without these biases, practitioners focus on

disciplined meditation to minimize these distortions. Bimal Krishna Matilal states that Indian traditions use meditation to correct cognitive processes, allowing for clearer knowledge. Today‘s psychological methods, like mindfulness therapies and attention training, help lessen cognitive biases, emotional reactions, and harmful habits.

Meditation also examines how we direct our thoughts and focus on objects. Buddhist texts explore how attention selects and assesses what we focus on. According to the Abhidharmakośa, consciousness comes from mental components that shape our awareness. Meditation helps us witness how we focus on our thoughts in real-time, providing insights into our perception and understanding. Jonardon Ganeri, who studies Indian attention models, notes that meditation is ~~a~~ first-person method for studying attention as a structured mental action.” This internal perspective complements external scientific methods, creating a combined approach that uses both personal and observational data to clarify how our minds work.

Meditation also questions theories of selfhood. In Advaita Vedānta, meditation helps differentiate between observing consciousness and the sense of self. Practitioners learn that selfhood can be pure, non-objective knowledge through ongoing inquiry and detached contemplation. Early Buddhism uses meditation to recognize the passing nature of cognitive events, the concept of non-self, and dependent origination. These traditions explore ideas about the self and reality through meditation. Eliot Deutsch describes Indian meditation as ~~a~~ disciplined means of arriving at knowledge of the self and consciousness through direct insight.” This approach positions meditation at the intersection of psychology, knowledge, and philosophy.

EmbodiedandEnactiveCognitioninIndianThought:

Indian philosophical traditions provide complex theories of embodied and enactive cognition that predate and conceptually predict phenomenology, embodied mind theory, and enactivism. Knowledge systems such as Sāṃkhya-Yoga, Advaita Vedānta, Buddhism, and Jainism view cognition as a dynamic, embodied, and world-engaged process, in contrast to Cartesian dualism. In this perspective, the body serves as both a vessel and a fundamental component of cognition. The well-known enactive

thesis by Varela, Thompson, and Rosch, that "the mind is not in the head" and that cognition arises through "embodied action" in a world that the organism "enacts" through its sensory capacities, strongly resonates with these traditions. Additionally, Indian philosophies integrate embodied processes with moral, meditative, and contemplative practices, suggesting that cognition cannot be separated from purposeful cultivation. According to Patañjali's *Yoga Sūtra*, classical yoga emphasizes psychophysical approaches such as *prāṇa, āsana, pratyāhāra*, and *dhāraṇā* to enhance the mind using the body. Ian Whicher refers to Patañjali's model as "embodied liberation," highlighting the integration of psychophysical processes in yogic practices rather than a separation from the body. This embodiment transforms cognition into clarity, luminosity, and self-reflexivity, supporting enactive cognition's claim that bodily practices can alter perception, attention, and consciousness.

Buddhism offers a deeper understanding of embodied and active cognition through its concepts of nāma-rūpa, skandhas, and vedanā-based perception. In the Satipaṭṭhāna Sutta, the Buddha emphasizes body mindfulness (*kāyānupassanā*) as essential for understanding the mind. Evan Thompson argues that such texts present a "phenomenology of lived body experience" that aligns with an embodied-enactive cognition model. Meditation influences the dynamic interplay between sensation, perception, intentionality, and the physical processes that shape cognition. Crucially, Buddhist philosophy rejects the notion of a transcendental self, viewing cognition as a fluid, interdependent process grounded in embodiment. Advaita Vedānta distinguishes among gross, subtle, and causal bodies, offering a unique yet compatible perspective. While Advaita holds that awareness (*Brahman/Ātman*) is non-physical, it acknowledges that the mind's empirical functioning (*antaḥkaraṇa*) is rooted in the body and its sensorimotor capacities. Eliot Deutsch notes that "the body is the locus of experience and the necessary condition for empirical consciousness," even though it does not define ultimate reality. Thus, everyday cognition is both embodied and enacted while pure consciousness transcends embodiment. This dual-level account suggests that while enaction is empirical, non-dual consciousness is meta-cognitive, which does not contradict enactivism.

Sāṃkhya philosophy connects embodied cognition to the interaction between *puruṣa* (pure consciousness) and *prakṛti* (material nature), explaining that cognitive processes arise from physiological and subtle-material components. Gerald Larson describes Sāṃkhya as offering a proto-phenomenological psychology that sees cognition as a dynamic interaction of sensory, motor, and affective components within material embodiment. Current cognitive science models of the embodied mind incorporate sensory and motor activity along with affect, reflecting similar ideas. Jain epistemology and ethics emphasize *karma*, a subtle material substance that influences perception, decision-making, and awareness, thereby shedding light on embodied cognition. John Cort observes that Jainism considers ~~–t~~he body, mind, and moral disposition as forming a continuum." Therefore, Jainism integrates cognitive, ethical, and physiological processes into a cohesive interactive system, anticipating contemporary approaches that explore cognition as both embodied and ethically grounded.

A key aspect of Indian embodied cognition is yogic intentionality, which involves training the body to change habitual mental patterns (*saṃskāra*) and attentional styles. Contemporary findings in neuroplasticity and embodied skill learning support this concept. According to the renowned Indian epistemologist B.K. Matilal, such practices are "experiments on consciousness carried out with the laboratory of one's own body-mind complex" (Matilal 42).

Enactive cognition asserts that cognition is a skill developed through embodied training and engagement with the world. Indian traditions emphasize four principles that align with, and often expand upon, contemporary enactive cognitive science: cognition is embodied in psychophysical processes; it is enacted through world-directed, intentional activities; it is cultivated through meditation, ethical discipline, and yogic practice; and it is intrinsically linked to lived experience rather than abstract representation. These findings position Indian knowledge systems as early and sophisticated frameworks for understanding embodied consciousness, transcending merely spiritual or metaphysical concepts. They reveal that Indian philosophical psychology predates many key assumptions of today's embodied and enactive cognitive science, incorporating normative and meditative features that are often absent in scientific models.

Limitations and Tensions between Traditional Indian Models and Western Scientific Approaches to Consciousness

The scientific study of consciousness has emerged as one of the most philosophically challenging and methodologically complex domains within contemporary cognitive science. The dialogue between Western neuroscience and traditional Indian contemplative systems, particularly Advaita Vedānta, Yoga, and Buddhist philosophy, has significantly increased over the past three decades. This interaction enhances the scope of consciousness study, aided by the rise of contemplative neuroscience, the integration of meditation into clinical psychology, and interdisciplinary efforts such as neurophenomenology (Varela) and enactive cognition (Thompson).

At first glance, this dialogue appears promising. Both traditions investigate consciousness, employ systematic introspection, and recognize differences in awareness and transformations of self-experience. Additionally, neuroimaging research has demonstrated measurable changes in brain structure and function among long-term meditators or practitioners, seemingly validating aspects of contemplative practice that are nurtured and celebrated by Indian traditions.

Varela, Thompson, and Rosch‘s *The Embodied Mind* (1991) makes significant efforts to integrate cognitive science with Buddhist contemplative insights through the frameworks of enactive cognition and neurophenomenology. They reject classical computationalism and emphasize embodied, relational cognition, thereby opening up significant conceptual space for dialogue between neuroscience and contemplative traditions of Buddhism, such as mindfulness practices. Their proposals that first-person reports can mutually constrain neural data remain highly influential in contemporary meditation research. However, while their work exhibits methodological optimism regarding the systematic integration of phenomenology and neurobiology, it largely brackets metaphysical commitments, which is a significant concern for Advaita Vedānta and other Indian traditions. Their work successfully reframes cognition as embodied and enacted.

Beneath these convergences lies a deep philosophical tension between the Indian model of the mind in relation to consciousness and Western approaches to consciousness study. These tensions arise from various key aspects, including

ontological commitments, epistemological standards, methodological approaches, normative aims, as well as issues pertaining to replicability and standardization.

OntologicalTension:

Many Indian traditions, such as Advaita Vedānta, hold consciousness as fundamental. They advocate that matter emerges within consciousness and view consciousness as the substratum of all reality, rather than a product of physical processes. In contrast, the Western scientific method generally assumes methodological naturalism, treating consciousness as a brain-based process or an emergent property of neural complexity. Indian philosophical systems are essentially metaphysically idealist and non-dual, while the study of consciousness in the West follows methodological materialism.

Epistemological Tension:

Indian philosophical traditions admit multiple *pramāṇas* (means of valid knowledge), including direct perception, inference, and reliable testimony. Yogic traditions further maintain that disciplined meditative practice refines first-person insights. On the other hand, modern science of consciousness prioritizes third-person, publicly verifiable data. Varela tries to bridge this gap through neurophenomenology, proposing that disciplined first-person reports could be systematically correlated with neural dynamics. Thompson similarly supports an enactive approach that integrates phenomenology and cognitive science. However, the tension between Indian and Western traditions persists because Yogic insight relies on first-person refined phenomenology, while cognitive science privileges third-person objectivity.

Methodological Tension:

First-Person vs. Third-Person Methodology

Indian traditions fully rely on trained introspection and direct experiential realization (*anubhava*). This also requires long-term disciplined practice and self-purification. In contrast, Western science gives priority to third-person measurement, replicability, and operational definitions. Tension arises in the case of certain mental states, such as *Nirvikalpa samādhi*, non-dual awareness, and *Turīya*, which are defined as ineffable and beyond conceptualization. In these cases, there is no requirement for objectifiable scientific methods, reportable experiences, behavioral measures, or neural correlates. This situation creates a methodological paradox: the

more "pure" a non-dual state is described, the less accessible it becomes to empirical capture. Neurophenomenology attempts to create a bridge, but the translation from lived experience to neural metrics remains partial.

Normative Aims: Teleological vs. Mechanical

Indian philosophical traditions emphasize transformative discipline, aimed at liberation. In contrast, Western views on consciousness are often more descriptive and focused on short-term interventions. Contemporary mindfulness research typically relies on standardized interventions such as *Mindfulness-Based Stress Reduction* (MBSR). Neuroimaging studies report structural and functional brain changes following eight-week programs, illustrating that Western methodology is experimental. Meanwhile, the yoga of Indian tradition describes a rigorous eightfold path culminating in *nirbīja samādhi*. This theory posits that liberation (*kaivalya*) is not merely a therapeutic outcome, but rather an ontological transformation.

Transitional Indian systems are soteriological, aimed at liberation (*mokṣa or nirvāṇa*). Ethical cultivation (*śīla*) and wisdom (*praj ā)* are integral to contemplative practice. In contrast, contemporary mindfulness is often framed as a therapeutic or productivity-enhancing tool. Purser (2019) critiques this "mindfulness" phenomenon, arguing that it strips practice of its ethical foundations and recontextualizes it within neoliberal frameworks. This divergence reflects a broader normative tension: Indian traditions aim for existential transformation, whereas Western science typically pursues descriptive explanation and functional optimization.

Replicability and Standardization Issues

In Indian tradition, meditation cannot be regarded as a single, uniform intervention due to differences in lineage, instructional style, cultural background, practitioner expertise, and duration of training. Additionally, two participants reporting "*samādhi"* may convey phenomenologically different states and exhibit different neural patterns. The Western study of consciousness requires experimental design, standardized protocols, and clear operational definitions, while traditional practices related to consciousness often resist such standardization.

Conclusion:

The rich heritage of Indian knowledge systems and scientific tradition illustrates that cognitive science extends well beyond the confines of laboratory experiments or purely computational models. By integrating practices such as yoga

and meditation with established Indian cognitive frameworks, this approach offers a holistic, rigorously supported understanding of consciousness. This integration not only enhances contemporary scientific inquiry but also broadens its scope. Indian philosophical traditions perceive the mind as inherently adaptable, constantly evolving, and capable of transformation. Rather than viewing consciousness solely as a byproduct of neuronal processes, Indian schools of thought regard it as a phenomenon that can be directly investigated through phenomenological methods, offering unique insights into the nature of awareness and perception.

The convergence of Indian meditative practices and modern cognitive research opens up promising avenues for interdisciplinary collaboration. Indian models emphasize crucial aspects of cognition, such as the foundational roles of attention, the significance of embodiment in experiential understanding, the necessity of ethical development in cognitive processes, and the cultivation of meta-awareness, the ability to observe one's own mental processes. In turn, cognitive science provides empirical methodologies for rigorously evaluating these time-honoured insights and a framework for their application in contemporary contexts.

By fostering a global cognitive science approach informed by Indian knowledge traditions, we can more effectively navigate the intricate complexities of human consciousness. This collaborative framework has the potential to bridge the gap between subjective experiences and objective analysis, enabling a fruitful synthesis of philosophical depth and scientific rigour. Ultimately, such an integrated perspective can deepen our understanding of the human mind and help develop tools and practices that enhance cognitive functioning and well-being.

Bibliography:

- Bryant, Edwin F. *The Yoga Sūtras of Pata jali: A New Edition, Translation, and Commentary*. North Point Press, 2009.
- Caraka. *The Caraka Saṃhitā*. Translated by P. V. Sharma, 4 vols. Chaukhambha Orientalia, 1981-94.
- Cort, John E. *Jains in the World: Religious Values and Ideology in India*. Oxford University Press, 2001.
- Deutsch, Eliot. *Advaita Vedanta: A Philosophical Reconstruction*. University of Hawaii Press, 1969.
- Deutsch, Eliot. *Essays on the Philosophy of Yoga*. University of Hawaii Press, 1980.
- Desikachar, T. K. V. *The Heart of Yoga: Developing a Personal Practice*. Inner Traditions, 1995.

- Eliade, Mircea. *Yoga: Immortality and Freedom*.Translated by Willard R. Trask. Princeton University Press, 1958.
- Feuerstein, Georg. *The Yoga Tradition: Its History, Literature, Philosophy, and Practice*. Hohm Press, 2001.
- Ganeri, Jonardon. *Attention, Not Self*. Oxford University Press, 2012.
- Kabat-Zinn, Jon. *Wherever You Go, There You Are: Mindfulness Meditation in Everyday Life*. Hyperion, 1994.
- Larson, Gerald James. *Classical Sāṃkhya: An Interpretation of Its History and Meaning*. Motilal Banarsidass, 1979.
- Matilal, Bimal Krishna. *Perception: An Essay on Classical Indian Theories of Knowledge*. Oxford University Press, 1986.
- Ñāṇamoli, Bhikkhu, and Bhikkhu Bodhi, translators. *The Middle Length Discourses of the Buddha: A Translation of the Majjhima Nikāya.* 2nd ed. Wisdom Publications, 2001.
- Patañjali. The Yoga-Sūtra of Patañjali. Translated by Edwin F. Bryant. North Point Press, 2009.
- Thompson, Evan. Waking, Dreaming, Being: Self and Consciousness in Neuroscience, Meditation, and Philosophy. Columbia University Press, 2015.
- Upaniṣads. *The Principal Upanishads*. Translated by S. Radhakrishnan. HarperCollins, 1994.
- Varela, Francisco J., Evan Thompson, and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. MIT Press, 1991.
- Varela, Francisco J. ―Neurophenomenology: A Methodological Remedy for the Hard Problem.‖ *Journal of Consciousness Studies*, vol. 3, no. 4, 1996, pp. 330–49.
- Abhidharmakośabhāṣyam. Translated by Louis de La Vallée Poussin, 6 vols. L'Institut de Civilisation Indienne, 1923-31.
- Wallace, B. Alan. *The Attention Revolution: Unlocking the Power of the Focused Mind*.Wisdom Publications, 2006.
- Whicher, Ian. *The Integrity of the Yoga Darśana: A Reconsideration of Classical Yoga*. SUNY Press, 1998.
- Wujastyk, Dominik. *The Roots of Ayurveda*. Penguin Classics, 2003.