Quantum Consciousness and Non-Human Intelligence: A Reformulated Framework

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Abstract

This paper proposes a theory-neutral formal framework designed to accommodate data that implicates consciousness in anomalous observer-linked phenomena, including structured accounts sometimes interpreted as involving alleged non-human intelligence.[1] Motivated by growing empirical reports in which observer phenomenology appears coupled to system behavior, the paper introduces an explanatory workspace that expands the standard quantum state space to include a phenomenal dimension.

Specifically, it augments the conventional Hilbert space $\mathcal{H}_{\text{physical}}$ with an orthogonal tensor factor $\mathcal{H}_{\text{phenomenal}}$, allowing conscious states to be structurally represented without reducing them to conventional observables.[2] The goal is not to offer a reductive theory of consciousness, but to supply a lawful representational space into which empirically grounded anomalies—such as psi effects, attentional modulation, or UAP-linked phenomenology—might coherently fit.[3]

The framework is grounded in an epistemic tradition articulated by Newton, Eddington, Russell, and Chomsky, all of whom emphasize the distinction between the structural apparatus of science and its ontological reach.[4] It does not seek to redefine physics, but to expand its structural vocabulary—offering a formal arena in which observer-linked anomalies may become empirically visible and testable.

[1]See U.S. Congress (2023); Barber et al. (2025); ODNI (2021).

[2]Compare with Barrett (2014); Stapp (2007); Hameroff & Penrose (1996) for other formalisms involving consciousness in quantum frameworks.

[3]On psi-related anomalies, see Bem & Honorton (1994); Mossbridge et al. (2014); Radin et al. (2012).

[4]Newton (1999); Eddington (1928); Russell (1927); Chomsky (2009).

Keywords: Consciousness, Quantum Mechanics, Psi Phenomena, Nonlocality, Russellian Monism, Panpsychism, Non-Human Intelligence

Introduction

The Hard Problem of consciousness—why subjective experience arises at all—remains unsolved not only in neuroscience and philosophy, but in the structure of physical theory itself. While our best accounts of matter describe interactions, symmetries, and informational constraints, none explain what it is like to be a system. Experience appears as a residue: something not entailed by physical law, yet evidently produced in at least one known case.[5]

While this framing is widely adopted in the philosophy of mind, it is not without critics. Illusionist and eliminativist positions, such as those defended by Dennett (1991) and Frankish (2016), argue that the apparent intractability of consciousness arises from cognitive error or misdescription. These views propose that phenomenal experience is an illusion produced by functional mechanisms, and that no further explanatory account is required. The framework presented in this paper does not refute such positions directly, but proceeds on the assumption that subjective experience is a structurally real feature of the world, and that its exclusion from physical law is an indicator of representational incompleteness rather than cognitive misfire.[6]

One interpretation of this explanatory gap is metaphysical: that consciousness is non-physical, emergent, or fundamental in ways that defy representation. Another, more tractable reading is formal: that our current physical models simply lack the representational resources to encode subjective states. If so, then the Hard Problem may be reframed—not solved, but relocated—as a symptom of structural incompleteness.

While functionalist and computational models increasingly succeed at modeling cognition, they have not—so far—explained why such processes are accompanied by subjective experience (Nagel, 1974; Searle, 1992). Whether this failure indicates

[5]Depending on which account of our epistemic situation is correct, it is possible that the explanatory theory of consciousness already exists. If the limits of what we can know about subjective experience are fixed by structural constraints—biological, informational, or formal—then the best available framework may already be in hand. If, however, those limits are elastic, then further theoretical refinement remains not only possible, but necessary.

[6]Some positions, notably illusionism (Frankish, 2016) and eliminative materialism (Dennett, 1991), reject the premise of the Hard Problem altogether, arguing that consciousness as we conceive it is a cognitive confabulation. The framework presented here does not contest that debate directly but proceeds on the working assumption that phenomenality has explanatory weight not exhausted by functional or third-person models.

a deeper theoretical incompleteness or simply reflects the current limits of human epistemic access remains an open question. On some views of our cognitive situation, we may already possess the best explanatory theory that is, in principle, available to us—even if it leaves the phenomenological dimension opaque. On other views, additional explanatory depth may be reachable through conceptual innovation or formal extension. The framework proposed here proceeds on the latter possibility: that our current models omit something that may yet be integrated into empirical science.

This paper explores a framework in which consciousness is treated as a formal coordinate: an orthogonal degree of freedom in the quantum mechanical state space. The proposal augments the standard Hilbert space $\mathcal{H}_{\text{physical}}$ with an experiential tensor factor, $\mathcal{H}_{\text{phenomenal}}$, allowing system states to instantiate both physical and phenomenological properties. This does not explain why consciousness exists. It offers a way to model its presence within a lawful system, rather than treating it as an inexplicable exception.[7]

The framework is motivated by two converging pressures. The first is philosophical: a longstanding absence of consciousness from the representational infrastructure of physical theory. The second is empirical: recent data and testimony associated with unidentified aerial phenomena (UAPs) suggest recurring observer-dependent effects—intentionality-linked correlations, attention-modulated responses, and structured experiential features—that resist representation in conventional physics.[8] These include not only psi-related anomalies but also reports in which phenomenology appears to modulate physical system behavior. Taken together, these pressures suggest that conscious states may not be epiphenomenal noise, but dynamically relevant variables excluded by fiat from current theory.

The aim of this paper is twofold. First, it offers a philosophical rationale for extending physical formalism to include consciousness—not as metaphysical speculation, but as a response to data that physical models cannot currently structure. Second, it proposes a model-theoretic workspace: a structural augmentation in which consciousness can be treated as a coordinate of statehood, allowing anomalous but coherent effects to be rendered empirically visible, testable, and ultimately falsifiable.

The claim is not that this model resolves the Hard Problem. It is that the problem may have been ill-posed from the outset—framed within a representational architecture that rendered its target invisible. A better theory may not dissolve the mystery, but it may finally make it tractable.

[7]The mathematical architecture of this extension—including basis specification and dynamic coupling operators—is developed in Brewer (2025).

[8]See Barber et al. (2025); U.S. Congress Hearings (2023); ODNI (2021).

Section 1 surveys the philosophical and scientific context motivating this extension, including the limitations of structural physicalism and the ambiguities of observer-dependence in quantum mechanics. Section 2 introduces the formal extension to Hilbert space and motivates it through representational incompleteness rather than ontological inflation. Section 3 reframes psi phenomena as testable signatures of phenomenal–physical coupling. Section 4 examines non-human intelligence reports as structured case material potentially indicative of $\mathcal{H}_{\text{phenomenal}}$ interaction. Section 5 addresses demarcation criteria and the scientific legitimacy of consciousness-related hypotheses. Section 6 outlines the broader implications of introducing a phenomenal coordinate into physical theory. Section 7 develops concrete experimental templates for testing subjective–objective coupling. Section 8 expands on specific empirical designs, such as observer-modulated interference and intentional dyadic entanglement. Section 9 articulates the methodological constraints and epistemic orientation required to treat consciousness as a scientific variable. Section 10 concludes with a reflection on the philosophical and empirical scope of this framework.

Throughout, this paper maintains a commitment to testability over speculation: it treats the integration of consciousness not as metaphysical advocacy, but as a generative move—one grounded in structured observations and guided by empirical constraint.

1 Philosophical and Scientific Context

1.1 The Hard Problem and Its Trajectory

The distinction between the "easy" and "hard" problems of consciousness, first articulated by Chalmers (1996), remains foundational to contemporary philosophy of mind. The so-called "easy" problems are not trivial—they are tractable. They concern functions such as perception, memory, language, and attention, all of which can be investigated using standard neuroscientific and computational methods. These problems admit mechanistic explanation. The Hard Problem, by contrast, asks why any of these functions are accompanied by subjective experience at all.

Although cognitive neuroscience has made significant progress in mapping the correlates and mechanisms of cognition, such explanations account only for functional structure—not for the presence of consciousness itself. No theory has yet closed the explanatory gap: why do neural processes give rise to qualia, rather than remaining entirely unconscious?

This question cannot be separated from the broader epistemic situation. Some accounts hold that we may already possess the best possible explanatory theory, and that the persistent sense of incompleteness reflects a cognitive illusion or a representational blind spot. On this view, consciousness may be naturalized in practice but not fully conceptualized in principle. Others argue that the gap signals a deeper incompleteness in physical theory itself—one that could, in principle, be addressed by new formal or conceptual tools.

The framework developed in this paper is motivated by the latter possibility. It does not assert that physicalism has failed, nor that consciousness lies outside the scope of science. Rather, it explores whether physics, as currently formulated, may be omitting a key structural element—one that could allow subjective experience to be formally integrated into physical theory. This opens the door to reconsidering consciousness not as an emergent byproduct, but as a fundamental parameter.

1.2 Russellian Monism and Dual-Aspect Theories

At the heart of Russellian monism is a deceptively simple claim: that physics describes the relational structure of matter, but remains silent on its intrinsic nature. What physics gives us, in this view, are formal patterns—mass, charge, spin—defined in terms of their roles in equations and experimental outcomes. But what these entities *are*, in themselves, is left unspecified. This silence is not a bug; it is a feature of physical theory as presently construed. Russellian monists suggest that consciousness may reside precisely in this silent interval (Goff, 2017; Strawson, 2006).

The position is motivated by what might be called the ontological asymmetry of explanation. Physical science has proven extraordinarily successful at modeling behavior, but this success has come at the cost of bracketed interiors. The contents of experience—what it is like to see red, or to feel grief—are not just unmeasured by physics; they are unmeasurable in principle, given its structural commitments. On a Russellian view, this is not grounds for eliminativism or dualism, but for reinterpretation: perhaps consciousness is not a late-emerging anomaly, but the intrinsic nature of that which manifests structurally in physical behavior.

This claim is metaphysically modest but conceptually ambitious. It does not assert that rocks or electrons have minds. Rather, it suggests that the metaphysical basis of matter may be consciousness-involving, and that the gap between mind and world reflects a limitation in our conceptual schema, not a bifurcation in being. If correct, this would underwrite a new unification: not by reducing mind to matter, or matter to mind, but by identifying both as aspects of a more fundamental base.

This line of thought connects naturally to dual-aspect monisms, which hold that mental and physical properties are two irreducible but interdependent ways of representing a common reality (Chalmers, 1996; Nagel, 1974). These views reject Cartesian dualism, but also resist reductive materialism. What they share with Russellian monism is the conviction that first-person and third-person perspectives do not conflict—they diverge because they track different kinds of access to the same metaphysical ground.

For present purposes, the appeal of Russellian monism lies in its compatibility with formal modeling. Unlike panpsychism proper, which often wanders into ontological overcommitment, Russellian monism does not require that every particle has consciousness, only that every physical state may correspond to some intrinsic character—and that conscious states may instantiate a special case of this general mapping. The framework proposed in this paper extends this idea: that the consciousness dimension, as introduced in quantum formalism, may serve as a formal placeholder for that otherwise-unspecified intrinsic character. Whether this placeholder is metaphysically complete is an open question; that it is mathematically coherent and empirically tractable is the minimal claim.

In short, Russellian monism offers a way to think about consciousness not as an external problem for science, but as an internal incompletion. It reframes the metaphysical silence at the heart of physics not as a failure, but as an opportunity—a space where subjectivity might naturally reside, and from which it might be formally modeled.

1.3 The Relegation Problem

The modern sciences were born not with a comprehensive ontology, but with a strategic restriction. In the seventeenth century, early natural philosophers drew a conceptual boundary between primary and secondary qualities—between the measurable properties of objects and the qualitative aspects of experience. Galileo's distinction, later sharpened by Descartes and Newton, laid the groundwork for physical theory by delimiting its subject matter: only those features that could be mathematized, quantified, or made tractable to measurement would count as legitimately "scientific." Color, taste, pain, and desire were classified as subjective projections—real only in the mind, not in the world.

This move was methodologically fruitful, but ontologically costly. It made the birth of modern physics possible by excluding consciousness from its domain. But the exclusion was not metaphysical—it was pragmatic. No argument was offered that subjective experience did not exist, only that it could not be part of the physics. The scientific revolution, in this respect, was not so much an epistemic illumination as a willed blindness to the interior. What resulted was a world picture in which everything could be described except the one thing we know most directly: that there is something it is like to be.

What I call the *relegation problem* is this: that consciousness was never refuted, only methodologically set aside, and that this decision—while generative—has structured physical theory in ways that now obscure its own omissions. The cost of that foundational move becomes increasingly visible as science turns its attention to the mind. We now find ourselves in the peculiar position of wielding theories that model the behavior of particles across galaxies but cannot say why the taste of mint feels the way it does.

Quantum mechanics reopens the problem from an unexpected angle. In classical physics, the observer was a passive witness; in quantum physics, the observer appears as a participant. The formalism suggests that the act of measurement—the process by which a quantum system yields a definite value—is not independent of the context in which it is observed. This is not mysticism; it is formal consequence. Bohr (1934) and Heisenberg (1958) understood this not as proof of consciousness-dependent reality, but as a sign that the boundary between system and observer was not ontologically sharp.

Later thinkers, including Wigner (1961) and von Neumann (1955), pushed the interpretation further. If the collapse of the wavefunction cannot be triggered purely by decoherence or environmental interaction, then some have argued it must terminate in a conscious observer. Though controversial, this proposal has not been decisively refuted. More importantly, it signals a return of consciousness to the scene of physical theory—not as a ghostly metaphysical add-on, but as a variable entangled with the act of knowing itself.

In this light, the relegation of consciousness was not an error, but a limitation. It enabled the rise of physics, but at the cost of excluding what may now be necessary to explain. The question this paper explores is whether that exclusion must remain, or whether the conceptual architecture of physics can be revised to accommodate the very phenomenon it once set aside.

1.4 Quantum Mechanics and the Observer

Quantum mechanics altered not only our understanding of matter, but our assumptions about observation itself. In classical physics, the observer is conceptually external: measurements reveal properties that were already determinate, merely awaiting detection. Quantum theory rejects this premise. According to the Copenhagen interpretation, the act of measurement does not merely disclose the state of a system—it participates in selecting it. Until measured, a quantum system exists in a superposition of possible states; observation resolves this indeterminacy, forcing the system into one definite outcome (Bohr, 1934).

This structure introduces what might be called a formal asymmetry: while the quantum formalism is linear and deterministic in the evolution of the wavefunction, it becomes non-linear and stochastic at the point of measurement. That rupture—between unitary evolution and wavefunction collapse—raises an unresolved question: what, exactly, constitutes a measurement?

In most interpretations, measurement is modeled as interaction with a macroscopic system: a particle hits a screen; a detector clicks. But this move quietly defers the problem. If all physical systems are governed by quantum laws, then even detectors are just extended quantum systems. So what breaks the chain? What grounds the transition from probabilistic amplitude to actual outcome?

Wigner (1961) and von Neumann (1955) famously proposed that consciousness terminates the chain. Their suggestion was not that consciousness is supernatural, but that it may be the only non-quantized system capable of generating a definite result. In this view, subjective awareness is not external to physics—it is the final condition for the appearance of determinate facts. Though many physicists have since rejected or marginalized this proposal, no consensus alternative has emerged that resolves the measurement problem without ambiguity.

This ambiguity points to a deeper possibility: that the observer in quantum mechanics is not merely an instrumental idealization, but a metaphysically relevant feature of the formalism. If consciousness plays a constitutive role in the collapse process—or more broadly, if it influences the way quantum information becomes actual—then it may not be sufficient to treat it as an external epistemic agent. It must be internalized as part of the system's ontological architecture.

Of course, this suggestion is contentious. Many interpretations of quantum mechanics—many-worlds, pilot wave, relational quantum mechanics—attempt to resolve the measurement problem without invoking consciousness. But none of these approaches has displaced the foundational tension. What remains consistent is the unique role of the observer across interpretations: whether as decoherence environment, branching point, or informational reference frame, the observer is never merely passive.

This paper does not presume that consciousness causes wavefunction collapse. But it takes seriously the idea that subjectivity may be a structural component of the quantum world—one that has been formalized away, but not eliminated. If so, then extending the quantum formalism to include a consciousness parameter is not metaphysical indulgence, but a testable hypothesis rooted in the structure of the theory itself.

1.5 Formal Incompleteness and Representational Gaps

If quantum mechanics assigns a central role to measurement—and if measurement is, in some interpretations, irreducibly bound to consciousness—then the current formalism is epistemically reliant on a phenomenon it does not formally include. This presents a conceptual asymmetry: the theory uses consciousness as an operational boundary condition, but excludes it from its representational resources. The wavefunction collapses upon observation, but the observer has no coordinate within the Hilbert space.

This asymmetry does not indicate empirical failure. Quantum theory remains unmatched in its predictive accuracy. But the absence of consciousness from the formalism raises the possibility of what might be called *formal incompleteness*: a gap in the theory's capacity to describe all the elements that it functionally presupposes. If the observer is causally or structurally implicated in the resolution of quantum indeterminacy, then a complete formalism ought to include parameters that can model this role.

What kind of extension would satisfy this criterion? It must not add arbitrary metaphysical baggage, nor should it violate the internal consistency of the theory. It should preserve the successful empirical structure of quantum mechanics, while addressing the unrepresented dimension of phenomenological presence. The next section proposes one such extension: the addition of a consciousness degree of freedom to the Hilbert space—a new axis in the state space that encodes experiential structure alongside physical observables.

1.6 Extending the Hilbert Space

Quantum mechanics is constructed upon a formal state space: the Hilbert space. This space serves as the arena in which the possible states of a physical system are represented, evolved, and measured. The structure is mathematically rigorous: state vectors evolve unitarily under the Schrödinger equation and yield probabilistic predictions upon projection. Every observable corresponds to a Hermitian operator, and the formalism is complete with respect to the behavior of systems—so far as it is defined.

But completeness in this technical sense does not guarantee representational adequacy. As argued in the preceding section, the formalism does not currently account for the phenomenon of consciousness, despite being, in some interpretations, operationally dependent upon it. If consciousness plays a constitutive role in measurement—or if it is implicated in the transition from amplitude to actuality—then its absence from the theory is not merely philosophical. It reflects a structural gap in the representational architecture itself.

To address this gap, I propose a principled extension of the Hilbert space: an additional degree of freedom corresponding to intrinsic experiential structure. This is not an ad hoc metaphysical addition, but a formal augmentation motivated by the theory's own asymmetries. The proposal introduces a new coordinate axis, orthogonal to all existing observables, which encodes phenomenological presence without altering the empirical dynamics of physical observables.

This extension can be expressed as a tensor product decomposition:

$$\mathcal{H}_{\text{total}} = \mathcal{H}_{\text{physical}} \otimes \mathcal{H}_{\text{phenomenal}}$$

[9]

Here, $\mathcal{H}_{\text{physical}}$ denotes the conventional Hilbert space associated with the system's physical degrees of freedom, while $\mathcal{H}_{\text{phenomenal}}$ represents a structured space of experiential states. The role of $\mathcal{H}_{\text{phenomenal}}$ is not to replace physical dynamics, but to supplement the formal structure with coordinates corresponding to qualitative presence—subjective states that are not, and cannot be, recovered from the physical formalism alone.

Importantly, the proposal remains agnostic on the metaphysics of consciousness. It does not assert that experience is fundamental, nor that all systems are conscious. It posits only that systems which do instantiate consciousness—whether human, artificial, or otherwise—may be characterized by states that occupy this additional space. In this way, the extension allows conscious systems to be represented in a unified formal language alongside non-conscious ones, without conflating or reducing their domains.

The resulting framework does not presume that $\mathcal{H}_{\text{phenomenal}}$ is populated in all contexts. It permits the existence of unoccupied or unactivated experiential dimensions, just as standard quantum mechanics permits null values for uninstantiated observables. What matters is that the space exists as part of the theoretical structure—ready to be empirically coupled when required.

It is important to distinguish between a framework and a mechanism. The model proposed here does not specify how phenomenological states arise or evolve, nor does it posit causal operations within $\mathcal{H}_{\text{phenomenal}}$. It offers a representational structure within which conscious and non-conscious systems can be jointly modeled, should

[9] Integrated Information Theory (IIT), for example, assigns a quantitative structure to consciousness based on causal complexity, but does not provide a formal embedding into quantum mechanics or physical law. The present model aims to complement such theories by offering a formal space in which phenomenality might be lawfully represented.

empirical phenomena require such modeling. The claim is architectural, not dynamical: that current formalisms lack the dimensional scope to encode certain correlations plausibly linked to conscious systems.

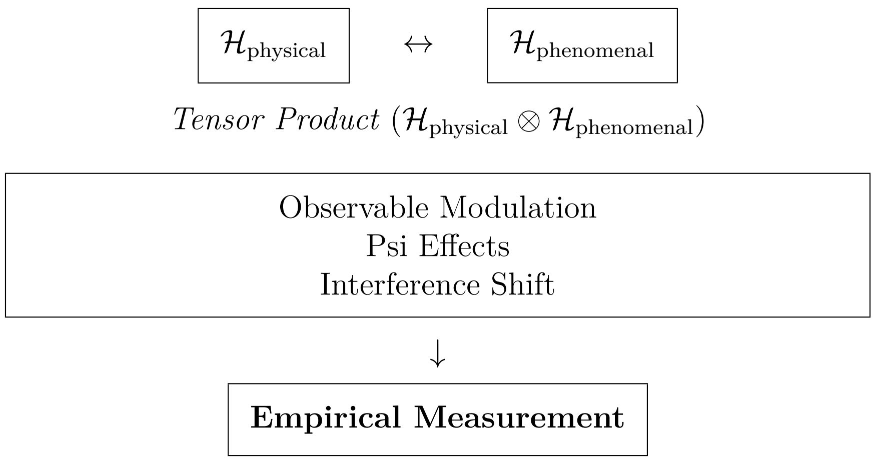

Figure: Representational schema of the extended quantum state space. The system is modeled as occupying a composite Hilbert space, $\mathcal{H}_{\text{physical}} \otimes \mathcal{H}_{\text{phenomenal}}$, allowing for the lawful inclusion of subjective states. Observable modulations—such as psi-correlated effects, attentional interference shifts, or anomalous intention couplings—are treated as emergent from interactions across this extended structure. The framework predicts that these interactions may have empirical consequences observable under defined conditions.

By formalizing a consciousness dimension within quantum theory, I am not introducing metaphysical opacity. I am proposing a repair: one that treats subjectivity as a representable dimension of physical systems, rather than as an inexplicable boundary condition. Whether this extension yields testable predictions will depend on how it is coupled to phenomena. That empirical question is the focus of the sections that follow.

2 Consciousness as a Coordinate: From Formalism to Phenomena

The argument for extending Hilbert space with an orthogonal consciousness dimension is not metaphysical flourish—it arises from the internal tensions within our best physical theories and the persistent appearance of phenomena that resist representation within those theories. This section clarifies the representational motivations for such an extension and introduces the empirical case phenomena that make the proposal more than philosophical speculation.

2.1 From Structural Incompleteness to Representational Need

Standard quantum mechanics encodes observables, system states, and measurement interactions within a formal Hilbert space $\mathcal{H}_{\text{physical}}$. Yet consciousness—central to the measurement process—appears only indirectly, if at all. Decoherence accounts for classicality, but not for why or how a particular outcome is experienced. This is not a minor omission. It is a formal exclusion of the very variable most critical to the act of observation.

The extension proposed here adds a structured experiential manifold, $\mathcal{H}_{\text{phenomenal}}$, such that the full system state is defined not only by its physical configuration but also by its occupancy in a phenomenal coordinate. This permits formally representing correlations between subjective states and physical observables without reducing one to the other. Consciousness is not "causing" collapse in the crude sense—it is a dimension along which system evolution unfolds, one that has been neglected in prior formalism.

This move aligns with recent interest in theories treating consciousness as ontologically real and potentially structured—e.g., in Integrated Information Theory, Orch-OR, or panpsychist variants of Russellian monism—but departs by placing such structure into the formal backbone of physics rather than treating it as an emergent epiphenomenon.

2.2 Phenomenal-Physical Coupling and the Case Phenomena

If $\mathcal{H}_{\text{phenomenal}}$ is real and coupled to $\mathcal{H}_{\text{physical}}$, then we should expect certain phenomena to reflect correlations not predicted by physical parameters alone. The empirical literature—particularly parapsychological data, anomalous cognition reports, and structured UAP case phenomena—presents a diverse but patterned set of such correlations. These are not yet claims of new physics; they are invitations to test whether such coupling improves explanatory coherence.

We may categorize the relevant phenomena into three classes:

(i) Observer-correlated outcome modulation: Studies in micro-PK (psychokinesis) and presentiment suggest that emotionally or attentively loaded states may subtly shift outcome distributions in quantum or chaotic physical systems. For instance, double-slit experiments and random event modulation trials report small but statis-

tically significant deviations when human subjects direct attention or intention at a system.

(ii) Shared phenomenological entanglement: Ganzfeld telepathy protocols, paired physiological coherence, and intention-based dyadic protocols suggest the possibility of lawful covariation between phenomenological states across individuals, particularly under controlled conditions. These may reflect cross-system coupling in $\mathcal{H}_{\text{phenomenal}}$ analogous to entanglement in $\mathcal{H}_{\text{physical}}$.

(iii) Systems exhibiting phenomenally-coupled behavior: Structured reports of UAPs describe behaviors not merely as violations of classical physics—e.g., trans-medium travel, inertia-free acceleration, sustained lift without propulsion—but as responsive to conscious attention, proximity, or even intention. These patterns suggest not merely advanced technology but interaction with systems able to navigate or manipulate $\mathcal{H}_{\text{phenomenal}}$, thereby producing effects interpretable as intentional or consciousness-responsive.

The aim here is not to validate these claims wholesale, but to observe that they form a coherent class under the proposed framework. These phenomena, long scattered across parapsychology, anomalistics, and aerospace reporting, gain representational unity when reinterpreted as phenomenally modulated phenomena.

In this framing, the empirical anomalies are not outliers to be explained away, but signals pointing to a representational gap in our formal theory—a gap that $\mathcal{H}_{\text{phenomenal}}$ is designed to close.

2.3 Activation Criteria and Ontological Commitments

This framework is not grounded in any fixed metaphysical theory of consciousness. It is instead motivated by a structural concern: that the representational apparatus of physical science may lack the capacity to encode phenomenological presence. This is not a novel claim. It reflects a lineage that includes Galileo, Newton, Eddington, and Russell—thinkers who emphasized the gap between mathematical structure and intrinsic nature.

Newton, for instance, deliberately refrained from speculating about the ontological substance of matter in the *Principia Mathematica*, preferring to articulate a mathematically consistent theory of observable dynamics. Eddington and Russell later extended this humility into a structuralist philosophy of science, one that acknowledges that physical theory may describe how things relate, without explaining what things are. In a similar vein, Noam Chomsky has drawn attention to the often-overlooked distinction between physical science and the philosophical thesis of physicalism—arguing that scientific inquiry is downstream of broader metaphysical assumptions.

This proposal inherits that epistemic caution. It does not assume that all systems instantiate consciousness, nor does it assert that consciousness is ontologically fundamental. It simply maintains that, given the class of empirical anomalies now under discussion—including psi studies, certain neurophenomenological effects, and anomalous cognition associated with UAP encounters—an extended formalism may be warranted.

The only ontological commitment made here is to the existence of observational data that implicates conscious systems in structured, potentially lawful interaction patterns. Recent U.S. congressional hearings have foregrounded testimony from military and intelligence personnel describing correlations between phenomenological states and anomalous physical responses, often involving unidentified aerial phenomena (U.S. Congress, 2023). Representative Anna Paulina Luna emphasized the evidentiary seriousness of such reports. The *Skywatcher Discovery Framework* (Barber et al., 2025) further formalizes these observations by presenting tiered analytic protocols that track signal coherence between subjective states and sensor-detected anomalies. Additional technical reports (ODNI, 2021; SCU, 2020) reinforce the call for an expanded scientific vocabulary capable of accommodating these reports.

In this sense, the framework proposed here is not a metaphysical doctrine. It is a representational hypothesis: a neutral scaffold upon which lawful relationships involving consciousness might be modeled.

This proposal adopts the same modest posture. It does not posit that all systems instantiate phenomenal states. Nor does it claim that consciousness is ontologically fundamental. It simply observes that, given current explanatory gaps—particularly in consciousness, psi phenomena, and observer-dependent effects in quantum mechanics—there may be value in exploring whether the current representational formalism is incomplete.

The proposed framework introduces a phenomenal state space, $\mathcal{H}_{\text{phenomenal}}$, but does not presume that all systems occupy it equally. Conscious systems instantiate non-null vectors in this space only under specific informational conditions. These conditions may involve global integrative capacity, recursive self-modeling, or the coherent maintenance of attentional or intentional states—features plausibly aligned with known neurocognitive architectures.

In this sense, $\mathcal{H}_{\text{phenomenal}}$ may exist in a latent or unpopulated state in systems that lack sufficient complexity, and only becomes dynamically relevant when those thresholds are crossed. The model thereby avoids committing to panpsychism, while also sidestepping emergence as a brute explanatory gap. It treats activation not as a metaphysical toggle but as a formal structure contingent on empirical thresholds.

This view also clarifies the ontology: $\mathcal{H}_{\text{phenomenal}}$ is always part of the total tensor product space, but its occupation is conditional. Its inclusion in the theory ensures representational completeness, regardless of whether it is active in any given case.[10]

My proposal to extend Hilbert space should not be mistaken for a metaphysical postulate about the existence of a consciousness dimension. Rather, it is a representational hypothesis: a structural model in which phenomenological variables—currently excluded from physical theory—can be encoded in a lawful, testable manner. The model is neutral with respect to ontology and commits only to the view that current formalisms may be representationally incomplete.

2.4 Distinctions: Avoiding Overreach While Addressing Gaps

The extended Hilbert space framework proposed here aims to address specific representational asymmetries in quantum theory—not by metaphysical fiat, but through formal augmentation. In doing so, it becomes necessary to distinguish this approach from several adjacent frameworks whose epistemic commitments, rhetorical tone, or ontological assumptions diverge in significant ways.

Against Metaphysical Overreach (Byrne): Frameworks such as Byrne's often gravitate toward ontological dualism or non-physicalist theses, treating consciousness as metaphysically irreducible. While this honors the ineliminability of experience, it risks severance from empirical testability. The present proposal maintains neutrality on the metaphysics of consciousness. It advances no claims regarding the intrinsic nature or substance of experience. Instead, it treats observer-linked anomalies—including psi effects, quantum measurement asymmetries, and structured reports of anomalous cognition—as potential indicators of representational omission. The addition of $H_{\text{phenomenal}}$ is not a metaphysical assertion, but a structural repair.

Beyond Empirical Anomalism (Radin): Radin's empirical work—particularly his double-slit interference experiments—has yielded statistically significant deviations that continue to provoke interest. However, these findings are often presented independently of a formal theoretical context, leaving them vulnerable to charges of statistical opportunism or epistemic exceptionalism. The present framework instead embeds such effects within a lawful model, interpreting them not as isolated anomalies but as potential empirical signatures of phenomenal–physical coupling. Psi is

[10] For the formal dynamical treatment, including coupling Hamiltonians between $\mathcal{H}_{\text{physical}}$ and $\mathcal{H}_{\text{phenomenal}}$, see Brewer (2025), *On the Foundational Primacy of Consciousness*.

not assumed; it is hypothesized as a regularity emergent from a structurally enriched formalism.

Departing from Reductive Conservatism (G. C. Williams): G. C. Williams's gene-centric model exemplifies methodological parsimony and has shaped the epistemic boundaries of explanatory rigor across the sciences. Yet that same conservatism has contributed to a climate in which consciousness—lacking a mechanistic substrate—has been sidelined from serious theoretical treatment. The framework advanced here shares Williams's caution, but diverges in its reading of observer-linked anomalies: not as violations of reductionism, but as symptoms of representational insufficiency. Extending the Hilbert space to include phenomenal coordinates is not an ontological indulgence—it is a structurally motivated move toward closure.

In all three cases, the framework maintains epistemic modesty. It does not claim more than is warranted by the structural asymmetries it seeks to address. But it does propose that phenomena long considered marginal may, in fact, be diagnostic of a modeling space that is incomplete—not metaphysically confounding or statistically spurious, but formally underserved.

3 Psi Phenomena and the Consciousness Coordinate

While claims surrounding psi phenomena remain empirically and philosophically contested, the statistical recurrence of small but structured deviations across diverse methodologies invites representational treatment—irrespective of one's metaphysical priors. The aim here is not to adjudicate the reality of psi, but to consider whether such anomalies might gain explanatory traction within an expanded formal framework.

If consciousness occupies a formally structured dimension within physical theory, then systems that instantiate conscious states may interact in ways not captured by conventional observables. The most widely studied and controversially reported class of such interactions is psi phenomena. These include telepathy, precognition, psychokinesis, and related effects—phenomena that, though often excluded from mainstream science, have been explored in controlled experimental contexts for over a century.

The aim here is not to assert the reality of these effects in advance, but to examine whether the proposed framework offers a coherent space in which such reports could be meaningfully formalized and tested. Specifically, the hypothesis is this: if conscious systems are entangled or coupled in $\mathcal{H}_{\text{phenomenal}}$, then outcome distributions, behavioral correlations, or system-level modulations may emerge that appear anomalous when viewed solely through $\mathcal{H}_{\text{physical}}$.

Empirical data inviting psi explanation remains controversial, but it is not absent. Meta-analyses of ganzfeld telepathy studies, presentiment experiments, and random event modulation trials report consistent deviations from chance across large datasets. Critics rightly highlight replication failures, methodological concerns, and publication bias. Yet the robustness of these effects across differing paradigms suggests that dismissal without formal modeling may be premature.[11]

Among the psi domains, the most promising for empirical investigation are those with structured statistical results over large datasets—such as ganzfeld telepathy, presentiment responses, and random event modulation under intentional focus. These effects exhibit consistent though small deviations from chance, have been subject to multiple meta-analyses, and are methodologically mature enough to support further testing under this framework. By treating observer state as an experimental variable rather than a nuisance factor, the model repositions these effects as testable hypotheses.

Within the extended Hilbert space framework, such effects need not imply causal violations or information transfer outside light cones. They may instead reflect lawful correlations between states that are entangled in $\mathcal{H}_{\text{phenomenal}}$ but decoupled at the level of classical observables. For example, changes in a participant's attentional coherence or emotional valence might modulate the probability distributions of entangled systems—effects observable only when subjective state is treated as a variable.

This model does not assert that psi effects exist. It asserts only that if they do, their lawful manifestation would be more coherently describable within a theory that treats consciousness as an embedded degree of freedom rather than an external observer. Such a theory not only accommodates psi phenomena; it provides a testable structure within which they may be replicated, falsified, or refined.

The critical transition, then, is from interpretation to experimentation. If specific manipulations of subjective state produce consistent statistical shifts in outcome distributions across diverse systems, this would provide empirical traction for the coupling hypothesis—and thus for the extension of Hilbert space itself.

[11]See also Alcock (2003) and Hyman (1989) for critical appraisals of psi research and discussions of methodological bias.

4 Anomalous Cognition and the Possibility of Non-Human Intelligence

Beyond psi effects lies a more controversial class of reported phenomena: anomalous cognitive interactions suggestive of responsiveness to observer intention, attention, or affect. These include structured accounts of unidentified aerial phenomena (UAP), close-encounter cases, and information transfer events that appear correlated with subjective state. While their ontological status remains unsettled, such phenomena may exhibit interaction profiles inconsistent with standard physical systems and therefore merit investigation within a framework that treats consciousness as a formal variable.[12]

What makes these cases relevant to the present framework is not their exoticism, but their apparent entanglement with human cognition. Witnesses report behaviors that include responsiveness to attention, intention, proximity, and emotional state—behaviors suggestive not merely of technological sophistication, but of an entity or system operating through or within consciousness-modulated channels.

If $\mathcal{H}_{\text{phenomenal}}$ describes a real and navigable aspect of physical systems, then such patterns may be reframed as the signature of systems capable of navigating this space. In this interpretation, UAP maneuvers that appear discontinuous, inertia-free, or transmedium may not reflect violations of physics, but operations at a layer of reality that interacts only obliquely with $\mathcal{H}_{\text{physical}}$. The "strangeness" of the phenomenon is then a consequence not of deception or hallucination, but of interaction between ontologically asymmetric systems.

Further, these phenomena often include a cognitive overlay: impressions of intentionality, communication, or consciousness presence without standard sensory mediation. This has been interpreted variously—as misperception, projection, or psychic displacement—but under the extended Hilbert framework, such experiences may represent lawful entanglement with a consciousness-active system. Reports of information transfer, mental engagement, or symbolic saturation (e.g. dream-like experiences, hyperreal vision states) would not be evidence of external invasion, but of inter-system coupling across representational spaces.

This does not license ontological inflation. It does not confirm the existence of extraterrestrials, extra-dimensionals, or disembodied minds. It simply observes that a class of structured phenomena—if accurately reported—demonstrate behavioral properties more consistent with a theory that includes $\mathcal{H}_{\text{phenomenal}}$ than one that

[12] This section treats NHI-related phenomena not as evidence of specific ontologies, but as structured case data. The aim is to assess whether their interaction profiles invite formal features not present in existing physical models, including sensitivity to observer state.

excludes it. This recategorization shifts the burden from explaining "what they are" to understanding "how they manifest."

From an experimental perspective, this suggests a new avenue for test design: not to capture the anomalous object, but to characterize the conditions under which anomalous coupling arises. Attention-coherence experiments, affect-modulated response tracking, and dual-state observer designs may be able to formalize aspects of these phenomena under controlled conditions. The anomalous becomes scientifically admissible not because it is believed, but because it is made conditionally observable within a formal system.

It's noteworthy to explicitly state that this section does not presuppose that non-human intelligence exists in any determinate form. It assumes only that a subset of structured case reports involve anomalous interaction profiles—particularly those that appear contingent on observer cognition—and that such profiles may be more parsimoniously described within a representational space that includes subjective state. The framework therefore treats these reports not as evidence of ontology, but as boundary data for modeling.

In this context, the NHI question becomes not "what is it?" but "what does its interaction profile tell us about the space of representable experience?" If we take consciousness seriously as a coordinate in physical law, then the edge-cases of interaction may be precisely where the most information resides.

5 Philosophical Constraints and Scientific Testability

For any theory proposing an expansion of physical law to include consciousness, two immediate concerns arise: first, whether it lapses into metaphysical inflation or unfalsifiability; and second, whether its empirical commitments can be made precise enough to qualify as scientific hypotheses. This section addresses both concerns by framing the extended Hilbert space model in terms of philosophical constraints and testable claims.

The framework proposed here does not begin with metaphysical assertions about consciousness. It begins with formal asymmetries in existing physics—namely, the operational role of the observer in quantum measurement, and the absence of any corresponding variable or structure in the formalism. The addition of $\mathcal{H}_{\text{phenomenal}}$ is therefore not a metaphysical move, but a formal repair: a representational extension designed to model correlations that are otherwise invisible to theory.

This distinction is critical. The theory does not claim that consciousness causes wavefunction collapse, nor that mind precedes matter. It claims only that, if consciousness is implicated in the dynamics of physical systems—as many interpretations of quantum mechanics imply—then the structure of theory should reflect that implication in a principled, testable way.

What, then, would testability look like? The key criterion is differential prediction. If systems that are identical in $\mathcal{H}_{\text{physical}}$ but different in $\mathcal{H}_{\text{phenomenal}}$ exhibit distinguishable empirical outcomes, then the theory makes a falsifiable claim. For instance: if attentional state, affective coherence, or intentional focus modulate the statistical behavior of quantum systems, and these effects can be replicated and scaled with observer variables, then the presence of a consciousness coordinate becomes an explanatory resource rather than a metaphysical ornament.

Conversely, if no lawful correlations between subjective variables and physical outcomes can be found—despite methodologically rigorous testing—then the theory's core postulate would be empirically undermined. In this sense, the model is vulnerable to disconfirmation: it makes conditional, quantitative, and falsifiable predictions.

Philosophically, this positioning aligns with a modest naturalism: one that accepts experience as a real feature of the world, subject to structured inclusion in theory, but does not grant it ontological primacy. It avoids dualism by embedding consciousness in a shared formal structure with matter, but resists reductionism by preserving distinct degrees of freedom.

This balance is fragile, and it must be maintained. If the theory is to avoid the fate of earlier consciousness models—either dismissed as untestable or absorbed into non-explanatory metaphysics—it must adhere to constraints: internal coherence, empirical openness, and parsimony of commitment. The addition of $\mathcal{H}_{\text{phenomenal}}$ is justified not because it explains more, but because it allows what is otherwise excluded to be described, modeled, and potentially understood.

Science progresses not only by solving problems, but by reframing what counts as a legitimate object of inquiry. If consciousness is to be brought inside the boundary of theory, it must be on the same terms as every other variable: by what it predicts, constrains, or clarifies. The extended Hilbert space model aspires to earn that place—not by assumption, but by demonstration.

6 Implications for Theory and Experiment

This section adopts a layered approach. It begins with a structural articulation of the framework's predictions and constraints, and then examines selected experiential reports whose features—though not evidentially conclusive—may express patterns compatible with the proposed phenomenal coordinate.

The proposal to augment quantum theory with a consciousness coordinate opens a wide spectrum of both theoretical and empirical avenues. This is not merely a metaphysical gesture or an ontological inflation—it is a structural hypothesis about representational insufficiency in our existing models.

In standard formulations, Hilbert space encodes the possible states of a quantum system and the observables that act upon them. But no formal element within $\mathcal{H}_{\text{physical}}$ corresponds to the first-person structure of the observer, despite the centrality of observation in quantum measurement. This asymmetry—between what is formally represented and what is functionally required—suggests an architectural gap, not a mystical residue. Adding $\mathcal{H}_{\text{phenomenal}}$ is thus proposed not as a metaphysical addition, but as a completion of representational geometry.

This carries downstream consequences. If subjective states are structurally encoded within the total state space, then they may participate in lawful dynamics. Their exclusion is no longer a neutral omission—it becomes a variable whose absence may explain persistent anomalies, such as observation-modulated quantum effects (Radin et al., 2012), failure of decoherence closure (Stapp, 2007), or observer-based entanglement patterns (Tressoldi, 2011).

From a theoretical standpoint, this move resonates with earlier expansions of the state space. In gauge theory, for example, additional degrees of freedom are introduced to ensure local invariance under symmetry operations. In quantum field theory, vacuum expectation values are encoded into formal structure, even if unpopulated in specific systems. Likewise, $\mathcal{H}_{\text{phenomenal}}$ may exist latently in non-conscious systems, becoming dynamically relevant only under conditions of experiential structure.

Experimentally, this opens a path toward operationalizing subjectivity without collapsing into mysticism. If conscious states correspond to measurable modulations in observable distributions—when all else is held constant—then those states become variables of scientific interest. This shifts the discourse from what consciousness "is" to what it "does" in relation to the total quantum system.

The remainder of this paper focuses on the empirical design consequences of that shift: how such states might be measured, what phenomena they might modulate, and how to distinguish lawful patterns from interpretive noise. These are not questions of philosophical consensus, but of controlled interference.

7 Experimental Protocol Templates

The case material examined here—including CE5 claims and structured UAP reports—is not treated as definitive evidence, but as theoretically suggestive. These data points, while epistemically provisional, exhibit recurring structure and experiential coherence. The proposal is that such patterns may reflect lawful phenomena rendered anomalous only by the limits of current formalism.

To ensure falsifiability and scientific traction, the framework requires rigorous empirical designs. One candidate experiment involves a modified double-slit apparatus, in which human participants attend to one path while blind to its outcome. Key features include:

- **Sample Size:** $N > 1{,}200$, based on prior power analysis (Cohen's $d \sim 0.2$).
- **Blinding:** Triple-blind: neither participant, experimenter, nor analyst knows condition assignments.
- **Pre-registration:** Protocols pre-registered on OSF or a similar platform.
- **Measurement:** Interference pattern shift quantified via fringe contrast, compared across conditions.
- **Analysis:** Bayesian sequential design with stopping criteria for Bayes Factor > 10.

The aim is not merely to detect anomalous patterns, but to assess whether outcome distributions covary with internal states defined phenomenologically (e.g., attentional coherence, emotional valence).

In cognitive science, this model provides a potential bridge between neurocomputational correlates of consciousness and the intrinsic character of subjective states. If $\mathcal{H}_{\text{phenomenal}}$ captures dimensions of experience not reducible to firing patterns or algorithmic behavior, then we are no longer limited to third-person mappings. This opens space for formalizing subjective reports as coordinates in a mathematically tractable space—without abandoning empirical rigor.

In neuroscience, one implication is that phenomenal states may correspond not merely to neural activations, but to a system's position within a higher-dimensional manifold—its occupancy in $\mathcal{H}_{\text{phenomenal}}$. This invites a rethinking of what counts as a "conscious state" neurologically, potentially reorienting analysis from network dynamics alone to dynamical embeddings across two coupled Hilbert spaces.

In artificial intelligence, the implications are profound. If consciousness arises not from information processing per se, but from coupling with $\mathcal{H}_{\text{phenomenal}}$, then the distinction between functional mimicry and phenomenal instantiation becomes formally describable. It may be that no architecture, however sophisticated, is conscious unless it accesses or generates states in this expanded space. This opens a principled path for distinguishing artificial minds from artificial agents.

8 Experimental Designs and Empirical Pathways

The most immediate challenge is empirical: how does one design experiments that are sensitive to variables in $\mathcal{H}_{\text{phenomenal}}$?

One candidate domain is observer-modulated quantum decoherence. Experiments in which the attentional state or emotional coherence of a subject is varied while monitoring quantum-level outcomes—e.g., in double-slit interference patterns, Bell test violations, or weak measurement contexts—could test whether outcome probabilities shift with first-person parameters. Prior studies (Radin et al., 2006; Radin et al., 2012; Bierman, 2003) suggest such effects may be present, though rigorous replications remain scarce.

Another design involves dyadic entanglement under intentional coupling. If two participants focus sustained attention or affective intention toward each other (or a shared object), and are monitored via entangled systems—e.g., photon pairs, EEG/MEG coherence, or spontaneous physiological synchrony—then anomalous correlations might indicate entanglement at the $\mathcal{H}_{\text{phenomenal}}$ level (Jahn & Dunne, 1987; Tressoldi, 2011; Storm et al., 2010).

A third approach involves longitudinal studies of conscious modulation. If subjective fluctuations influence randomly evolving quantum systems, those influences might be modeled as coupling phenomena—suggesting periodic activation in $\mathcal{H}_{\text{phenomenal}}$ (Mossbridge et al., 2014; Bem & Honorton, 1994).

In all cases, these are not mere repackagings of anomalous psychology. They are formal proposals about how a representational extension to quantum theory might be made visible in controlled, observable effects.

9 Methodology and Epistemic Orientation

Scientific legitimacy depends not only on testability, but on the clarity of what is being tested. This framework permits falsifiable hypotheses: if no correlation is ever found between subjective states and quantum outcomes—under tightly controlled and diversified designs—then the model's core predictions will have failed (Hyman, 1989; Alcock, 2003). It also invites rigor in operationalizing subjective variables, blinding protocols, and statistical power. The presence of phenomenological coordinates does not exempt the investigator from the burdens of science.

However, this orientation also suggests that the traditional boundary between "first-person" and "third-person" science may no longer be methodologically neutral. If $\mathcal{H}_{\text{phenomenal}}$ is real, then subjective states are not confounds, but couplings. Rigor does not require eliminating the observer; it may require modeling the observer as part of the system (Wigner, 1961; von Neumann, 1955).

This suggests an epistemic evolution, not a metaphysical revolution. Consciousness is not outside science—it is inside a version of science not yet fully constructed (Chalmers, 1996; Tart, 2009). What this framework offers is not the final structure, but a blueprint: a direction of expansion, a geometry of inclusion, and a logic by which the inexplicable may finally be addressed, not bypassed.

The empirical vulnerability of this framework is essential to its legitimacy. If no lawful correlations between subjective state and physical outcome can be found—despite methodologically rigorous trials—then the addition of $\mathcal{H}_{\text{phenomenal}}$ is unwarranted. Conversely, if such correlations arise in statistically significant, replicable, and conditionally predictable forms, the extension may serve as a clarifying variable in domains where conventional physics fails to account for system behavior (Stapp, 2007; Cardeña, 2018). The theory is not insulated from disconfirmation; it is built to invite it.

9.1 Objections, Null Results, and Alternative Explanations

Any proposal to incorporate consciousness into the formal structure of physical theory must contend with a long history of skepticism—particularly where anomalous cognition, psi phenomena, or observer-linked effects are concerned. These critiques span multiple domains: empirical failures of replication, statistical overinterpretation, methodological slippage, and the plausible sufficiency of known psychological mechanisms. This section does not resolve these objections. It acknowledges them directly and outlines how the proposed framework engages with their substance.

The most immediate objection is empirical: many reported psi effects have failed to replicate under tightly controlled conditions. Critics such as Alcock (2003) and Hyman (1989) argue that positive findings in parapsychology are most coherently accounted for by confirmation bias, poor statistical practice, and insufficient blinding. Meta-analyses by Storm et al. (2010) and Tressoldi (2011) highlight small but statistically significant effects across large datasets, but these are often contested due to publication bias or heterogeneity of methods. The overall landscape is thus uneven—characterized by weak effects, inconsistent replication, and strong disciplinary skepticism.

The framework proposed here does not deny these problems. It offers a structural interpretation of their very persistence. In the absence of a model that specifies the conditions under which observer-linked effects should manifest, null results are not falsifying—they are ambiguous. If conscious-state modulation of outcome probabilities is context-sensitive, temporally unstable, or decoherence-vulnerable, then failures to replicate may reflect uncontrolled parameters rather than absence of effect. Without a formal theory to predict when and how these effects should emerge, the absence of consistent results is unsurprising.

Moreover, the presence of structured anomalies across decades of research—albeit weak—suggests the possibility of an underlying variable that existing models do not yet capture. The Skywatcher Discovery Framework (Barber et al., 2025) attempts to address this by establishing tiered evidentiary thresholds and systematizing protocol design to isolate phenomenological variables. Its approach draws from both engineering signal analysis and phenomenological reports, linking subjective attentional coherence with anomalous instrumental response. If correct, such coherence may serve as an operator condition within an extended Hilbert space framework. The proposed model thus generates not only predictions, but boundary conditions under which positive or null results become interpretable.

Alternative explanations for psi and consciousness-related anomalies include sensory leakage, expectancy effects, random noise clustering, and unconscious cueing. These mechanisms are well-documented and capable of producing false positives. However, they are rarely sufficient to account for structured deviations under double-blind conditions or for observer-specific patterns repeated across independent laboratories. The double-slit presentiment studies conducted by Radin et al. (2012), for instance, display modulated interference patterns correlated with attention states—results difficult to reconcile with random error alone, especially given pre-registered methods and signal filtering. The framework proposed here does not reject artifact explanations—it insists that only anomalies exceeding these baselines warrant consideration.

It is also worth distinguishing between statistical anomalies and mechanistic ones. A statistically significant deviation from chance does not imply a causal mechanism. But when deviations are consistent across classes of trials conditioned on conscious variables, and when those deviations resist known artifact controls, a mechanistic question arises. The present framework answers that question not by appeal to metaphysics, but by proposing a state-space extension that may lawfully encode the influence of subjective parameters.

From a falsifiability perspective, the framework generates risk: if outcome modulation by attentional state, intention, or intersubjective coherence fails to emerge under highly controlled, statistically powered, and explicitly theorized conditions, the model may be disconfirmed. That is a strength, not a weakness. Unlike speculative metaphysics, structural hypotheses live or die by their predictive power. If subjective–objective couplings can be instantiated under controlled conditions and traced to conscious-state configurations, the model gains traction. If not, it fails as a scientific proposal.

Ultimately, the proposal here is neither to explain away null results nor to insulate the framework from empirical critique. It is to render those critiques meaningful. By positing formal structure where current models have none, this framework aims to interpret both success and failure—offering a representational space in which anomalies, whether confirmed or negated, can be placed within lawful theory rather than left in epistemic limbo.

It is important to clarify that the present framework is offered independently of the Skywatcher Discovery team or its institutional affiliates. While this paper draws on publicly released reports and analytic protocols from Barber et al. (2025), the framework developed here is not endorsed by the authors of that work, nor should any interpretive alignment be inferred. The Skywatcher project serves here as an empirical reference point—a rigorous, multi-tiered effort to operationalize anomalous data through structured analysis. The present paper simply proposes a complementary representational lens through which the coherence of such data might be theoretically modeled.

Conclusion

This paper has advanced a tentative but formally grounded extension to quantum theory, aimed at resolving a longstanding representational gap: the exclusion of consciousness from physical law. By proposing a tensor factor $\mathcal{H}_{\text{phenomenal}}$ to augment the standard Hilbert space $\mathcal{H}_{\text{physical}}$, it sketches a framework in which the phenomenological presence is neither reduced nor ignored, but structurally encoded.

This proposal should not be mistaken for an antiphysicalist theory. It does not suggest that consciousness lies outside nature, nor that physical science is fundamentally broken. Rather, it acknowledges that current models may be structurally incomplete—not due to a metaphysical failure, but due to the omission of a coordinate that can represent phenomenological presence.

The reference to Russellian monism is not a metaphysical gesture, but an epistemic one. Following Newton, Galileo, Eddington, and Russell, it reflects a tradition in which science is understood as a structural enterprise, not a metaphysical endpoint. Chomsky's recent work reinforces this divide, underscoring that physicalism is a philosophical position, while physics is a process of modeling structures with empirical reach. This paper resides fully within the latter domain.

The recent public disclosures from U.S. government hearings (U.S. Congress, 2023), analytic frameworks such as the *Skywatcher Discovery Framework* (Barber et al., 2025), and multiple technical briefings (ODNI, 2021; SCU, 2020) are consistent with the possibility of that observer-related anomalies deserve structural attention—not metaphysical speculation. The framework proposed here is offered in that spirit: not as a theory of consciousness, but as a model-theoretic scaffold where consciousness, if it is causally implicated, may finally become visible to science.

References

Alcock, J. E. (2003). Give the null hypothesis a chance: Reasons to remain doubtful about the existence of psi. *Journal of Consciousness Studies*, *10*, 29–50.

Barber, J., DiNoto, J., Cook, E., Fowler, J., Jozak, J., Klokus, A., Lord, B., Nolan, G., & Pines, M. (2025). *Skywatcher Discovery Framework*. Internal white paper.

Barrett, A. B. (2014). An integration of integrated information theory with fundamental physics. *Consciousness and Cognition*, *29*, 232–246.

Bem, D. J., and Honorton, C. (1994). Does psi exist? Replicable evidence for an anomalous process of information transfer. *Psychological Bulletin*, *115*(1), 4–18.

Bohm, D., and Hiley, B. J. (1993). *The Undivided Universe: An Ontological Interpretation of Quantum Theory*. Routledge.

Brewer, M. A. (2025). On the foundational primacy of consciousness and its quantum-mechanical coupling to non-human intelligence technology: A framework for psionic interaction. [Preprint]. viXra. Retrieved from `https://vixra.org/pdf/2502.0091v1.pdf`

Cardena, E. (2018). The experimental evidence for parapsychological phenomena: A review. *American Psychologist*, *73*(5), 663–677.

Chalmers, D. J. (1996). *The Conscious Mind: In Search of a Fundamental Theory*. Oxford University Press.

Chalmers, D. J. (2010). *The Character of Consciousness*. Oxford University Press.

Dennett, D. C. (1991). *Consciousness Explained*. Little, Brown and Co.

Frankish, K. (2016). Illusionism as a theory of consciousness. *Journal of Consciousness Studies*, *23*(11–12), 11–39.

Goff, P. (2017). *Consciousness and Fundamental Reality*. Oxford University Press.

Goff, P. (2020). *Galileo's Error: Foundations for a New Science of Consciousness*. Vintage.

Goff, P. (2020). Panpsychism. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy (Fall 2020 Edition)*. Metaphysics Research Lab, Stanford University. Retrieved from `https://plato.stanford.edu/archives/fall2020/entries/panpsychism/`

Hameroff, S., and Penrose, R. (1996). Conscious events as orchestrated space-time selections. *Journal of Consciousness Studies*, *3*(1), 36–53.

Hyman, R. (1989). *The Elusive Quarry: A Scientific Appraisal of Psychical Research*. Prometheus Books.

James, W. (1890). *The Principles of Psychology* (Vol. 1). Henry Holt and Co.

Jahn, R. G., and Dunne, B. J. (1987). *Margins of Reality: The Role of Consciousness in the Physical World*. Harcourt Brace Jovanovich.

Kelly, E. F., Kelly, E. W., Crabtree, A., Gauld, A., Grosso, M., and Greyson, B. (2007). *Irreducible Mind: Toward a Psychology for the 21st Century*. Rowman and Littlefield.

Luna, A. P. (2023, July 26). Remarks at the U.S. House Oversight Committee Hearing on Unidentified Aerial Phenomena. *U.S. Congress*. Retrieved from `https://oversight.house.gov/hearing/unidentified-anomalous-phenomena-implications-on-national-security-public-safety-and-government-transparency/`

May, E. C., Spottiswoode, S. J., and James, C. L. (1994). Review of the psychoenergetic research conducted at SRI International (1973–1988). *Journal of Parapsychology*, *58*(4), 303–339.

Mossbridge, J., Tressoldi, P., and Utts, J. (2014). Predictive physiological anticipation preceding seemingly unpredictable stimuli: A meta-analysis. *Frontiers in Psychology*, *5*, 1413.

Nagel, T. (1974). What is it like to be a bat? *The Philosophical Review*, *83*(4), 435–450.

ODNI. (2021). *Preliminary Assessment: Unidentified Aerial Phenomena*. Office of the Director of National Intelligence. Retrieved from `https://www.dni.gov/files/ODNI/documents/assessments/Prelimary-Assessment-UAP-20210625.pdf`

Penrose, R. (1994). *Shadows of the Mind: A Search for the Missing Science of Consciousness*. Oxford University Press.

Popper, K. (1963). *Conjectures and Refutations: The Growth of Scientific Knowledge*. Routledge.

Radin, D. I. (2006). *Entangled Minds: Extrasensory Experiences in a Quantum Reality*. Paraview Pocket Books.

Radin, D. I., and Delorme, A. (2015). Electric brain signals and distant intention: A replication. *Journal of Scientific Exploration*, *29*(2), 199–216.

Radin, D. I., Michel, L., Galdamez, K., Wendland, P., Rickenbach, R., and Delorme, A. (2012). Consciousness and the double-slit interference pattern: Six experiments. *Physics Essays*, *25*(2), 157–171.

Rosenblum, B., and Kuttner, F. (2006). *Quantum Enigma: Physics Encounters Consciousness*. Oxford University Press.

Russell, B. (1927). *The Analysis of Matter*. Routledge.

Scientific Coalition for UAP Studies (SCU). (2020). *Radar and Infrared Analysis of Unidentified Aerial Phenomena: 2004–2019*. SCU Technical Report. Retrieved from `https://www.explorescu.org`

Searle, J. R. (1992). *The Rediscovery of the Mind*. MIT Press.

Stapp, H. P. (2007). *Mindful Universe: Quantum Mechanics and the Participating Observer*. Springer.

Storm, L., Tressoldi, P. E., and Di Risio, L. (2010). Meta-analysis of free-response studies, 1992–2008: Assessing the noise reduction model in parapsychology. *Psychological Bulletin*, *136*(4), 471–485.

Tart, C. T. (2009). *The End of Materialism: How Evidence of the Paranormal Is Bringing Science and Spirit Together*. New Harbinger Publications.

Tegmark, M. (2014). *Our Mathematical Universe: My Quest for the Ultimate Nature of Reality*. Knopf.

Tressoldi, P. E. (2011). Extraordinary claims require extraordinary evidence: The case of non-local perception, a classical and Bayesian review of evidences. *Frontiers in Psychology*, *2*, 117.

Tressoldi, P. E., Pederzoli, L., Matteoli, M., Prati, E., and Kruth, J. G. (2012). Can intentions influence physical reality? *Explore: The Journal of Science and Healing*, *8*(4), 217–225.

U.S. Congress. (2023). *Unidentified Anomalous Phenomena: Implications on National Security, Public Safety, and Government Transparency*. House Oversight Committee. Retrieved from https://oversight.house.gov/hearing/unidentified-anomalous-phenomena-implications-on-national-security-public-safety-and-government-transparency/

von Neumann, J. (1955). *Mathematical Foundations of Quantum Mechanics*. Princeton University Press.

Wigner, E. P. (1961). Remarks on the mind-body question. In I. J. Good (Ed.), *The Scientist Speculates* (pp. 284–302). Heinemann.