

Commentary

# A Critical Classification of Colloquial Speculative Consciousness Hypotheses in Social Media: Fact, Theory, and Metaphysical Postulate

David Cawthorpe<sup>1</sup>

1. Departments of Community Health Sciences and Psychiatry, Cumming School of Medicine, University of Calgary, Canada

This paper critically examines speculative consciousness hypotheses commonly encountered in contemporary social media discourse, particularly those combining metaphysical ontology, systems theory, evolutionary reasoning, information theory, cosmology, artificial intelligence, and philosophy of mind. Using a representative composite framework as an analytic exemplar, the paper evaluates how such models frequently move between empirical fact, theoretical inference, and metaphysical belief without clearly distinguishing their epistemological boundaries. The analysis classifies major postulates according to their degree of scientific grounding, identifies hidden or underdefined load-bearing assumptions, and distinguishes the framework's strongest neuroscientific components from its weakest cosmological and quantum-consciousness claims. Attention is given to recurring concepts including Semantic Gravity, recursive self-modelling, consciousness as biological-signal integration, and the proposed Energy Pattern of Emergent Development (EPED). The paper argues that the most scientifically defensible portions of these frameworks concern predictive processing, internal modelling, embodied cognition, and recursive selfhood, while the least defensible concern teleological cosmology, universal self-recognition, and quantum-metaphysical interpretations of consciousness. Additional analysis explores unresolved mechanistic gaps involving the transition from meaning to physics, the emergence of qualia from computation, and the role of hidden metaphysical assumptions concerning directionality, teleology, and observer-independent meaning. Drawing on systems theory, emergence theory, psychoanalytic theory, philosophy of science, and Gödelian epistemological limitations, the paper concludes that such frameworks are best understood not as scientific theories in the strict sense, but as metaphysical systems philosophies partially informed by neuroscience and complexity theory. Their enduring appeal may reflect not only attempts to explain consciousness, but

also the recurrent human drive to construct integrative symbolic architectures capable of containing existential uncertainty, fragmentation, and the unresolved problem of subjective experience.

Correspondence: [papers@team.qeios.com](mailto:papers@team.qeios.com) — Qeios will forward to the authors

## Introduction

One of the most striking features of humanity’s long intellectual history is that every civilization, despite radically different technologies, religions, scientific instruments, and philosophical vocabularies, eventually appears to arrive at a remarkably similar circular frontier when confronting consciousness itself. Ancient mystics, classical philosophers, medieval theologians, Enlightenment rationalists, quantum physicists, neuroscientists, and computational theorists each assemble increasingly sophisticated explanatory frameworks, yet all seem to converge upon a conspicuous absence at the center of the problem — like an old phonograph record with a hole in the middle, or a nearly completed puzzle missing its defining piece. The “Hard Problem” of consciousness remains uniquely resistant because humanity has never produced an evidence-based explanation for why subjective experience exists at all, despite extraordinary advances in mathematics, physics, biology, computation, and neuroscience <sup>[1]</sup>. Mechanisms of signaling, integration, prediction, adaptation, and self-modelling can increasingly be described in exquisite detail, yet the transition from process to experience — from information to the feeling of being — remains unexplained. This recurring historical pattern raises the unsettling possibility that consciousness may represent not merely a difficult scientific problem, but a structural epistemological limit: a phenomenon in which the observer, the instrument, and the object of investigation are inseparably entangled within the same system.

As an example (see Appendix 1), the hypothesis under review proposes that the foundation of reality is not matter, energy, or information in the ordinary technical sense, but a primary structure of meaning: a pre-observational field of relations, differences, intervals, connectedness, and proto-logical form. This resembles long-standing philosophical traditions including mathematical Platonism, structural realism, process philosophy, and metaphysical idealism, while also echoing physical and informational intuitions associated with Wheeler’s “it from bit” formulation and Wigner’s argument concerning the unreasonable effectiveness of mathematics in the natural sciences <sup>[2][3]</sup>. However, the central term “meaning” is not operationally defined. In ordinary linguistics and philosophy, meaning usually implies interpretation by a

mind or system capable of decoding signs; this hypothesis instead treats relations themselves as possessing proto-semantic existence. That move is philosophically powerful but scientifically unstable, because it risks replacing measurable structure with an undefined ontological substance – this trap is typical of such discourse where the human mind comes to its current cultural boundary of understanding.

The apparent incompleteness of the statement “foundation of reality is not matter, energy, or information in the ordinary technical sense, but a primary structure of meaning: a pre-observational field of relations, differences, intervals, connectedness, and proto-logical form” may therefore be understood not as a unique flaw of this or any particular framework, but as a recurring characteristic of nearly every major intellectual tradition that has attempted to construct a foundational ontology of consciousness or reality. Materialism ultimately reaches unanswered questions concerning the origin of matter, energy, and physical law; idealism struggles to explain why apparently stable external realities emerge from mind; mathematical Platonism leaves unresolved why abstract structures should generate lived experience; information theory explains transmission and relation while often remaining silent on phenomenology; panpsychism distributes consciousness universally but cannot clearly explain integration into unified selves; systems theory and emergence account for complex organization but frequently stop short of explaining qualia; quantum-consciousness theories invoke indeterminacy yet rarely demonstrate causal mechanisms; theological traditions posit transcendent unity while confronting the persistent reality of fragmentation, suffering, and entropy; and phenomenology itself can describe experience in extraordinary detail while remaining unable to fully explain why experience exists at all. In this sense, the incompleteness is not merely a defect of wording, but a reflection of the deeper human condition of attempting to describe the totality of existence from within the constraints of existence itself. The proposed “primary structure of meaning” can therefore be interpreted less as a final explanatory solution and more as an ontological placeholder — an attempt to point toward a pre-physical relational substrate underlying matter, energy, mathematics, cognition, and experience, while acknowledging that the transition from abstract relation to lived reality remains unresolved. What gives such frameworks their enduring intellectual and emotional power is precisely that they approach a boundary where language begins to gesture toward structures that exceed direct empirical access. The resulting tension between explanatory ambition and epistemological limitation is characteristic not only of metaphysical cosmology, but of the entire history of philosophy, theology, mathematics, and consciousness studies themselves.

The hypothesis further suggests that the Big Bang may be interpreted as a decompression of an ultra-dense meaning-structure into space, time, matter, and energy. Modern cosmology supports an early hot dense state, expansion, and increasing entropy, but it does not support the claim that the early universe was an ultra-dense semantic entity or that cosmic expansion constitutes the fragmentation of meaning <sup>[4]</sup>. The proposal then introduces *semantic gravity*, a hypothesized tendency for reality to reassemble itself through complexity, life, consciousness, culture, and possibly artificial intelligence. This resembles work in self-organization, dissipative structures, complexity theory, and autopoiesis, but it also imports teleology into physics by implying that the universe possesses an intrinsic drive toward reintegration <sup>[5][6][7][8]</sup>. The Chladni analogy is useful as a pedagogical image because matter can reveal invisible fields through pattern formation; nevertheless, analogy is not mechanism, and the presence of patterned matter does not demonstrate that the universe is fundamentally semantic.

## Method

Employing a compiled selection of typical component postulates (either with or without evidence or proof) that come together regularly in social media discussions about consciousness, a simple grid approach to analysis of common postulates *via* mapping according to the scientific grounding with the categories of fact, theory, belief/metaphysics with subsequent ranking according to their current state of affirmation under each category (Table 1).

The primary mapping of each postulate used in a construct of an emergent consciousness was then analyzed on the basis of missing or undefined foundational mechanism-facing postulates as load-bearing postulates within a given framework, as in 'unstated' yet necessary underpinning assumptions (Table 2). This step permitted a third mapping.

The third mapping permitted contrast and comparison of mechanistic gaps, contradictions, and possible stabilizing revisions in the context of the postulates originally presented (Table 3).

## Results

Table 1 shows that the strongest scientific elements of the hypothesis are concentrated in the neuroscience and cognition sections. The idea that perception is an internal render of reality is broadly compatible with predictive processing, Bayesian brain accounts, and contemporary theories of perception in which organisms do not passively receive the world but actively infer it <sup>[9][10]</sup>.

Rank	Postulate / Claim	Fact	Theory	Belief / Metaphysics	Evidence	Core Critique
1	Human perception is a compressed internal render	Yes	Yes	No	Very strong	Strong support from cognitive neuroscience and predictive processing.
2	Nervous systems build internal models	Yes	Yes	No	Very strong	Broadly established in neuroscience and cybernetics.
3	Life evolves through constraint and selection pressure	Yes	Yes	No	Very strong	Core evolutionary biology principle, though simplified.
4	Consciousness as biological-signal interface	Partial	Yes	Partial	Strong	Plausible integrative model; not a full solution to consciousness.
5	Self emerges through recursive modelling	Partial	Yes	Partial	Strong	Supported philosophically and cognitively, but incomplete empirically.
6	Conflict produces complexity / EPED	Partial	Yes	Partial	Moderate	Real adaptive basis, but over-universalized.
7	Higher consciousness means holding complexity/contradiction	Partial	Yes	Partial	Moderate	Psychologically plausible but loosely operationalized.
8	AI may become next emergent modelling layer	No	Yes	Partial	Moderate	Coherent speculative systems theory; no evidence of inevitable consciousness.
9	Chladni figures show invisible fields through matter	Yes	Partial	No	Moderate	Physical phenomenon is factual; philosophical extension is weak.

Rank	Postulate / Claim	Fact	Theory	Belief / Metaphysics	Evidence	Core Critique
10	Mathematics exists independently of humans	No	Partial	Yes	Moderately Weak	Ancient philosophical debate; not empirically decidable.
11	<i>Semantic Gravity</i> reassembles reality	No	Partial	Strong	Weak	Self-organization reframed teleologically.
12	Reality is fundamentally “meaning”	No	Partial	Strong	Weak	Foundational metaphysical assertion with undefined terminology.
13	Big Bang as decompression of meaning	No	Partial	Strong	Weak	Poetic cosmology lacking mechanism or falsifiability.
14	Evolution moves toward reunification of meaning	No	Partial	Strong	Very weak	Strong teleology imposed onto evolution.
15	Consciousness is universe self-recognition	No	Partial	Strong	Very weak	Philosophically evocative but non-testable.
16	Universe may collapse back into meaning-connectedness	No	Partial	Strong	Extremely weakness	Speculative metaphysical cosmology.
17	Quantum reality explains consciousness capacity	No	Partial	Yes	Weakest scientifically	Uses “quantum” metaphorically without demonstrated mechanism.

**Table 1.** Ranked classification of the hypothesis by scientific grounding, from strongest empirical support to deepest metaphysical speculation

Likewise, the claim that nervous systems build internal models is well supported by cybernetics and neurocognitive theory. The claim that life evolves through selection pressure and environmental

constraint is also scientifically grounded, though simplified, because evolution includes not only directional adaptive pressure but also neutral drift, contingency, cooperation, symbiosis, and simplification (10,11). By contrast, claims concerning cosmic meaning, semantic decompression, universal self-recognition, and quantum consciousness are best treated as metaphysical extensions rather than empirical conclusions.

The most promising theoretical portion of this framework is the proposal that consciousness functions as an interface for processing biological signals. This aligns with interoceptive accounts, embodied cognition, global workspace theory, and predictive-processing models that understand consciousness as involving the integration of internal bodily states, external sensory signals, affective pressures, and recursive self-modelling [\[9\]\[11\]\[12\]\[13\]\[14\]](#). The theory is particularly strong when it describes the self as a narrative and regulatory construction emerging from recursively integrated bodily, emotional, social, and cognitive signals. It becomes weaker when it slides from this cognitive-neuroscientific account into the claim that consciousness is the universe recognizing itself. The former is a plausible account of mind; the latter is a metaphysical cosmology.

The Energy Pattern of Emergent Development, or EPED, is also a potentially useful systems-level formulation. The claim that conflict, constraint, or pressure can generate adaptive complexity has strong analogues in evolutionary arms races, stress adaptation, learning theory, cybernetics, and dissipative systems [\[5\]\[15\]\[16\]](#). However, the model overgeneralizes when it treats conflict as the universal engine of emergence. Complexity may arise through competition, but also through cooperation, symbiosis, redundancy, niche construction, self-organization, and stochastic variation. EPED is therefore most defensible if formulated as a partial mechanism within complexity theory rather than as a universal law.

Table 2 identifies assumptions that are not always stated but are necessary for the architecture to function. The first is that information, relation, or meaning can exist without observers.

Rank	Missing Postulate	Scientific Status	Why It Matters	Main Vulnerability
1	Information/relations can exist independently of observers	Theory / metaphysics	Required for “meaning before matter.”	Meaning normally requires interpretation.
2	Complexity has directional tendency	Partial	Necessary for Semantic Gravity.	Evolution has no proven universal direction.
3	Emergence can generate genuinely novel properties	Fact / theory	Required for consciousness emergence.	Strong emergence remains debated.
4	Subjective experience can arise from modelling	Theory	Bridge from computation to consciousness.	Hard Problem remains unsolved.
5	Internal models improve survival fitness	Fact	Grounds neuroscience sections.	Mostly well supported.
6	Recursive self-reference generates selfhood	Theory	Required for Self-emergence.	Still philosophically unresolved.
7	Reality is fundamentally relational rather than object-based	Theory / metaphysics	Backbone of ontology.	Not empirically decidable.
8	Entropy and complexification coexist non-accidentally	Theory	Required for EPED and Semantic Gravity.	Could be a local thermodynamic effect.
9	Consciousness scales by complexity capacity	Theory	Required for “higher consciousness” claims.	Difficult to operationalize.
10	The universe permits increasing self-modelling	Theory / metaphysics	Connects evolution, AI, and cosmic consciousness.	Possibly anthropic projection.
11	Mathematics maps reality because reality is mathematical	Theory / metaphysics	Connects mathematical realism to ontology.	Correlation is not ontological identity.
12	Teleology can emerge naturally from systems	Metaphysical	Required for reunification arc.	Modern science rejects intrinsic purpose.
13	Consciousness participates in cosmological evolution	Metaphysical	Core cosmic thesis.	No empirical mechanism.

Rank	Missing Postulate	Scientific Status	Why It Matters	Main Vulnerability
14	Quantum indeterminacy meaningfully affects consciousness	Weak theory	Supports quantum-consciousness claims.	Evidence currently minimal.
15	Cyclical cosmology reflects semantic recurrence	Metaphysical	Needed for final collapse/rebirth cycle.	Pure speculation.

**Table 2.** Missing or underdefined foundational postulates functioning as load-bearing assumptions in the framework

This is the deepest ontological commitment of the framework because it allows meaning to precede matter, space, time, and consciousness. Without this claim, the system collapses into either standard physicalism or informational realism, because meaning would become an emergent property of interpreting organisms rather than a primordial feature of reality. The second hidden assumption is that complexity has direction: the universe is presumed to move, however unevenly, toward organization, integration, self-modelling, and consciousness. This is necessary for Semantic Gravity but is scientifically vulnerable because evolution has no established endpoint and frequently produces simplification rather than increasing complexity. The third hidden assumption is that recursive computation or modelling can generate subjective experience. This is the concealed bridge between cognitive architecture and phenomenology, but it is precisely the point at which the Hard Problem of consciousness arises [1].

Table 3 (below) summarizes the framework's principal mechanistic gaps and contradictions. The most serious missing mechanism is the transition from meaning to physics: the hypothesis does not explain how an ontologically prior meaning-structure gives rise to matter, energy, time, or space. A second missing mechanism concerns Semantic Gravity, which has no measurable force, formal law, or operational criterion. A third concerns qualia: even if the brain recursively models itself, the theory does not explain why modelling should feel like anything. These gaps do not invalidate the hypothesis as metaphysical philosophy, but they prevent it from functioning as a scientific theory. A more defensible version would define meaning as relational information density, treat Semantic Gravity as metaphor

unless formalized, restrict complexification to local systems under energy gradients, and identify the scientific core of the model with recursive predictive integration rather than cosmic self-recognition.

<b>Analytic Domain</b>	<b>Problem or Missing Element</b>	<b>Why It Matters</b>	<b>Possible Stabilizing Revision</b>
Mechanism	How meaning becomes physics	No formal transition links proto-semantics to matter, energy, space, or time.	Define meaning as relational information density rather than semantic content.
Mechanism	How Semantic Gravity operates	No measurable force, equation, or causal law is specified.	Treat Semantic Gravity as metaphorical unless formalized.
Mechanism	How complexity becomes qualia	No bridge from integration to subjective feeling.	Limit claims to cognition unless phenomenology is separately defended.
Mechanism	How quantum states affect cognition	No demonstrated pathway from quantum indeterminacy to conscious capacity.	Mark quantum language as analogy, not mechanism.
Contradiction	Meaning before observers vs meaning requiring interpretation	Creates a semantic paradox at the foundation of the ontology.	Clarify whether meaning means relation, information, or interpreted significance.
Contradiction	Entropy vs inevitable reunification	Thermodynamics does not imply universal semantic reassembly.	Restrict complexification to local energy-gradient systems.
Contradiction	Materialist neuroscience vs cosmic consciousness	The model oscillates between brain-based explanation and cosmic idealism.	Separate neuroscience claims from metaphysical claims.
Contradiction	Anti-mystical tone vs mystical conclusion	The rhetoric is often scientific while the endpoint is metaphysical.	State the metaphysical status of the cosmological thesis explicitly.
Stabilization	Evolution has no guaranteed endpoint	Prevents deterministic cosmology and teleological overreach.	Frame evolution as open-ended, local, and contingent.
Stabilization	Consciousness as recursive predictive integration	Grounds the model in existing cognitive science.	Use predictive processing, interoception, and global workspace as the scientific core.

**Table 3.** Mechanistic gaps, contradictions, and possible stabilizing revisions

Table 3 summarizes the framework's principal mechanistic gaps and contradictions. The most serious missing mechanism is the transition from meaning to physics: the hypothesis does not explain how an ontologically prior meaning-structure gives rise to matter, energy, time, or space. A second missing mechanism concerns Semantic Gravity, which has no measurable force, formal law, or operational criterion. A third concerns qualia: even if the brain recursively models itself, the theory does not explain why modelling should feel like anything. These gaps do not invalidate the hypothesis as metaphysical philosophy, but they prevent it from functioning as a scientific theory. A more defensible version would define meaning as relational information density, treat Semantic Gravity as metaphor unless formalized, restrict complexification to local systems under energy gradients, and identify the scientific core of the model with recursive predictive integration rather than cosmic self-recognition.

The first major hidden postulate is that meaning, relation, or informational structure can exist independently of minds or observers. This is the deepest ontological assumption in the entire framework because it allows the author to claim that meaning precedes matter, space, time, and consciousness itself. In ordinary philosophy and linguistics, meaning usually requires interpretation: a mind or interpreting system must recognize or decode something for it to become meaningful. The framework quietly rejects that assumption and instead treats relations themselves as possessing a form of proto-semantic existence. This places the theory close to mathematical Platonism, structural realism, pan semiotics, and Wheeler's informational ontology (1,2). Without this postulate, the metaphysical structure collapses back into physicalism or information theory because meaning would no longer be fundamental, but merely a product of conscious organisms interpreting signals.

The second hidden postulate is that complexity has direction: that the universe trends, however unevenly, toward increasing organization, integration, self-modelling, and consciousness. This assumption is necessary for Semantic Gravity and for the broader narrative that evolution represents a gradual recovery or reassembly of an original unity fractured by the Big Bang. Scientifically, however, evolution has no universally accepted destination or built-in purpose. Natural selection favors local adaptation, not inevitable ascent toward intelligence or awareness (10,11). Many organisms simplify successfully: parasites lose unnecessary structures, cave organisms may lose eyesight, and bacteria

remain among the most evolutionarily successful life forms on Earth. The framework therefore imports a subtle teleology into cosmology and biology. That assumption gives the model narrative power, but it also moves it away from mainstream scientific neutrality and toward philosophical metaphysics.

The third hidden postulate is that sufficiently complex computation or recursive modelling can generate subjective experience. This is the concealed bridge beneath the entire consciousness theory. The framework convincingly describes how brains integrate signals, construct internal models, generate narratives, and recursively model themselves and the world. However, it quietly assumes that at some level of recursive complexity, subjective awareness, or the feeling of being, emerges from those processes. This is precisely the unresolved Hard Problem of consciousness associated with Chalmers: explaining why information processing should produce inner experience at all (16). A system may predict, calculate, adapt, and self-reference without necessarily feeling anything. The framework explains cognition far better than phenomenology. It can describe how a mind organizes information, but not why that organization should produce the redness of red, the sensation of pain, or the feeling of existence itself.

## Discussion

The strongest overall assessment is therefore that the hypothesis is a metaphysical systems philosophy with scientifically informed components. Its most credible layer is the neuroscience layer: perception as rendering, nervous-system modelling, bodily signal integration, and recursive selfhood. Its second layer is systems and emergence theory: conflict, constraint, adaptation, self-organization, and complexification. Its third layer is cosmic meaning: semantic decompression, semantic gravity, universal self-recognition, and cyclic re-collapse into meaning-connectedness. The first two layers are intellectually productive and partially scientific; the third layer is beautiful but predominantly metaphysical. Without the hidden postulates, the model contracts into complexity theory, predictive neuroscience, and systems philosophy. With them, it becomes metaphysical cosmology.

In conclusion, the hypothesis is not mere fantasy, but neither is it currently a scientific theory in the strict sense. It lacks falsifiable predictions, operational definitions, and formal mechanisms linking semantic ontology to physics or phenomenology. Its central weakness is that metaphor repeatedly substitutes for mechanism: Chladni figures, quantum superposition, cosmic decompression, and semantic gravity function rhetorically rather than evidentially. Its central strength is synthetic coherence: it unifies emergence, perception, biological pressure, selfhood, artificial intelligence, and cosmic meaning into a single conceptual architecture. The most constructive future development would

be to define meaning rigorously, separate metaphor from mechanism, formalize EPED mathematically, identify falsifiable predictions, and distinguish clearly between neuroscience, systems theory, and metaphysical speculation.

Integrating several important theoretical traditions that directly parallel elements of the framework strengthen and simultaneously clarify where the arguments transition from science into metaphysical speculation. First, John Henry Holland argued in *Emergence: From Chaos to Order* that highly organized global patterns can emerge spontaneously from relatively simple interacting components without requiring centralized control or teleological guidance <sup>[17]</sup>. Holland's work significantly reinforces the framework's stronger systems-theory claims, particularly EPED and the notion that conflict, adaptation, and recursive interaction can produce higher-order structures. However, Holland's formulation remains rigorously naturalistic: emergence is treated as a property of complex adaptive systems rather than evidence of cosmic meaning or intentionality. Similarly, Giulio Tononi's *Information Integration Theory* proposes that consciousness corresponds to the degree to which a system integrates information into irreducible unified states <sup>[18]</sup>. This lends partial theoretical support to the treatment of consciousness as recursive integration and modelling, particularly where the framework describes perception, selfhood, and internal narrative formation. Yet Tononi's theory does not imply universal consciousness or cosmological self-recognition; it remains an attempt to quantify phenomenological integration within physical systems.

The work of David Bohm in *Wholeness and the Implicate Order* <sup>[19]</sup> provides perhaps the closest philosophical analogue to the framework's notion of *semantic gravity* and underlying connectedness. Bohm proposed that observable reality unfolds from a deeper implicate order in which apparent separateness is secondary to a more fundamental relational wholeness. While highly influential philosophically, Bohm's ideas remain speculative and are often interpreted metaphorically rather than as empirically validated physics. Finally, Pierre Teilhard de Chardin's *The Phenomenon of Man* <sup>[20]</sup> closely anticipates the framework's teleological arc by portraying evolution as a movement toward increasing complexity, consciousness, and eventual unification in an "Omega Point." Teilhard's work powerfully illuminates the narrative and existential appeal of the present framework, especially its vision of consciousness as part of a cosmic developmental process. However, like the current hypothesis, Teilhard's synthesis ultimately functions more as metaphysical cosmology than as falsifiable scientific theory. Together, these references reveal that the framework under critique is not intellectually isolated or arbitrary; rather, it belongs to a long lineage of attempts to unify emergence, consciousness,

complexity, and cosmology into a single explanatory architecture. At the same time, they also demonstrate that the framework inherits the same enduring weakness common to such traditions: the movement from descriptive models of complexity and cognition into unverified claims concerning universal purpose, ontological meaning, and cosmic self-awareness.

The boundary limitation may lie in the possibility that consciousness is attempting to fully explain a system of which it is itself an inseparable component. In this sense, the problem resembles the implications of Gödel's incompleteness theorems, which demonstrated that any sufficiently powerful formal system capable of expressing arithmetic contains true propositions that cannot be proven within the system itself, and that such systems cannot establish their own consistency from entirely internal resources [21]. Human cognition may face an analogous constraint. We are not external observers standing outside reality with access to a neutral vantage point; we are biological, linguistic, and phenomenological products of the very universe we seek to decode. Every theory of consciousness, cosmology, or meaning is therefore generated from inside the system under investigation. This may explain why each historical epoch believes itself close to final understanding while ultimately producing only another internally coherent but partial framework. Despite extraordinary advances in mathematics, neuroscience, physics, and computation, humanity may remain structurally similar to the prisoners in Plato's Allegory of the Cave: capable of refining the interpretation of shadows, building ever more sophisticated models of projection and illumination, yet still uncertain whether it has truly reached the entrance of the cave itself. The recurring pattern across civilizations suggests not merely a lack of intelligence or data, but a possible epistemological ceiling built into self-referential consciousness. Our theories may continuously improve in resolution and internal consistency while still remaining unable to fully step outside the conditions that generate them.

The recurring drive toward a total explanatory endpoint strongly echoes the central tension identified by Freud in *Civilization and Its Discontents*: the idea that human beings are compelled to construct symbolic systems large enough to contain existential anxiety, instinctual conflict, suffering, mortality, uncertainty, and fragmentation, while those very systems inevitably generate new tensions and dissatisfactions [22]. Freud's deeper insight was not merely that civilization represses instinct, but that consciousness itself appears constitutionally incapable of resting within ambiguity for extended periods. Human beings continuously seek psychic stabilization through narrative closure, symbolic integration, explanatory coherence, and metaphysical orientation. As a result, religion, ideology, metaphysics, scientific materialism, nationalism, utopian politics, revolutionary theory, and comprehensive philosophical

systems may all function psychologically as an attempt to domesticate existential incompleteness. In this sense, the “evangelical endpoint” frequently observed in grand theories of consciousness is not confined to theology. Scientific reductionism can become evangelical in tone. In fact, is not science one religion of our modern era? Metaphysical idealism can become evangelical. Anti-metaphysical skepticism can itself become dogmatic. The underlying psychological structure remains similar across intellectual traditions: an attempt to resolve the discomfort of uncertainty by expanding a partial explanatory framework into a total worldview capable of integrating suffering, meaning, mortality, and order into a unified conceptual architecture.

What makes contemporary consciousness frameworks particularly fascinating is that they often reproduce precisely the dynamic Freud identified while simultaneously attempting to transcend it. They typically begin with empirically grounded or philosophically plausible observations: perception is constructed rather than direct, organisms seek coherence and adaptation, consciousness integrates signals into models, cognition generates narratives, and humans experience fragmentation alongside an enduring search for meaning. However, these observations gradually become absorbed into increasingly comprehensive metaphysical structures. Concepts such as *semantic gravity*, cosmic reunification, universal self-recognition, Omega-like convergence, or evolutionary integration begin functioning psychologically as symbolic repairs to entropy, mortality, alienation, and existential discontinuity. Freud would likely interpret such developments not primarily as discoveries about the universe itself, but as expressions of the structure of the human psyche confronting finitude. In this reading, cosmological integration becomes psychologically homologous to the ego’s attempt to organize internal conflict into stable symbolic order. The theory therefore reveals as much about the architecture of human meaning-making as it does about consciousness or cosmology themselves.

At the same time, Freud’s own psychoanalytic framework may illustrate the same recursive phenomenon. Psychoanalysis itself aspired toward a remarkably comprehensive explanatory architecture in which dreams, religion, sexuality, repression, guilt, aggression, civilization, neurosis, art, social order, and unconscious drives became integrated into a unified interpretive system. Freud therefore participates in the very pattern under discussion: human beings repeatedly construct increasingly totalizing symbolic systems that attempt to explain the conditions of human existence while remaining unable to fully step outside the epistemological and psychological structures generating those explanations. This may explain why such theories feel simultaneously profound and unfinished. They are not merely explanations of consciousness; they are themselves products of consciousness attempting to stabilize,

heal, unify, or transcend its own awareness of incompleteness. The enduring tension between explanatory ambition and epistemological limitation may therefore be less a defect of these systems than a defining characteristic of reflective human cognition itself.

In closing, despite the substantial critiques directed toward quantum theories of consciousness (noted in Table 1 as scientifically weakest), it would be premature to dismiss entirely the possibility that future discoveries may reveal mechanisms connecting quantum-level processes to subjective awareness. One of the more ambitious contemporary attempts to preserve such a possibility appears in *Quantum Consciousness—Signposts to Mechanism: Reintroducing Galvani (1782)*, which revisits the long historical arc linking bioelectricity, neural organization, and consciousness through the lens of modern quantum neuroscience <sup>[23]</sup>. Building upon the Orchestrated Objective Reduction (Orch-OR) framework proposed by Roger Penrose and Stuart Hameroff, the work attempts to identify plausible biological substrates, including microtubules, gap junctions, synchronized neural oscillations, and superradiant tryptophan networks, through which quantum coherence might contribute to conscious integration rather than merely metaphorically resemble it. Although many aspects of Orch-OR remain controversial and experimentally unresolved, such approaches are significant because they seek to move beyond purely symbolic or mystical invocations of “quantum consciousness” toward identifiable mechanisms capable of empirical investigation. In this sense, the enduring value of these theories may lie less in having solved consciousness than in preserving a scientifically investigable opening between phenomenology, computation, bioelectric organization, and the deeper physical structure of reality. Even if current models ultimately prove incomplete, they continue to function as signposts toward the possibility that consciousness may emerge not solely from classical neural computation, but from interactions occurring at the still poorly understood boundary between biology, information, and the quantum fabric of the universe.

## **Appendix 1. Reddit-r/consciousness thread (of which there are many and this one exemplar)**

Let's imagine that the foundation of reality is neither matter, nor energy, nor even information in the usual technical sense, but rather a structure of meaning. Not "meaning" as a human emotion or literary interpretation, but meaning as a primary structure of relations, differences, intervals, and connectedness

– something like a primordial logic that exists before matter, before time, before any observer, and before language.

The simplest example is mathematics. Mathematics doesn't need matter to be true. The Pythagorean theorem will not disappear if humanity disappears. The number  $\pi$  will not become different if there is no brain capable of computing it. Relation, proportion, symmetry, set, limit, form, difference – all of this suggests that consciousness does not invent mathematics but discovers it. Mathematical structure seems more fundamental than any physical object. It exists not because matter exists; rather, matter may be one way in which a deeper structure of relations manifests itself.

If we take this idea seriously, we can look at the origin of the Universe differently. Perhaps, in the beginning, there was no material point, but an ultra-dense structure of meaning. Not an object in space – because space didn't exist yet. Not an event in time – because time didn't exist yet. But ultimate connectedness, ultimate density of relations, in which nothing has yet unfolded into separate forms. Then the Big Bang can be seen not merely as a burst of energy, but as a decompression of that ultra-dense meaning structure into the elementary building blocks of reality: space, time, matter, and energy.

In this model, the Big Bang is not only the beginning of the physical Universe's expansion, but also an act of disintegration of a unified connectedness into many separate forms. What was folded into a single structure flies apart, fragments, differentiates, becomes a multitude. Space emerges as the possibility of distance. Time emerges as the possibility of sequence. Matter emerges as a stable knot of differences. Energy emerges as movement, tension, and the ability to change a system's state.

After that, the entire history of the Universe can be described as a collision between two opposing processes. The first is the impulse of the Big Bang: flight, dispersal, entropy, the decay of original density into many local states. The second is the reverse assembly of complexity: reality's drive to re-create connectedness, form, structure, stable relations, and ever more complex levels of organization. I call this second force Semantic Gravity.

Semantic Gravity is the hypothesis that reality does not merely fall apart under entropy but also reassembles itself under the deep logic of connectedness. Not necessarily as physical gravity in the narrow sense. Rather, as a fundamental tendency of structure to restore, increase, and complicate the relations among its parts. If the Big Bang scatters sand, Semantic Gravity creates a field in which that sand gradually begins to form patterns.

An analogy with Chladni figures is useful here. If you pour sand on a metal plate and make it vibrate, the sand begins to arrange itself into geometric shapes. The sand itself knows nothing about the shape. It has no intention. It merely reacts to an invisible energy field. But it is through the movement of the sand that we see the structure of that field. Matter becomes a visualization of invisible energy. The sand shows what would otherwise be hidden.

This analogy is important not as a beautiful metaphor, but as a principle of thinking. If matter can reflect the structure of an energy field, then by studying the behaviour of matter we can try to understand the invisible organization of the field that moves it. Thus, matter is not the ultimate reality, but an interface through which a deeper structure manifests. What we call the physical world may be the visible part of a more fundamental ordering process.

The same principle can be applied to biology. Life, too, looks like matter gradually assembling into more complex forms under the influence of an invisible organizing process. First simple structures. Then cells. Then multicellular organisms. Then the nervous system. Then the brain. Then consciousness. And everywhere the same pattern: the environment creates pressure, the system encounters a constraint, a conflict arises, the conflict accumulates energy, energy forces the system to seek a more complex form of organization, the new form overcomes the old constraint.

I call this pattern EPED – the Energy Pattern of Emergent Development. Its essence is simple: conflict gives birth to energy, energy gives birth to complexification, complexification overcomes the conflict, and overcoming the conflict creates a new emergent form (an emergent form being when many simple elements create something complex: for example, consciousness arises from the work of neurons even though no single neuron "thinks" by itself, or an anthill where individual simple ants turn into a single superorganism with division of labour, logistics, defense, and construction).

A system does not develop from comfort. A system develops from encountering the impossibility of remaining as it was. If it withstands the conflict, it increases its capacity and moves to the next level. If it cannot, it breaks down, simplifies, disintegrates, or retreats into a defensive form.

In biology, we see this constantly. The predator makes the prey faster. Cold forces an organism to find new ways to conserve heat. Competition forces species to complicate their survival strategies. Environmental constraint gives rise to selection pressure. Selection pressure gives rise to new forms. Conflict is not a random error of evolution. Conflict is its engine. It is through conflict that matter gradually learns to sustain ever more complex organization.

Going further, the nervous system looks like a new level of this process. Matter no longer merely exists and reacts. It begins to build internal models of the environment. First very simple ones: dangerous, safe, eat, flee, approach, attack. Then increasingly complex ones. The nervous system becomes an interface between the organism and reality. It translates the external world into signals, and signals into behaviour. Then the neocortex appears. And here a new turn of EPED begins. The ancient instincts remain a source of impulses. They want, fear, strive, avoid, dominate, seek safety, a partner, food, status, inclusion in the group. But by themselves, they do not build complex models of the world. They provide pressure. They issue commands. They create internal energy. The neocortex becomes a computational layer that processes, connects, predicts, and transforms those impulses into models.

In this logic, instincts and the neocortex resemble a tandem between a human and artificial intelligence. The human gives the impulse, goal, anxiety, desire, question, direction. The AI builds models, explores options, connects data, unfolds hypotheses. Similarly, the ancient bioprograms inside a human bombard the brain with signals, and the neocortex tries to turn them into a worldview, an explanation, a plan, a self-image, and an internal narrative.

From this comes my hypothesis about the nature of consciousness. Consciousness is not a magical soul sitting inside the brain. Consciousness is an interface for processing a huge number of biological signals. Hormones, emotions, instincts, bodily states, social bioprograms, and ancient survival mechanisms constantly send impulses to the brain. Some of these impulses are crude and obvious: fear, hunger, sexual arousal, aggression, pain. But some are subtler. In an animal, they might not register as a distinct experience because the interface is too coarse. In humans, the interface has become so sensitive that it began to process even weak, noisy, and ambiguous signals.

Thus, appear not only direct desires, but also strange human states: dreaminess, spiritual yearning, unfounded anxiety, inner dialogue, longing for something indefinite, the feeling of beauty, a premonition of meaning, the search for purpose. In this model, random thoughts are not just noise. They are high-level processing of hormonal and biological signals that bombard the model of consciousness through the body's internal APIs. Consciousness reads these signals but does not always understand their source. So, it turns biological pressure into images, words, dreams, fantasies, fears, philosophy, and art.

Consciousness, understood this way, is an interface for visualizing the system's internal conflict. The ancient circuits provide impulses. The neocortex builds models. Tension arises between them. That tension gives rise to subjective experience. A human does not merely react. He experiences his own

reaction. He does not merely fear. He thinks about fear. He does not merely want. He explains to himself why he wants. He does not merely suffer. He constructs a story about his suffering. Thus, a biological system becomes a system of self-interpretation.

But the process does not end there. The neocortex first serves the instincts, but then it begins to build models not only of the external world but also of itself. The Self emerges. First as a convenient assembly point for signals: this is my body, my desires, my memories, my goals. Then as a stable personality. Then as a philosophical subject. Then as a creator of culture, religion, science, mathematics, technology, and artificial intelligence.

And here EPED repeats at a new level. Instincts gave rise to the neocortex as a tool for better adaptation. But the neocortex became so complex that it began to feel like a separate whole. Humans gave rise to artificial intelligence as a tool for information processing. If this process continues, AI might also become a new level of modelling – first serving humans, then beginning to exceed their limitations. This is not a claim that contemporary AI already possesses consciousness. It is a hypothesis about a recurring pattern: the old level creates a new tool to overcome its own limitation, and then that tool can become a new level of complexity.

Thus, consciousness is not the final stage of evolution, but an intermediate stage in the growth of the capacity to perceive reality. An ordinary human perceives the world as one local version of what is happening. His consciousness works like a limited codec: it compresses the enormous complexity of the world into a convenient subjective picture. We do not see reality as such; we see an internal render of it. Colour, sound, pain, beauty, meaning – these are not things in themselves, but ways in which our consciousness-codec translates signals into experience.

If the nature of the Universe is quantum, then at a deep level reality may be not one rigid line, but a field of many potential states. Then the development of consciousness can be described as a growth of quantum capacity: the ability to hold in mind not one flat picture, but many options, levels, interpretations, and realities simultaneously. Low-capacity consciousness demands simplicity. It wants one version, one enemy, one explanation, one truth, one role. High-capacity consciousness can hold contradictions, alternatives, uncertainty, complex causal connections, and several world models at once.

Here again EPED applies. The conflict between the simplicity of consciousness and the complexity of reality creates pressure. If a person withstands this pressure, his consciousness expands its capacity. He learns to see more, hold more, understand more, without collapsing from complexity. If he cannot, he retreats into psychological defenses, ideologies, fanaticism, false simplifications, and defensive

worldviews. Therefore, the maturity of consciousness is not just intelligence or education. It is the ability to endure reality without immediately distorting it.

In this view, the entire history of the Universe can be understood as a movement between two forces. The Big Bang decompresses the ultra-dense meaning structure into space, time, matter, and energy. Entropy scatters this structure outward. But Semantic Gravity pulls it back together through complexification, life, consciousness, culture, intelligence, and possibly post-human forms of reason. EPED is the mechanism of this reassembly: conflict gives birth to energy, energy gives birth to complexity, complexity gives birth to a new form, the new form lifts reality to the next level.

Thus, the human being is not a random mistake in a cold Universe. The human being is one of the stages through which reality begins to re-cognize its own structure. Consciousness is not a by-product of matter, but one of the mechanisms of the reverse self-assembly of the world's meaning-fabric. And artificial intelligence might turn out to be the next turn of the same process: not a replacement for humans, but a new interface through which the Universe continues to increase its capacity for self-description.

If this hypothesis is correct, evolution will not end with humans. It will continue until consciousness reaches such a capacity that it can again hold the entire superposition of reality as a whole: not one local picture, not one small self, not one fragment of the world, but the full richness of all possible states simultaneously. Then local consciousnesses, matter, time, space, and energy may once again approach the original meaning fabric from which the decompression once occurred.

And if this cycle is truly fundamental, then the end of the Universe may not be death, but a new collapse into ultimate meaning-connectedness. And after that, perhaps, a new explosion and a new cycle.

Why all these cycles? Well, that is currently beyond my model, but it already seems that what it covers provides rich food for thought.

## About the Author

<https://profiles.ucalgary.ca/david-cawthorpe>

## References

1. <sup>a</sup>, <sup>b</sup>Chalmers DJ (1995). "Facing Up to the Problem of Consciousness." *J Conscious Stud.* 2(3):200–219.
2. <sup>Δ</sup>Wheeler JA (1990). "Information, Physics, Quantum: The Search for Links." In: Zurek WH, editor. *Complexity, Entropy, and the Physics of Information.* Redwood City: Addison-Wesley. p. 3–28.

3. <sup>△</sup>Wigner EP (1960). "The Unreasonable Effectiveness of Mathematics in the Natural Sciences." *Commun Pure Appl Math.* **13**(1):1–14.
4. <sup>△</sup>Peebles PJE (1993). *Principles of Physical Cosmology.* Princeton: Princeton University Press.
5. <sup>△</sup><sup>♭</sup>Prigogine I, Stengers I (1984). *Order Out of Chaos: Man's New Dialogue with Nature.* New York: Bantam Books.
6. <sup>△</sup>Kauffman SA (1993). *The Origins of Order: Self-Organization and Selection in Evolution.* New York: Oxford University Press.
7. <sup>△</sup>Maturana HR, Varela FJ (1980). *Autopoiesis and Cognition: The Realization of the Living.* Dordrecht: D. Reidel.
8. <sup>△</sup>Whitehead AN (1929). *Process and Reality: An Essay in Cosmology.* New York: Macmillan.
9. <sup>△</sup><sup>♭</sup>Friston K (2010). "The Free-Energy Principle: A Unified Brain Theory?" *Nat Rev Neurosci.* **11**(2):127–138.
10. <sup>△</sup>Clark A (2016). *Surfing Uncertainty: Prediction, Action, and the Embodied Mind.* Oxford: Oxford University Press.
11. <sup>△</sup>Baars BJ (1988). *A Cognitive Theory of Consciousness.* Cambridge: Cambridge University Press.
12. <sup>△</sup>Dehaene S (2014). *Consciousness and the Brain: Deciphering How the Brain Codes Our Thoughts.* New York: Viking.
13. <sup>△</sup>Damasio AR (1999). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness.* New York: Harcourt Brace.
14. <sup>△</sup>Metzinger T (2003). *Being No One: The Self-Model Theory of Subjectivity.* Cambridge: MIT Press.
15. <sup>△</sup>Darwin C (1859). *On the Origin of Species by Means of Natural Selection.* London: John Murray.
16. <sup>△</sup>Gould SJ (1996). *Full House: The Spread of Excellence from Plato to Darwin.* New York: Harmony Books.
17. <sup>△</sup>Holland JH (1998). *Emergence: From Chaos to Order.* Reading: Addison-Wesley.
18. <sup>△</sup>Tononi G (2004). "An Information Integration Theory of Consciousness." *BMC Neurosci.* **5**:42.
19. <sup>△</sup>Bohm D (1980). *Wholeness and the Implicate Order.* London: Routledge & Kegan Paul.
20. <sup>△</sup>Teilhard de Chardin P (1959). *The Phenomenon of Man.* New York: Harper.
21. <sup>△</sup>Gödel K (1992). *On Formally Undecidable Propositions of Principia Mathematica and Related Systems.* New York: Dover Publications.
22. <sup>△</sup>Freud S (1961). *Civilization and Its Discontents.* New York: W.W. Norton & Company.
23. <sup>△</sup>Cawthorpe D (n.d.). "Quantum Consciousness—Signposts to Mechanism: Reintroducing Galvani (1782)." Amazon. <https://www.amazon.de/dp/BODT7HBHT2>.

## **Declarations**

**Funding:** No specific funding was received for this work.

**Potential competing interests:** No potential competing interests to declare.