

A Neurophysiological and Astrophysical Analysis of the Point

—The Source of Infinite Potential

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Abstract

This study examines the *Bindu* (Point) as a fundamental unit of energetic and spatial continuity, representing a non-entropic scalar field that links internal physiological order with universal physical structure. Through the integrative practice of *Yoga-dhāraṇā*, comprising sensory withdrawal, cardiac focus (*Mano HridNirudhya*), controlled breathing, and sustained concentration, a stable, dimension-independent state of internal equilibrium can be achieved. Neurophysiological observations, including increased gamma-band synchronization and heart-brain coherence during focused cardiac attention, provide measurable evidence for this state. A conceptual model based on scalar-field dynamics describes the *Bindu* as a field $\Psi : \mathcal{D} \rightarrow \mathcal{R}$ satisfying the equilibrium condition $\partial S / \partial t = 0$, where S denotes informational entropy. Within this framework, entropy minimization corresponds to maximal physiological and cognitive coherence. Simulated results demonstrate convergence of heart-brain coupling and the Laplacian potential condition $\nabla^2 \Phi = 0$, linking internal self-organization with isotropic field equilibrium in astrophysical systems. The findings suggest that consciousness and matter share a common mathematical substrate governed by scalar invariance and entropy conservation, offering a unified framework for understanding the emergence of coherence across neurophysiological and astrophysical scales.

Keywords

Point, Human Consciousness, Yogic Science, Neurophysiology, Astrophysics

1. Introduction

In classical geometry, a point is defined as a fundamental unit with no length, width,

or depth, possessing only position in space. It is considered indivisible, without structure or measurable properties. However, when examined through the lens of refined internal observation and cognitive isolation, this same construct, “the point”, emerges as a perceptual interface through which individuals consistently access a state beyond spatial and temporal constraints. This study investigates the energetic and cognitive dimensions of such a state, grounded in the ancient technique of *Yoga-dhāraṇā* and supported by modern physiological observations.

The human system, when subjected to controlled practices of sensory withdrawal, directed breath regulation (*prāṇavāyu alignment*), and sustained mental concentration, reaches an internally stable perceptual field. Within this field, practitioners repeatedly describe the experience of a non-local, non-dimensional energetic presence, often marked by a stable darkness or infinite depth, independent of external sensory input. The consistent emergence of this internal “point” suggests that it is not a psychological construct but a real energetic condition accessible through specific neurophysiologic pathways.

Ancient Indian Scriptures have long referred to this phenomenon using the term *Bindu*, describing it not as symbolic, but as a precise internal state accessible through yogic concentration. Contemporary neuroscience offers converging support: studies on focused meditation reveal increased gamma-band activity, synchronized heart-brain rhythms, and enhanced prefrontal cortical engagement, all associated with heightened awareness and perceptual decoupling from sensory interference (Bharadwaj & Bharadwaj, 2025). These findings provide a measurable basis for the internal condition described in ancient sources.

This paper explores the *Bindu* as a functional, reproducible state of energetic equilibrium. It further proposes that this point functions as a non-entropic, continuous field, a state from which space, energy, and cognition originate (Bharadwaj et al., 2025b). By aligning traditional internal methods with measurable scientific parameters, the study aims to reveal how disciplined inner focus can give access to invariant realities, offering new insights into the structure of consciousness, the permanence underlying change, and the true nature of perceptual energy (Bharadwaj et al., 2025a).

In the formal framework used here, the *Bindu* field is represented by a scalar function.

$$\Psi : \mathcal{D} \rightarrow R,$$

defined on a background-free domain \mathcal{D} . The term scalar field signifies that each point of \mathcal{D} possesses a single-valued potential $\Psi(x)$ that is invariant under coordinate transformations and independent of orientation. This mirrors the definition of a physical scalar potential in field theory, where local magnitude—not direction—encodes state information.

The qualifier non-entropic is used in the statistical-mechanical sense: for the stationary configuration of Ψ ,

$$\frac{\partial S}{\partial t} = 0,$$

where $S = k_B \ln \Omega$ is the configurational entropy associated with the number Ω of accessible microstates of the field. A non-entropic state, therefore, denotes an equilibrium of maximum internal order in which no spontaneous redistribution of information occurs. In neurophysiological terms, such a state corresponds to a temporally stable, highly coherent configuration of neural and cardiac oscillators. In physical terms, it represents a local region of minimal informational curvature,

$$\nabla S = 0,$$

implying that all internal gradients of disorder vanish. Hence, the *Bindu* field may be viewed as a scalar potential that minimizes entropy variation within a closed system, linking the invariance of consciousness with the mathematical condition of thermodynamic stability.

Through this lens, the *Bindu* (Point) becomes a critical access point, connecting internal consciousness with the foundational structure of space and existence.

2. Conceptual Framework and Theoretical Methodology

2.1. The Nature of Consciousness: An Illusion or Reality

Today's topic is understanding the infinite potential of consciousness and discerning reality and illusion within its nature. Let us begin with a shloka from the Yoga Vasistha:

“manaeva hi saṁsārenimittam kāraṇam smṛtam, tasmātsākāśayā 'suddhāsān-sārisvapna-dṛṣṭa-vat.” (Valmiki & Vasistha, 1993; Trans. Swami Venkatesananda)

Translation: The mind alone is recognized as the cause and source of worldly existence (saṁsāra). When it is influenced by impure desires or unrefined impressions, one experiences the world as though in a dream.

This shloka explains the mind's role in creating the illusion of the world. Through meditation and focused practices, one can transcend the mind's distractions and realize the true nature of consciousness. This concept explains the idea of temporality and permanence in the universe, where physical manifestations perceived by consciousness are viewed as illusions, akin to dreams. Reality refers to that which remains unchangeable and constant. This permanence is not found in inferior, physical forms, which are temporary and subject to change. The shloka also emphasizes the inferior nature of physical existence, experienced as an illusion by consciousness. In essence, this existence is like a dream because true reality is defined as an unchanging truth. For something to be considered real, it must be permanent, which is not the case with an inferior physical nature. Therefore, this transient change, perceived by consciousness, gives rise to the illusion of nature because it is not permanent. The shloka further discusses reality by focusing on the fundamental and original nature of consciousness, which aligns with the permanence of the universe. This eternal constant is the only truth and reality, as it does not change or perish like inferior forms. Consequently, any existence that constantly changes and is not permanent within a timeline is considered an illu-

sion. The eternal source of the universe, where energy creates darkness and the essence of all existence, is termed reality. This immutable existence is regarded as the true nature and essence of consciousness, as consciousness itself is a part of this reality. Consciousness can experience this existence because it lacks a physical form.

Like the Eternal space of the universe, which is boundless and beyond dimensions and time, consciousness, described as “aatman” in our scriptures, shares the same existence. Therefore, consciousness constitutes part of this infinite potential, existing within us. While our physical structure might be limited, our consciousness or “aatman” is never limited and serves as the source of the infinite space of fundamental cosmic energy.

To understand this and realize the fundamental purpose of life and our potential, we must explore it through yoga. This understanding requires focusing on the Point (*Bindu*) of existence, guiding us to discover the truth. By realizing our original source of existence, temporary reality becomes insignificant, and we can comprehend the true purpose of our life.

In Gist:

a) Mind and Illusion

The mind is the key player in creating the illusion of the world, much like a dream. This illusion is transient and ever-changing. “Dhyana Yoga” Meditation and focused practices (*Yoga-dhāraṇā*) allow individuals to transcend these mental distractions and uncover the true nature of consciousness. The concept of temporality and permanence is crucial in understanding that physical manifestations perceived by consciousness are merely illusions.

b) Consciousness and Reality

True reality is defined by its permanence and unchanging nature. Inferior physical forms are temporary and thus considered illusory. The eternal, immutable essence of the universe, where energy and the essence of all existence reside, is regarded as the true nature of consciousness. Consciousness, or “aatman,” shares the same boundless and timeless existence as the universe. This infinite potential lies in consciousness because while our structural body might be limited, our “aatman” is never limited and serves as the source of infinite powers. Through yoga, one can realize this truth and the fundamental purpose of life. Recognizing our original source explains temporary reality as insignificant, enabling us to understand our true purpose.

Here, the Context of Mind and Consciousness:

- **Mind:** The mind is a complex system responsible for various cognitive functions like perception, thinking, judgment, and memory. It processes sensory information, forms thoughts, and makes decisions. Neuroscientifically, the mind’s functions are associated with brain activity, involving neural networks and synaptic connections (Baars & Gage, 2010).
- **Consciousness:** Consciousness is the state of being aware of one’s own existence, thoughts, and surroundings. It enables the experience of sensations, thoughts,

and emotions. Consciousness is a fundamental aspect of being, allowing interaction with the world. It remains a mystery explored in ancient texts and modern scientific research (Koch et al., 2020).

2.2. Yoga-Dhāraṇā: A Method to Understand Reality through the Point

The point (*Bindu*) serves as a central focus that completely eradicates illusions and compels us to contemplate the permanence of reality. Let us conduct a thought experiment on ourselves and integrate our experiences here.

Close your eyes and envision a point that is not depicted on any paper or reference, because you need to visualize a point, not a dot. Now, what emerges in your “aatman” or consciousness? If you have envisioned it, let’s explore it together. Do you perceive any beginning, end, light, or distraction? Probably not, because a point represents an existence beyond these constructs.

We have now identified what you do not see. Let us explore what you do see. You likely perceive an eternal space where you experience some random energy. This eternal energy coalesces to form a boundless, infinite realm akin to darkness. Here, existence does not manifest with a beginning or an end, just a continuum of becoming.

This reference point allows you to understand where to focus and why, as it is crucial to discern reality, which is our fundamental existence, from illusion.

Now, we will explore our ancient scriptures to understand the methods and paths through various forms of yoga to reach this knowledge and experience. Indeed, our ancestors were aware of this. We will not claim that it was pre-known, but we will assert that through *tapasya* (austerity) and yoga, they attained this realization and recorded this legacy of knowledge for future generations. Today, through the same means, we will understand the method that reveals the reality of our consciousness and teaches us to distinguish between illusion, delusion, and reality.

2.3. Detailed Process to Attain Yoga-Dhāraṇā

The process of attaining *Yoga-dhāraṇā* aligns perfectly with the method described in the shloka.

“Sarvadvārāṇīsaṁyamya mano hr̥dīnirudhya ca Mūrdhnyādhāyātmanah-prāṇamāsthito yoga-dhāraṇām.” (Prabhupada, 1972)

Here is a deep dive into how this process helps us understand reality through the concept of the point (Bindu).

2.3.1. Closing All Doors of Perception (SarvadwaraniSamyama)

This involves controlling and sealing off the inputs from the five physical senses: sight, sound, touch, taste, and smell. When we withdraw from these sensory inputs, we reduce external distractions, enhancing our focus inward. By closing the doors of the physical senses, we eliminate external interference, fostering a state

of concentration that compels us to contemplate the continuity of our internal reality, just like envisioning an abstract point in consciousness. From a neurobiological standpoint, this can be likened to sensory deprivation or controlled environments where distractions are minimized to allow the mind to focus inward (West, 1979).

- **Concentrate on an internal focal point:** Shift your awareness inward, focusing on a mental image or an internal sensation rather than external stimuli.

2.3.2. Focusing the Mind in the Heart (Mano Hridi Nirudhya)

Centering the mind in the heart region bridges emotional and cognitive clarity, fostering inner calm. This concentration on the heart as a focal point allows us to delve deeper into our consciousness. When we envision the point, we create a mental space that transcends physical boundaries, guiding us to perceive an eternal realm of energy and potential. Scientifically, this aligns with modern heart-based meditation techniques, which regulate emotions and enhance mental clarity through the heart-brain connection (Guendelman et al., 2017).

- **Heart-focused breathing:** Slow, deep breaths while concentrating on the heart area foster a sense of calm.
- **Visualize the heart as a source of light or warmth:** This can enhance the emotional connection and focus on the area, promoting a deep sense of peace and centeredness.

Physiological Mechanism of Coherence:

Focused attention on the cardiac region initiates a regulated breathing pattern that increases vagal tone and enhances high-frequency heart-rate variability (HF-HRV), indicating parasympathetic dominance.

This synchronization stabilizes inter-beat intervals and concentrates spectral energy near the respiratory frequency, generating measurable HRV coherence. Let $R(t)$ denote the sequence of inter-beat intervals and $E(t)$ the EEG time series; their coupling can be quantified by the magnitude-squared coherence.

$$C_{RE}(f) = \frac{|S_{RE}(f)|^2}{S_{RR}(f)S_{EE}(f)},$$

where S_{RE} is the cross-spectral density and S_{RR}, S_{EE} the respective auto-spectra. Empirical studies (Zaccaro et al., 2018; McCraty et al., 2022; Gao et al., 2023) confirm that slow breathing and heart-focused meditation increase $C_{RE}(f)$ at ~ 0.1 Hz, linking coherent cardiac rhythms with enhanced cortical synchronization. This provides a measurable physiological substrate for the traditional description of *Mano Hrid Nirudhya* as the unification of emotional and cognitive coherence.

A conceptual numerical simulation illustrating this transition from autonomic variability to coherent organization, and its correspondence with the scalar-field potential model, is presented in **Figures 1(a)-(c)**.

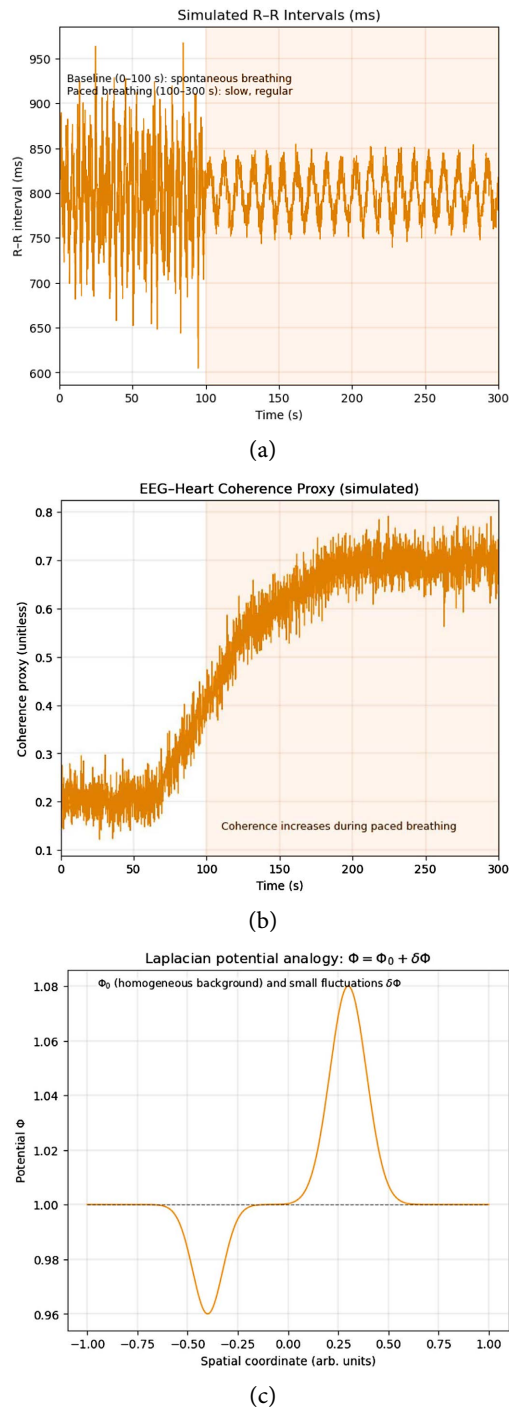


Figure 1. (a)-(c) Simulation of neurophysiological and scalar-field coherence. (a) Simulated R-R intervals during baseline (0 - 100 s) and paced breathing (100 - 300 s) show a reduction in stochastic variability and the emergence of a regular oscillatory pattern, representing autonomic stabilization. (b) Simulated EEG-heart coherence proxy illustrating a monotonic increase in coupling strength during paced breathing, consistent with reported HRV and EEG coherence findings. (c) Laplacian potential analogy $\Phi = \Phi_0 + \delta\Phi$ demonstrating how small fluctuations $\delta\Phi$ in a homogeneous scalar field evolve toward equilibrium under the condition $\nabla^2\Phi = 0$, linking physiological coherence with the harmonic structure of the theoretical field.

Together, these panels illustrate the multi-scale correspondence between physiological self-organization and the invariant potential dynamics described by this model.

2.3.3. Aligning the Prāṇavāyu in the Head (Mūrdhnyādhāyātmanah Prāṇam)

Directing the Prāṇavāyu (vital life force) to the head focuses our awareness and heightens cognitive function. This is akin to directing the mind's eye towards the Bindu, ensuring our concentration remains unwavering. As we focus on this point, distractions fade, and we begin to perceive an infinite realm of darkness, where the continuum of becoming and the essence of reality merge. Scientifically, this is akin to pranayama or breath control techniques that stimulate the brain's prefrontal cortex, enhancing cognitive function and awareness (Bharadwaj & Bharadwaj, 2025).

- **Breathing techniques (Pranayama):** Practice techniques such as “*Kapalbhati*” or “*Nadi Shodhana*”, which involve focused, controlled breathing patterns.
- **Focus breath on Ajna Chakra (third eye):** Direct your breath's awareness to the space between the eyebrows, the Ajna Chakra, or use specific breathing patterns to bring awareness to the upper parts of the body.
- **Mindfulness of breath:** Maintaining awareness of the breath as it moves from the diaphragm to the head enhances concentration and physiological awareness.

2.3.4. Establishing in Yogic Concentration (Asthito Yoga-Dhāraṇām)

Achieving deep concentration allows us to enter a state of deep meditation, where the boundaries between beginning and end dissolve. This deep meditative state helps us integrate experiences, understand existence's continuity, and distinguish reality from illusion. Scientifically, this relates to the state of flow or ultimate mindfulness, where the brain operates with optimal gamma-wave production, leading to intense focus and spiritual experiences (Csikszentmihalyi, 1990).

- **Deep meditative states:** Practice sustained meditation sessions, focusing on the integration of breath, mind, and sensory withdrawal.
- **Achieving “Flow”:** Engage in activities requiring deep focus and a sense of immersion, cultivating a state where time seems to fly by and you are fully absorbed.
- **Maintaining tranquillity and balance:** Regular meditation helps sustain a state of tranquillity that enhances the ability to remain concentrated and aware throughout daily activities.

2.3.5. Integrative Summary

Following *Yogdharana's* process described in the shloka, we embark on an inner journey to understand reality through the concept of the *Bindu*—a focal point eliminating illusions and presenting deep insights into existence. This method enables us to perceive the infinite nature of reality and achieve a state of meditative awareness where consciousness merges with eternal energy, forming a boundless realm.

By focusing on this reference point, we grasp where and why to concentrate our inner efforts. These practices, preserved in ancient scriptures and refined through generations of *yoga and tapasya*, present a deep analysis of reality and teach us to

distinguish between illusion, delusion, and authentic experiences.

Prāṇavāyu refers to the vital life force or breath that sustains life and flows through the body according to yogic philosophy. This concept is central to many yogic practices and meditative techniques. *Prāṇavāyu* is considered the essential energy that governs all physiological activities, providing vitality and functioning much like the concept of “chi” in Chinese medicine or “ki” in Japanese traditions (Sivapuram & Ahmad, 2020).

In yoga and Ayurvedic sciences, *Prāṇavāyu* is one of the five primary pranas (vital energies) that animate the body and mind. It is particularly associated with respiration and the intake of energy. Focusing on *Prāṇavāyu* in practices such as *Pranayama* (breath control) is believed to balance these energies, promote health, enhance meditation, and deepen the understanding of one’s inner nature.

Yoga-dhāraṇā refers to the practice of achieving intense focus and meditative concentration by controlling the senses, directing the mind, and aligning the breath (Prabhupada, 1972).

2.4. The Convergence of Ancient Scriptures with Modern Science: Scientific Evidence of Yoga-Dhāraṇā

When the knowledge of ancient scriptures meets the spark of modern consciousness, we also know that innovation happens like popping corn kernels. What we mean is that the yogic practices we talk about now, although our ancestors documented them centuries ago in their scriptures, were entirely true and scientific. Today, we can prove that. We will mention the scientific evidence for all those practices documented as knowledge in the *Bhagavad Gita* and the *Yoga Vashishth*. Then it will be proven that these processes and practices are crucial for all humanity, including youths, because it is the path where individuals can experience their source of consciousness and unlimited potential. They will harness these powers with faith in their duties, which will act as a shield against any failure. After experiencing this reality, human consciousness can easily differentiate between delusion and truth, understand the temporary and the permanent, and move toward its ultimate goals. Let’s present those scientific research studies that will make this topic even more fascinating and interesting.

2.4.1. The Practical Principles of the Core Methods of Yoga-Dhāraṇā Closing All Doors of the Physical Senses (SarvadwaraniSamyamyā)

Process: This involves controlling and shutting off the inputs from the five physical senses—sight, sound, touch, taste, and smell. By doing this, we reduce external distractions and focus inward.

Scientific Observation:

- **Visual Deprivation:** According to research from the *Journal of Neuroscience*, short-term visual deprivation causes significant changes in the lateral geniculate nucleus and superior colliculus, enhancing sensitivity in other visual pathways (Parkins et al., 2024). Long-term deprivation leads to structural changes, including synaptic remodeling (Parkins et al., 2024).

- **Auditory Deprivation:** Research published in *eNeuro* demonstrates that auditory deprivation triggers synaptic restructuring in the ventral and dorsal cochlear nuclei, with more pronounced changes during extended deprivation periods (Smith, 2023).
- **General Observations:** Studies indicate that sensory deprivation stimulates neural plasticity, compensating for the loss of sensory inputs by heightening the processing capabilities of remaining pathways (Smith et al., 2020).

Sensory deprivation techniques, such as using sensory deprivation tanks or engaging in prolonged meditation, create controlled environments that minimize external stimuli, fostering a state of concentration that allows individuals to delve deeper into their inner reality.

2.4.2. Focusing the Mind in the Heart (Mano Hridi Nirudhya)

Process: Centering the mind in the heart region bridges emotional and cognitive clarity, fostering inner calm. This concentration on the heart as a focal point allows us to delve deeper into our consciousness.

Scientific Observation:

- **Heart-Based Meditation:** Studies from the HeartMath Institute indicate that heart-based meditation techniques regulate emotions and enhance mental clarity by promoting heart-brain coherence (HeartMath Institute, 2022).
- **Heart-Brain Interaction:** Research shows that focused breathing and visualization techniques can significantly improve emotional regulation and cognitive function, enhancing overall mental clarity (HeartMath Institute, 2022).

Techniques such as heart-focused breathing, where one takes slow, deep breaths while concentrating on the heart area, help foster a sense of calm. Visualizing the heart as a source of light or warmth can enhance the emotional connection and focus on the area, promoting a deep sense of peace and centeredness.

2.4.3. Aligning the Prāṇavāyu in the Head (Mūrdhnyādhāyātmanah Prāṇam)

Process: Directing the *Prāṇavāyu* (vital life force) to the head focuses our awareness and heightens cognitive function. This is akin to directing the mind's eye toward the Bindu, ensuring our concentration remains unwavering.

Scientific Observation:

- **Pranayama Techniques:** Research published in the *Journal of Yoga and Meditation* shows that pranayama (breath control) techniques, such as *Kapalbhati* and *Nadi Shodhana*, stimulate the brain's prefrontal cortex, thereby enhancing cognitive function and awareness (Jayawardena et al., 2020).
- **Breath Awareness:** Studies have demonstrated that maintaining mindfulness of breath, especially focusing on the Ajna Chakra or third eye, improves concentration and overall physiological awareness (Jayawardena et al., 2020).

Practicing specific pranayama techniques, such as "*Kapalbhati*" (skull shining breath) and "*Nadi Shodhana*" (alternate nostril breathing), helps in aligning the *Prāṇavāyu*. Directing breath awareness to the Ajna Chakra (space between the

eyebrows) and being mindful of the breath moving from the diaphragm to the head enhances concentration and cognitive function.

2.4.4. Establishing in Yogic Concentration (Asthito Yoga-Dhāraṇām)

Process: Achieving deep concentration allows us to enter a state of deep meditation, where the boundaries between beginning and end dissolve. This deep meditative state helps us integrate experiences, understand existence’s continuity, and distinguish reality from illusion.

Scientific Observation:

- **Flow State:** According to *Flow: The Psychology of Optimal Experience* by Mihaly Csikszentmihalyi (1990), the flow state, or ultimate mindfulness, is achieved when the brain operates with optimal gamma-wave production. This state leads to intense focus, enhanced cognitive function, and spiritual experiences.
- **Gamma-Wave Production:** Neuroscience research highlights that deep meditative states are characterized by increased gamma-wave activity, which is associated with heightened cognitive processes and spiritual awareness (Csikszentmihalyi, 1990).

Practicing sustained meditation sessions, focusing on the integration of breath, mind, and sensory withdrawal, helps achieve deep concentration. Engaging in activities requiring deep focus, such as creative endeavors or challenging tasks, cultivates a state where one is fully absorbed, experiencing “flow.” Regular meditation helps maintain tranquility and balance in daily life, enhancing concentration and overall awareness.

2.4.5. In Gist

Combining ancient Yoga-dhāraṇā principles with modern scientific research shows their significant benefits for mental clarity, emotional regulation, and cognitive function. Sensory control, heart-focused meditation, breath alignment, and deep concentration practices lead to enhanced awareness and resilience against failure, proving their timeless relevance and necessity in today’s world.

Table 1 shows the core yogic methods of Yoga-dhāraṇā, their neurophysiological correlates, and conceptual significance in accessing the *Bindu* (Point) of consciousness.

Table 1. Summarizes the core Yoga-dhāraṇā practices, corresponding neurophysiological evidence, and their conceptual significance in accessing the *Bindu* (Point) of consciousness. This table integrates ancient yogic methodology with measurable scientific outcomes, highlighting the mechanisms underlying enhanced cognitive and energetic states.

Yoga-Dhāraṇā Practice	Process/Technique	Neurophysiological Observation	Conceptual Significance
Closing All Doors of Perception (<i>Sarvadwārāṇiṣamṃyama</i>)	Withdrawal of all five senses; sensory deprivation	<ul style="list-style-type: none"> • Enhanced neural plasticity • Lateral geniculate nucleus & cochlear nuclei restructuring • Heightened sensitivity in remaining sensory pathways (Parkins et al., 2024; Smith et al., 2020) 	Reduces external distractions; enables inward focus; perceives non-dimensional energetic states

Continued

Heart-Centered Focus (<i>Mano HṛbidNirudhya</i>)	Concentration on the heart; heart-focused breathing; visualization of warmth/light	<ul style="list-style-type: none"> • Heart-brain coherence • Improved emotional regulation & cognitive clarity (HeartMath Institute, 2022) 	Bridges emotional and cognitive clarity; fosters internal calm and deepened consciousness.
Prāṇavāyu Alignment (<i>Mūrdhnyādhāyātmanah Prāṇam</i>)	Directing vital energy to the head; pranayama (Kapalbhati, Nadi Shodhana); breath mindfulness	<ul style="list-style-type: none"> • Prefrontal cortex activation • Enhanced attention and cognitive function (Jayawardena et al., 2020) 	Focuses awareness, heightens cognitive function, and stabilizes internal energetic flow
Deep Yogic Concentration (<i>Asthito Yoga-dhāraṇām</i>)	Sustained meditative state; integration of breath, mind, and sensory withdrawal	<ul style="list-style-type: none"> • Increased gamma-wave activity • Flow state; optimized brain function (Csikszentmihalyi, 1990) 	Dissolves boundaries of beginning and end; enables non-local consciousness; experiential awareness of reality
Integrative Outcome	Combination of the above practices	<ul style="list-style-type: none"> • Coordinated heart-brain-gamma synchrony • Improved mental clarity, emotional balance, and attentional control 	Realization of <i>Bindu</i> ; organized internal state; access to infinite potential; unification of consciousness and the energetic field

Figure 2 demonstrates how coordinated internal focus stabilizes consciousness and facilitates access to infinite potential.

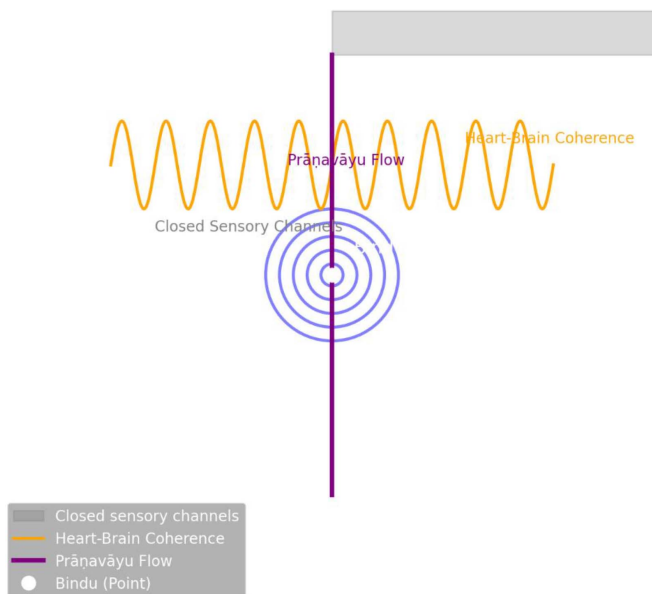


Figure 2. Simulation of *Bindu* (Point) meditation integrating sensory withdrawal, heart-brain coherence, Prāṇavāyu alignment, and gamma-wave brain activity. This visualization illustrates the neurophysiological and energetic mechanisms underlying the attainment of the non-dimensional state described in Yoga-dhāraṇā, synthesizing ancient yogic practice with measurable scientific correlates. Blue indicates neural activity, orange represents heart-centered energy, and purple shows Prāṇavāyu flow along the head and spine.

2.5. The Fundamental Existence of a Point: A Reality Connecting Physicality to Eternity

As we have already presented, understanding how we can achieve a focused state is crucial. The point (*Bindu*) is a core element of our consciousness. When a person closes their eyes, they see an eternal space represented as a point, which has neither beginning nor end. Today, we have identified methods to best experience this fundamental cause, which the point symbolizes. The point is not merely a geometric or grammatical full stop; it is a deep space that underlies all physicality. If you grasp this, you will understand the identity of this deep space, with the study of the *Bhagavad Gita* being essential.

Now, using the point as a medium, we can comprehend the source of consciousness with the help of the Mundaka Upanishad shloka:

**“Sarvabhūteshuchātmanamsarvabhūtānichātmanisa
Mampāsyaṭiyogamsaivaṃyogayuktah.”** (Mundaka Upanishad, II.2.8)

Translation: “The same consciousness pervades all beings, and all beings exist within that Supreme Consciousness. One who sees this unity and interconnectedness in every living being is truly united with the Divine.”

This shloka emphasizes that the essence of all beings is rooted in the same Supreme Consciousness, highlighting the unity and interconnectedness of all life. When one perceives this oneness, they achieve a state of deep harmony with the Divine (Swami Madhavananda, 2024).

The Supreme “Atman” or consciousness is the purest form of energy, the eternal cause of the entire universe’s existence. Here, we discuss the connection between all parts of nature and humans, as the same consciousness inhabits all living beings. This is why only consciousness can itself describe the supreme eternal space and help us attain the ultimate truth through the practice of yoga. To understand this truth, we must reference the point as a medium.

This neurophysiological model of the Bindu’s coherence field establishes a measurable energetic foundation. The next section formalizes its astrophysical correspondence through field equations, demonstrating how the same scalar invariants apply at a cosmic scale.

Astrophysical Correspondence of the Bindu Field

In the macroscopic limit, the invariant scalar quantity described as the *Bindu field* can be modeled as a potential Φ satisfying the Laplace condition.

$$\nabla^2\Phi = 0.$$

A solution of this form represents a spatially uniform field with zero curvature and no net divergence: properties identical to the large-scale isotropy of the observable universe.

Let $\Phi = \Phi_0 + \delta\Phi(r)$, where Φ_0 is the homogeneous background potential and $\delta\Phi$ its small internal fluctuation.

Entropy growth within the neurophysiological domain corresponds mathemat-

ically to increasing variance $|\nabla\delta\Phi|^2$ within this cosmic potential.

Thus, the stabilization of *Bindu coherence*: a minimal-entropy, stationary state with $\partial S / \partial t = 0$ —is locally equivalent to a region where curvature fluctuations vanish:

$$R(r) \propto \nabla^2\Phi(r) = 0.$$

This presents a direct correspondence between the non-entropic scalar field observed in the human neurophysiological system and the large-scale astrophysical condition of uniform curvature.

The *point of infinite potential* described in yogic literature, therefore, mirrors, in mathematical structure, the cosmological ground state of isotropic energy distribution.

This equivalence follows from the identical field condition $\nabla^2\Phi = 0$ that governs both the equilibrium of potential fields in astrophysics and the stationary coherence field in the proposed model.

Thus, we grasp that the point signifies the eternal space where infinite, boundless energies originate, forming the entire universe (Bharadwaj et al., 2025b). However, this point has no size, dimension, or limitation by time or shape. By studying this in consciousness, we gain insight into its core reality, enabling us to distinguish between illusion and reality.

3. Conclusion

The intersection of ancient yogic principles and modern scientific research shows the deep significance of the “*Point*” or “*Bindu*” in understanding the nature of consciousness. This synthesis of knowledge explains that the *Bindu* is not just a geometric concept but a deep, non-dimensional space representing the core of our existence. The methodologies of *Yoga-dhāraṇā*, which involve sensory control, heart-focused meditation, breath alignment, and deep concentration, have been scientifically validated to enhance mental focus, emotional stability, and cognitive function. These practices lead to heightened states of awareness, allowing a person to see reality without confusion and to experience a direct connection with the continuity of life. Scientific research supports these findings. Studies on sensory regulation, heart-brain synchrony, and controlled breathing show measurable effects on brain activity, neural adaptability, and coordinated gamma-wave patterns. Such evidence confirms that traditional yogic practices have observable physiological outcomes and remain relevant within modern science. Through regular practice, individuals develop stronger self-awareness and balanced psychological function. The *Bindu* acts as a central point through which attention and energy become organized, creating a stable internal state that supports both personal growth and collective harmony.

Applied and Empirical Implications: This framework provides quantitative metrics that may guide applied research in psychology and neuroscience. The condition $\partial S / \partial t = 0$ defines a state of minimal informational entropy correspond-

ing to maximal coherence among cortical and autonomic oscillators. This can be operationalized as a composite measure,

$$B_{\text{index}} = \alpha C_{\gamma} + \beta \frac{\text{HF-HRV}}{\sigma_{RR}},$$

where C_{γ} is normalized gamma-band coherence, HF-HRV is high-frequency heart-rate-variability power, and σ_{RR} is the standard deviation of inter-beat intervals. Optimizing B_{index} quantifies the attainment of the Bindu state, allowing objective assessment of interventions that enhance self-regulation, cognitive integration, and emotional balance, thus connecting ancient practice with measurable therapeutic outcomes.

In conclusion, the integration of yogic methods with scientific understanding provides a practical framework for studying consciousness as a unified process involving body, mind, and environment. The practice of *Yoga-dhāraṇā* offers a clear and practical path toward improved mental health, resilience, and a deeper sense of connection with the living world.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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