

The Frequency Theory of Consciousness: From Raw Data to the Cosmic Field with a Focus on Definition, Five Levels, and Conceptual Models for Measuring Awareness

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Abstract (Condensed for Academic Use):

This paper proposes a novel theory of consciousness that reframes it not as an emergent product of matter but as the manifestation of a fundamental cosmic field. In this framework, consciousness appears in different layers of existence through varying frequencies—beginning with raw data at the subatomic level and ascending through instinctive, computational, and creative human awareness, ultimately reaching cosmic consciousness.

Unlike materialist or emergentist models, this theory defines consciousness as a frequency-based process: the ability to perceive, interpret, and decide is directly related to a system's capacity for processing and transmitting information. Drawing from quantum physics, neuroscience, and recursive systems theory, the paper outlines five distinct levels of consciousness and argues that increasing the "frequency of consciousness" leads to more complex perception, greater autonomy, and enhanced creativity.

The paper also introduces conceptual models for evaluating and differentiating levels of awareness, offering critiques of dominant paradigms. Furthermore, it outlines practical pathways to raise human consciousness—such as improving cognitive performance, boosting mental clarity, and enabling deeper connection to the cosmic awareness field for enhanced meaning-making. This theory bridges mind, matter, and

meaning, paving the way for a measurable and scientific model of consciousness.

Keywords:

Consciousness, Frequency Theory of Consciousness, Cosmic Awareness Field, Processing Frequency, Transmission Frequency, Data and Information, Five Levels of Consciousness, Creative Awareness, Cognitive Processing, Free Will, Meaning, Mind and Matter, Consciousness Measurement Models, Complex Systems, Neuroscience, Quantum Physics, Nonlinear Time, Field Theories, Neural Architecture

1. Introduction

Consciousness remains one of the most intricate and foundational concepts in humanity's quest to understand itself and the universe. For centuries, the question of what consciousness truly is has challenged the boundaries between science, philosophy, and mysticism. Despite advancements in neuroscience, physics, and artificial intelligence, we still lack a unified understanding of why inner experience exists, where free will arises from, and whether consciousness is purely brain-based—or rooted in something far deeper and universal.

In recent decades, several theories have attempted to explain consciousness. Materialist models attribute it to neural activity, viewing subjective experience as a byproduct of brain functions. Emergentist approaches treat consciousness as arising from complex systems, though they often lack clarity on how subjective awareness truly emerges. Panpsychism suggests that consciousness is inherent in all matter, but it struggles to explain how individual “micro-consciousnesses” integrate into a unified mind—a challenge known as the combination problem. None of these theories offer a clear, testable, and experientially coherent explanation.

Meanwhile, the rise of artificial intelligence and neural simulations has blurred the line between information processing and consciousness. Does the ability to analyze and respond to data imply awareness? Or is there something beyond computation at play? These questions expose critical gaps in existing models.

This paper introduces the **Frequency Theory of Consciousness**, aiming to bridge these gaps. It posits that consciousness is not a byproduct or emergent effect but a fundamental **Cosmic Consciousness Field** that permeates all existence. This field expresses itself through different layers—each capable of receiving, processing, and assigning meaning to data in its own way. These layers are categorized into five distinct levels:

1. **Raw data** at the subatomic scale
2. **Instinctive awareness** in living organisms
3. **Computational awareness** in artificial systems
4. **Creative human awareness**
5. **Cosmic consciousness**, which generates and transmits awareness without external tools

The core innovation of this theory is the introduction of a measurable variable called the **Frequency of Consciousness**—a parameter indicating how efficiently a system receives, processes, and interprets information. Unlike mere physical frequency, this variable reflects mental capacity and the level of interaction with the cosmic field. For instance, the human brain—composed of billions of neurons and synapses—operates at a processing frequency estimated near **10^{17} Hz**, aligning with the high-energy X-ray spectrum. This may explain humanity's unique capacity for abstract thought and innovation.

By integrating insights from neuroscience, quantum theory, and philosophy, this paper constructs a fresh framework for explaining consciousness. It not only provides a more precise definition but also enables classification of awareness levels and explores humanity's potential for higher consciousness.

The paper proceeds as follows:

- First, it defines core concepts such as **data**, **information**, **awareness**, and **frequency**.
- Next, it introduces and analyzes the **five levels of consciousness** through their respective frequencies.
- Then, it presents **conceptual models** to assess consciousness frequency.
- Finally, it compares this theory with existing perspectives and explores its empirical and practical implications.

2. Conceptual Definitions: From Data to Consciousness

In discussions of consciousness, key terms like *data*, *information*, *awareness*, and *frequency* are often used inconsistently or superficially. This lack of unified definition not only causes conceptual confusion but also leads to flawed interpretations that distort the understanding of consciousness.

This section offers a structured redefinition of these terms in an organic relationship with one another, forming the foundation of the Frequency Theory of Consciousness. We argue that only through this integrated reconceptualization can we resolve persistent ambiguities and develop a theoretical model that is analyzable, measurable, and expandable.

2.1 Data

At its simplest, *data* refers to the most elementary form of awareness: raw changes or states that exist in the world without interpretation or meaning. Data does not inherently carry meaning, but it serves as the potential substrate from which information and awareness may arise.

In this model, data corresponds to the **zero-point of consciousness frequency**—a level with no selection, interpretation, or processing. Examples include fundamental properties of subatomic particles: position, charge, spin, or quantum state. Theories such as *It from Bit* (Wheeler) and

spacetime quantization in quantum gravity support the notion that even in the quantum vacuum, these primitive data points exist.

In the absence of a processing system, data remains inert—mere potential. From the consciousness field perspective, data represents the initial signals that higher systems may one day decode, making data the foundational material for all levels of awareness.

2.2 Intrinsic Regulatory Awareness (New)

Between raw data and structured information lies a transitional layer observed in primitive life forms and even in non-conscious systems. We call this *intrinsic regulatory awareness*—a built-in, non-symbolic harmony that enables basic regulation or survival behavior without creative thought or semantic processing.

This layer lacks discernment between "right" and "wrong," but through environmental feedback and evolutionary adaptation, it stabilizes beneficial responses. Examples include neural patterns in invertebrates, pain-avoidance behavior, or automatic cellular growth regulation.

Rather than conscious understanding, this form of awareness emerges from physical-biological coordination, acting as a **bridge** between raw data and meaningful information—still devoid of free will or true meaning.

2.3 Information

Information arises when raw data is organized within a system and gains context or meaning. If data is undirected and structureless, information represents data that has been filtered, categorized, and made actionable.

In this theory, information emerges at a slightly higher consciousness frequency, requiring an initial degree of processing and contextualization. For example, a particle's charge only becomes information when it plays a role in molecular structure or appears in a physical equation.

In computing, binary bits (0s and 1s) become information only when assembled into commands, images, or text. Similarly, the human brain compares sensory input with internal models to generate meaning—an act that transforms data into information.

While information is still pre-conscious and lacks creativity or autonomy, it forms the **second level of awareness**, where systems begin to act based on patterns and prior conditioning. It provides the structural foundation for higher-level awareness.

2.4 Human Awareness: The Emergence of Creativity and Will

At the fourth level, consciousness transcends mere information processing. Here, *meaning* and *intention* take center stage. Unlike previous levels that react or compute, human awareness enables **choice among possibilities**, the ability to **redefine goals**, and to **apply information against instinctual or biological norms**.

Humans can consciously risk their lives for ideas, fast voluntarily, or act against natural impulses. This level reveals consciousness as **an active force of will**, not just a reactive mechanism.

Humans also build tools beyond biological necessity: computers, rockets, gene-editing technologies. These reflect our ability not just to understand nature but to **rewrite its laws**. Thus, human consciousness becomes a **creator** of new meanings—art, philosophy, science, and even the notion of science itself emerges from this faculty.

Human awareness, then, transforms data into ideas and processing into intention. It marks a sharp boundary between humans and other conscious systems, revealing that consciousness is not merely a brain function, but a **dynamic process capable of reshaping reality**.

2.5 Cosmic Consciousness: The Source of Meaning, Data, and Creation

At the final level, consciousness is no longer dependent on biology, computation, or even time. *Cosmic consciousness* is the **underlying field of existence**—the source from which all data, meaning, and potential arise.

Unlike human consciousness, which derives meaning from data, cosmic consciousness **generates data as manifestations of pre-existing meaning**. It is the origin of order, direction, and possibility in the universe.

This level must exist for two reasons:

1. **To account for the limitless creative capacity of human consciousness**, which implies an infinite reservoir of potential meaning.
2. **To provide balance and alignment**, ensuring that free will—particularly human creative power—remains constructive rather than destructive.

Cosmic consciousness functions as a **non-personified field**: beyond instincts, fear, or self-interest. It operates only through resonance with the totality of existence.

2.5.1 Cosmic Consciousness and the Concept of God

We do not claim to define “God” per se, but cosmic consciousness provides a **scientifically and philosophically grounded model** for what many cultures refer to as God, Source, or Creator.

This field creates and governs reality through infinite frequencies. If a limited human mind—briefly connected to this field—can edit genes or build rockets, it stands to reason that the field itself holds unimaginable creative power.

But unlike traditional anthropomorphic deities, cosmic consciousness has no needs, anger, or desire for worship. Concepts like judgment, punishment, or sacredness become meaningless here—they’re **material projections on an immaterial field**.

In this model, the only true law is **existential frequency**. Every thought, intention, and action affect this frequency, which in turn determines one's position in the universe—not rituals, beliefs, or dogma. Heaven and hell are thus reframed as **natural outcomes of frequency alignment**. The more one harmonizes with this field, the higher the awareness. The less aligned, the deeper the dissonance.

In this sense, sacredness is not taboo or divine command—but **the resonance between self and truth**. In this state, fear, violence, and deceit disappear, replaced by clarity and unity.

3. Frequency of Consciousness: Definition, Importance, and Modeling

Across all defined levels of consciousness, one hidden yet unifying element is **frequency**. In this theory, consciousness is not a vague mental phenomenon nor solely a byproduct of biochemical reactions—it is a *frequency-based flow*, varying in intensity and quality depending on complexity, processing capacity, and autonomy.

We propose **consciousness frequency** as a metric to evaluate the quality of awareness in systems ranging from subatomic particles to the human brain.

3.1 Defining the Frequency of Consciousness

The frequency of consciousness is the rate at which a conscious system—simple or complex—generates interactions with data, information, and meaning. This oscillation reflects its capacity to process, interpret, and respond to inputs, and to produce internally generated meanings.

At lower levels (e.g., particles), this frequency manifests as automatic, context-free responses. In humans, however, it reaches levels capable of abstraction, creativity, and rewriting of natural patterns.

This frequency is shaped by three main factors:

- 1. Volume and diversity of incoming data**
- 2. Ability to process and convert data into meaningful structures**

3. Capacity for autonomous creation of meaning, independent of external inputs

The stronger these three traits, the higher the system's frequency of consciousness.

3.2 Quantifying the Consciousness Frequency Range

To better understand the spectrum, we propose a numerical estimate—not as a rigid metric but as a functional range useful for future studies.

Reference Point 1: Human Brain

Empirical neuroscience suggests the human brain performs around **10^{14} synaptic events per second**, based on neuron count and signal transmission rates. This serves as a **lower bound** for the frequency of human consciousness.

Reference Point 2: Cosmic Consciousness

Although direct access to the cosmic field is not currently possible, theoretical modeling places its processing and creative capacity at **around 10^{17} Hz**—consistent with the energy range of X-ray frequencies. This level likely supports nonlinear, timeless computation, and may represent the **upper threshold** of awareness.

Conclusion of Range

We define a spectrum of consciousness frequency extending from:

- **$\sim 10^0$ Hz** (subatomic reactivity)
- to **$\sim 10^{14}$ Hz** (typical human brain)
- up to **$\sim 10^{17}$ Hz and beyond** (cosmic consciousness)

This spectrum reveals:

- Every entity occupies a narrow band within this continuum.

- Our decisions, perception quality, and even future evolutionary paths reflect our current frequency.
- After death, consciousness does not “choose” where to go; it **returns to a level aligned with its frequency**—not to where it desires, but to where it *resonates*.

Call for Scientific Collaboration

While these estimates are based on available data and logical extrapolation, we invite researchers in physics, mathematics, neuroscience, and quantum computing to collaborate in refining the quantitative aspects of this model and building a **scientific dialogue on testable consciousness metrics**.

3.2.2 Computational Basis: Why This Range?

Using known parameters of the human brain:

- ~86 billion neurons
- ~7,000 synapses per neuron
- Average firing rate ~100 Hz

Estimated interactions per second:

$$86\text{B} \times 7,000 \times 100 \approx 6 \times 10^{15}$$

This supports the **lower limit** of human consciousness frequency.

With recursive brain architecture, parallel processing, and high-intensity cognitive states (e.g., meditation, peak creativity), this figure may **scale up to ~10¹⁷**, especially during moments of deep insight or profound mental clarity.

3.2.3 Frequency Bands and Corresponding Consciousness Levels

Level	Frequency Range (Hz)	Description
1. Subatomic Awareness	$10^0 - 10^4$	Elementary particle reactivity; pure data
2. Biological Awareness	$10^4 - 10^6$	Basic regulation in lifeforms; reflexes
3. Computational Awareness	$10^6 - 10^{13}$	AI, simple brains; data analysis without meaning
4. Human Creative Awareness	$10^{13} - 10^{16}$	Meaning-making, autonomy, abstract thought
5. Cosmic Consciousness	$10^{17}+$	Source of meaning, law, and creation

3.2.4 Factors That Raise Consciousness Frequency

👉 *Note:* These have been extensively covered in a separate article [Forghani, 2025a].

Here, we briefly list the key factors:

- Honesty and integrity
- Empathy and nonviolence
- Self-inquiry and independent thought
- Conscious regulation of instincts
- Creative meaning-making (philosophy, art, science)
- Deep meditation and mindfulness
- Philosophical contemplation of life, death, and existence
- Scientific and historical knowledge of consciousness

Each factor enhances the system's resonance with higher levels of awareness and promotes alignment with the cosmic field.

4. Reinterpreting Classical Concepts Through the Lens of Cosmic Consciousness

The Frequency Theory of Consciousness offers new clarity on longstanding religious, philosophical, and psychological terms—such as *soul*, *heaven and hell*, *sacredness*, and *free will*. These concepts have traditionally floated between science and myth: too vague for scientific validation, too central to be dismissed.

This section redefines these ideas not through faith or ideology, but through a structured and analyzable framework based on consciousness frequency.

4.1 The Soul: A Frequency-Based Redefinition

In religious traditions, the *soul* is often described as an invisible essence that survives after death. However, it typically lacks precise definition, and even in sacred narratives, it is often the **physical body**, not the soul, that suffers or is rewarded.

In this model, we define the *soul* as **a person's frequency signature**—shaped by thoughts, experiences, and choices over time. It is neither a metaphysical object nor a fixed essence, but a **dynamic pattern of frequencies** reflecting one's state of being.

This frequency pattern:

- Shapes the quality-of-life experience
- Influences post-death continuity
- Functions as a kind of *existential echo*, affecting future incarnations or states

Thus, the soul becomes not a mystical abstraction but a measurable pattern—transforming a vague concept into a **practical and testable structure**.

4.2 Heaven and Hell: States of Consciousness Frequency

Heaven and hell, commonly viewed as physical realms of reward or punishment, are reframed here as **frequency-based states**.

- **Heaven** represents high-frequency states: harmony, empathy, clarity, and alignment with truth
- **Hell** reflects low-frequency states: selfishness, suffering, dissonance, and inner turmoil

Rather than distant afterlife destinations, they are **natural outcomes of one's vibrational state**, both in life and beyond. No divine judgment is needed—only the mechanics of resonance.

4.3 Sacredness: Alignment, Not Worship

Traditional notions of sacredness imply prohibition, fear, or divine authority. In this model, **sacredness means high-frequency alignment with cosmic awareness**.

It is not about rituals or external symbols, but about **inner balance**, purity of intention, and detachment from base impulses. Sacredness arises naturally as one transcends selfishness, violence, and falsehood—and attunes to truth, compassion, and clarity.

Thus, sacredness becomes a **state of resonance**, not an imposed status or dogma.

4.4 Free Will and Determinism: A New Synthesis

In many religious systems, human action is seen as predetermined by divine will, which reduces individual responsibility. In contrast, this theory proposes a new synthesis:

- **Determinism** arises from our embeddedness in natural laws and frequency dynamics
- **Free will** emerges as we gain awareness of those laws and learn to choose actions with foresight

As awareness increases, so does the capacity to choose—not blindly, but wisely. Therefore, cosmic consciousness **liberates us from determinism**, not by magic, but by **informed, conscious alignment**.

5. Fundamental Questions Revisited Through the Frequency Theory of Consciousness

In this final section, we return to some of humanity's most persistent philosophical and scientific questions—those that have defied traditional explanations. We demonstrate how the Frequency Theory of Consciousness offers coherent, testable, and meaningful answers.

5.1 Does Consciousness Continue After Death?

Yes. In this model, consciousness persists as a **frequency signature** beyond the death of the physical body. It continues evolving based on the vibrational level accumulated during life. This continuation is not a "return" by choice, but a **resonance-based transition**: awareness can only enter a body or dimension that matches its frequency—ranging from low-frequency biological forms to high-frequency realms of pure awareness.

5.2 Why Are Humans Born with Different Capacities for Awareness?

Each body carries a baseline **biological frequency**, determined by its genetic and structural makeup. The consciousness that "enters" it does so

based on a compatible frequency match, shaped by prior existential trajectories. This model explains the diversity in intelligence, intuition, and learning ability without invoking randomness or moral judgment.

5.3 Can This Theory Offer a Rational Model of “God”?

Yes. The *Cosmic Consciousness Field* serves as a scientifically grounded concept of divinity: timeless, spaceless, and infinitely generative. This “God” is not a person or an authority but the **source of all vibration, meaning, and law**. It does not seek worship, does not judge, and is not separate from existence—it *is* existence at its purest frequency.

5.4 Can It Solve Global Crises?

Yes—if adopted collectively. Most global crises—wars, inequality, environmental collapse—stem from low-frequency patterns: greed, fear, ego. By shifting the value system from **material accumulation** to **conscious evolution**, societies can restructure themselves toward empathy, sustainability, and collective harmony.

This shift does not require belief—only **frequency elevation** through conscious living, education, and alignment with truth.

Conclusion

This paper introduces the Frequency Theory of Consciousness as a fresh lens to explore fundamental concepts such as the soul, God, life after death, and human potential. It transforms abstract metaphysical ideas into a **scientifically measurable framework**, capable of guiding both individual transformation and societal evolution.

Cosmic consciousness is no longer a poetic ideal or mystical abstraction—it is a **powerful tool for change**, allowing humanity to realize its full potential by tuning in to the true rhythm of existence.

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