

SENSORY EVOLUTION, DIMENSIONALITY, AND INFORMATIONAL SUBSTANCE:

**a critical–propositional analysis of Guanyi Liu’s
hypothesis in confrontation with the Theory of
Objectivity, its modal axioms, phenomenic elements,
Inducer Effects, cosmological Eras, and substance
transcendent to the quantum**

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1. ABSTRACT

This article presents a critical–propositional analysis of Guanyi Liu’s *The Hypothesis of Sensory and Dimensional Evolution* in confrontation with the Theory of Objectivity developed by Vidamor Cabannas and Denivaldo Silva. Liu’s hypothesis proposes that biological sensory systems function as dimensional decoding operators, transforming a high-dimensional noumenal reality into phenomenal worlds structured by perception, cognition, and evolutionary adaptation. The present analysis argues that Liu’s framework enters into strong dialogue with the Theory of Objectivity insofar as both approaches reject naive realism, emphasize informational mediation, and treat the observed universe as a relationally constituted domain. However, important tensions remain: Liu presupposes a high-dimensional configuration space without deriving its modal necessity; his model risks reducing physical objectivity to perceptual interface; and he does not identify the transcendent element as knowledge or information produced in atomic relations and equivalent to atomic radiations, as required by the Theory of Objectivity. The article articulates Liu’s hypothesis with the seven absolute truths of TO, its phenomenic elements, Inducer Effects, cosmogonic theorem, and cosmological Eras. It concludes that Liu’s article has a high degree of dialogue with TO, especially in relation to the Era of Units of Intelligence, the theory of phenomenic decoding, and the informational status of observation, receiving a dialogical score of 8.3 out of 10.

Keywords: Theory of Objectivity; Guanyi Liu; sensory evolution; dimensional cognition; phenomenic elements; Inducer Effects; quantum observation; informational transcendence; cosmology; Fermi paradox.

2. Introduction

Guanyi Liu’s article, *The Hypothesis of Sensory and Dimensional Evolution*, published on Zenodo in 2026, proposes a speculative and interdisciplinary hypothesis according to which the evolution of biological sensory systems is directly related to the evolution of dimensional cognition. The proposal begins with two fundamental assumptions: first, that the universe possesses a highest dimension or a domain of maximal dimensionality; and second, that sensory evolution is intrinsically linked to dimensional cognition (Liu 2026).

From these assumptions, Liu seeks to reinterpret highly complex scientific and philosophical themes, such as quantum mechanics, the observer problem, uncertainty, delayed choice, nonlocality, the Fermi paradox, and the possibility of cognitively incommensurable extraterrestrial civilizations. The article is not limited to evolutionary biology

or philosophy of perception. Its ambition is to build a bridge among perception, fundamental physics, information theory, cosmology, and civilizational evolution.

This ambition makes Liu’s text particularly relevant for dialogue with the Theory of Objectivity, hereafter TO, formulated by Vidamor Cabannas and Denivaldo Silva since its foundational bibliography of 2016 and 2018, in which a third theory of the origin of the universe is proposed as an alternative to the Big Bang Theory and Creationism (Cabannas and Silva 2016; Cabannas and SILVA 2018). TO begins from absolute truths of modal necessity, understanding the universe as the result of a logical, relational, informational, and phenomenic genesis. Its horizon is not merely to describe the cosmos, but to deduce the necessary conditions for universe, element, boundary, observation, composition, and substance transcendent to the quantum.

The objective of the present article is to develop a critical–propositional analysis of Liu’s hypothesis in confrontation with TO. The analysis seeks to identify compatibilities, tensions, limits, and possibilities of integration. In particular, it examines whether Liu’s model can be reinterpreted, within TO, as an auxiliary theory of phenomenic decoding performed by Units of Intelligence. It also evaluates whether Liu’s decoding operators may correspond, in the language of TO, to inducer-reducer effects by which cognizing elements convert informational relations and atomic radiations into observable worlds.

The analysis considers the foundational bibliography of TO, especially the works of 2016, 2018, and 2020; the recent bibliography of TO, which deepens modal ontology, testability, and operational bridges with contemporary physics; and the supporting and dialogical bibliography, including Heisenberg, Einstein, Bohm, Prigogine, Penrose, Hawking, Kuhn, Aspect, the Planck Collaboration, LIGO/Virgo, and recent JWST observations.

3. Guanyi Liu’s Article: Object, Hypothesis, and Conceptual Architecture

Liu’s article proposes that organisms do not merely receive information from the world; rather, they construct cognitive worlds according to their sensory systems. The main hypothesis is that each organism’s perceptual system functions as a decoding function. This function transforms a higher, high-dimensional domain into a phenomenal space accessible to the organism.

Formally, Liu represents the complete and determinate state of the universe as a point P in a high-dimensional classical configuration space Γ . This domain Γ is taken as objective reality, or *noumenon*. The world observed by an organism is represented by O ,

a phenomenal space produced by a decoding map D :

$$D : \Gamma \longrightarrow O.$$

This map is many-to-one; that is, it compresses, reduces, and discards information. Perception, therefore, does not reveal the totality of reality, but only the portion that the sensory channel is able to project, stabilize, and organize. Liu decomposes this map into operations that discard unresolved dimensions, compress spatial dimensions, and compress temporal dimensions. Human physics would thus be a product of the human perceptual channel, which the author calls the photoelectric system.

This structure brings Liu close to contemporary theories of perceptual interface, such as the Interface Theory of Perception by Hoffman, Singh, and Prakash, according to which perception evolved to favor adaptation, not necessarily to reproduce reality as it is (Hoffman, Singh, and Prakash 2015). Liu, however, goes further: he argues that the very physical systems perceived by different organisms may differ because each organism cuts out and organizes different dimensions of the higher domain.

This hypothesis is then applied to three sets of problems:

1. quantum physics, reinterpreted as an efficient calculus of knowledge under human perceptual constraints;
2. the Fermi paradox, reinterpreted as the result of incommensurability among civilizational channels of decoding;
3. biological and civilizational evolution, treated as a process of selection of systems capable of extracting useful regularities from a broader informational ground.

The article, therefore, does not present a conventional physical theory, but a philosophical–mathematical architecture in which known physics is a function of sensory interface. This places it in direct dialogue with themes already present in the philosophy of science, such as the relation between observer and reality in Heisenberg (1958), paradigmatic revolution in Kuhn (1962), the implicate order in Bohm (1980), and the emergence of order out of chaos in Prigogine and Stengers (1984).

4. The Sensory–Dimensional Hypothesis and the Question of Phenomenal Reality

The central question of Liu’s article is the following: is what we call the physical world reality itself, or is it the result of a particular sensory decoding? Liu’s answer

is clearly the second. For him, human three-dimensional space, linear time, and even the probabilistic formulation of quantum mechanics are products of a specific perceptual channel.

The sensory–dimensional hypothesis may be summarized in four theses:

1. fundamental reality is broader than the observed world;
2. organisms possess limited decoding channels;
3. each channel selects certain regularities and discards others;
4. the physics perceived by a civilization depends on how its sensory channel organizes information.

This hypothesis does not completely deny the existence of objective reality. On the contrary, Liu preserves a noumenal reality, Γ . However, access to this reality is always indirect, filtered, and compressed. The human world would be only one of the possible phenomenal images of totality.

This point dialogues strongly with TO, because the Theory of Objectivity also does not identify the observed universe with a raw reality that is immediately given and independent of relations. In TO, the element exists in field, boundary, relation, observation, and composition. Objectivity is not mere passive exteriority, but a modal–relational structure. The element is not fully defined without boundary; it does not fully exist without observation; it is not constituted without previous elements; and there is no existential universe without substance transcendent to the quantum (Cabannas and Silva 2016; Cabannas and SILVA 2018).

Nevertheless, TO avoids reducing objectivity to biological perception. For TO, perception is a late stage of the universe, linked to Units of Intelligence, but objectivity is already rooted in modal truths prior to life. Thus, Liu’s article is compatible with TO when it deals with observed phenomenality, but insufficient when it attempts to make perception the almost absolute axis of physics.

5. The Theory of Objectivity as a Matrix of Modal Reading

The Theory of Objectivity begins from its own axiomatic matrix. Its Seven Absolute Truths, as fixed by the user and by the recent tradition of TO, are:

1. Nothingness is a Primitive and Eternal Mathematical Essence.

2. Every element possesses a magnetic field, or aura, that makes it unique.
3. The infinite represents the necessary non-element for the logical definition of the universe.
4. Two distinct elements require at least one boundary line between them.
5. An element only exists fully if observed by at least two others.
6. Every element is composed of elements prior to it.
7. There is no existential universe without substance transcendent to its quantum.

These axioms are not mere empirical hypotheses. They are presented as truths of modal necessity. This means that they do not merely describe how the universe in fact appears to be, but indicate the conditions without which no existential universe could be logically defined.

The recent bibliography of TO, especially *From Modal Axioms to Empirical Contact* and *Modal Ontology and Testability*, seeks to demonstrate that this modal necessity does not prevent empirical contact. On the contrary, TO seeks operational bridges between axioms, physical phenomena, convergence zones, properties of the vacuum, gravity, fields, information, and observation (Cabannas and Silva 2026a; Cabannas and Silva 2026b).

In this context, Liu's article may be treated as an opportunity for dialogue. It does not begin from the Seven Truths of TO, but it offers a partial formalization of the relation among reality, perception, and information. Its hypothesis may contribute to thinking how a Unit of Intelligence, a civilization, or an organism transforms transcendent information into phenomenal image. However, its model would need to be submitted to the modal discipline of TO in order not to remain merely a speculative hypothesis.

6. Confrontation with the Seven Absolute Truths of TO

6.1. Nothingness as Primitive and Eternal Mathematical Essence

The first Truth of TO states that Nothingness is a Primitive and Eternal Mathematical Essence. This formulation should not be confused with vulgar nothingness, understood as absolute and sterile absence. In TO, Nothingness is a primitive condition of possibility, a mathematical essence prior to the differentiation of elements.

Liu's article does not begin from Nothingness. It begins from Γ , a high-dimensional configuration space. This choice creates a fundamental tension. Γ is already structure; it already possesses dimensionality; it already contains points, trajectories, regions, and possibilities of projection. Therefore, it is not primitive in the radical sense of TO. It is an assumed ontological domain, not a deduced one.

TO would ask: where does Γ come from? What is its modal necessity? Why must there be a high-dimensional space rather than another structure? What boundaries define Γ ? What distinguishes its points? How does the possibility of projection arise?

In this sense, Liu offers an intermediate ontology, not a radical cosmogony. His hypothesis can be incorporated into TO only if Γ is interpreted as a later layer of universal genesis, perhaps equivalent to a logical-informational field already derived from Nothingness and from the Antagonistic Tempus.

6.2. Every Element Possesses a Magnetic Field or Aura that Makes It Unique

The second Truth of TO states that every element possesses a singular aura. This aura may be understood as a distinctive field, a relational mark, and a condition of uniqueness. In Liu, singularity appears in the form of the operators D . Each organism, species, or civilization has a particular way of decoding reality.

The compatibility is relevant. The operator D can be read, in a TO key, as a functional expression of the cognitive aura of the observing element. The difference is that, for Liu, the focus falls on biological and civilizational systems; for TO, every element, even prior to life, possesses its own field.

Thus, Liu's proposal should be expanded: not only organisms decode; every element relates through its aura. Cognition would be an advanced stage of this more general condition.

6.3. The Infinite as Necessary Non-Element

The third axiom of TO states that the infinite represents the necessary non-element for the logical definition of the universe. In Liu, the presence of unresolved dimensions, symbolized by i in $\text{Dim}(\Gamma) = t+r+i$, approaches the notion that there is always something that exceeds observation.

However, the infinite of TO is not merely the set of what is unobserved. It is a logical condition of definition. For there to be an element, there must be a non-element; for there to be the finite, there must be a horizon of distinction; for there to be a universe,

there must be that which functions as a limit not fully convertible into element.

Liu describes cognitive blind spots. TO describes an ontological necessity. Compatibility exists, but it requires deepening.

6.4. Two Distinct Elements Require Boundary

The fourth Truth of TO finds strong correspondence in Liu's article. The entire model depends on distinctions: Γ/O , noumenon/phenomenon, human channel/alien channel, image/kernel, accessible information/discarded information.

The notion of the kernel of D , that is, the set of elements of Γ that do not become observable in O , may be read as a functional boundary. The kernel marks what remains outside the phenomenal image. Thus, Liu offers a useful formalization for thinking perceptual boundary.

TO, however, expands boundary. It is not merely a limit of perception. It is the condition of ontological distinction among elements. The boundary line does not merely prevent or allow observation; it constitutes difference.

6.5. Full Existence and Observation by at Least Two Others

The fifth axiom of TO states that an element only exists fully if observed by at least two others. This proposition is especially important in confrontation with Liu, since the analyzed article also places observation at the center of phenomenal physics.

However, observation in Liu is primarily cognitive and biological. In TO, observation is broader: it designates a relation of ontological confirmation among elements. Full existence requires observational plurality because no element can stabilize itself in isolation. It is in relational triangulation that objectivity emerges.

Liu admits that different observers construct different worlds. But he does not state that the full existence of an element depends on at least two observers. Therefore, there is partial compatibility and modal tension.

6.6. Every Element Is Composed of Elements Prior to It

The sixth axiom of TO has strong correspondence with Liu's evolutionary hypothesis. The human sensory system, for Liu, is the result of a long evolutionary composition: mutation, reproduction, selection, environment, competition, neural organization, and adaptation.

This thesis is compatible with TO, but limited to the biological plane. For TO, every element is composed of previous elements from the primordial phases of cosmogony. Life and cognition are late products of a much deeper chain.

Propositionally, Liu's sensory evolution may be situated as a continuation of the universal composition described by TO.

6.7. Substance Transcendent to the Quantum

The seventh axiom is the most decisive. According to TO, there is no existential universe without substance transcendent to its quantum. Considering the definition provided by the user, this transcendent substance is the knowledge or information produced in atomic relations, equivalent to atomic radiations.

Liu constantly works with information. His model states that perception is informational compression; that quantum mechanics is a calculus of knowledge under channel restriction; and that different civilizations may inhabit incommensurable phenomenal worlds. There is, therefore, strong informational convergence.

But there is a central difference: in Liu, information tends to appear as content decoded by the observer. In TO, atomic information/radiation has ontological status. It is not merely mental representation; it is transcendent substance produced in relations among elements.

Thus, full integration would require Liu to stop treating information only as perceptual interface and to recognize it as a real substance of universal constitution.

7. Phenomenic Elements, Perceptual Channels, and Decoding Operators

The category of phenomenic element is fundamental to TO. The phenomenic element is not merely an empirical object. It is a unit that appears because it has been logically distinguished, relationally bounded, informationally composed, and observationally stabilized.

Liu describes something similar when he states that observed reality is the product of a function D . This function selects certain dimensions, discards others, and constructs a phenomenal space O . The difference is that Liu understands this process mainly as a result of sensory evolution. TO understands it as part of a broader ontology.

From TO, the following translation can be proposed:

- Γ : broad informational field or derived pre-phenomenal domain;
- D : inducer-reducer operator of the observing element;
- O : stabilized phenomenal field;
- kernel of D : zone of non-phenomenal conversion;
- image of D : set of phenomenally accessible elements;
- observer: Unit of Reason or cognizing element;
- projected information: transcendent substance in cognitive form.

This translation makes it possible to incorporate Liu without abandoning the priority of TO. Human perception does not create reality, but organizes a field of phenomena from already existing relations. The visible world is a partial image of objectivity, not its totality.

8. Inducer Effects and Informational Reduction of Observable Reality

The Inducer Effects of TO may be used to reinterpret Liu's model. The analyzed article describes perception as a process of *coarse-graining*, that is, as reduction, compression, and selection of information. This language is extremely close to what, in TO, may be described as the Reducer Inducer Effect.

The Reducer Inducer Effect would be the process by which a broader informational field is converted into simplified phenomenal form. The human perceptual channel does not access the totality of Γ ; it reduces, filters, and stabilizes. This explains why the world appears continuous at certain scales, discrete at others, causal under certain conditions, and probabilistic at quantum levels.

Liu interprets quantum mechanics as an efficient calculus of human knowledge limited by the photoelectric channel. TO could partially accept this formulation, provided that quantum information is not reduced to the human mind. Uncertainty, entanglement, and wave-particle duality would not be merely perceptual illusions, but expressions of deeper informational processes in which the substance transcendent to the quantum manifests itself as radiation, relation, and knowledge.

Thus, Liu's operators D may be understood as specific cases of Inducer Effects. They induce a phenomenality compatible with the structure of the observer. But induction is neither free nor arbitrary: it is subject to the Absolute Truths of TO.

9. The Cosmogonic Theorem of TO before Liu's Hypothesis

Liu's article does not formulate a complete cosmogony. It does not explain the origin of the universe from Nothingness; it does not deduce the emergence of boundaries; it does not describe the genesis of elementary compositions; it does not develop the passage of the cosmological Eras.

His hypothesis begins when reality, organisms, perceptual channels, and evolution already exist. Therefore, his contribution is located in a later phase of universal history. TO, on the other hand, begins earlier: in Nothingness as primitive mathematical essence, in the tension of the Antagonistic Tempus, in logical rails, in plasma currents, in centrifugation, in the formation of elements, and in the emergence of Units of Intelligence.

Liu's hypothesis can be integrated into the cosmogonic theorem of TO in the following way:

1. Nothingness founds primitive mathematical possibility.
2. The Antagonistic Tempus inaugurate original tension.
3. Logical rails organize the possibility of differentiation.
4. Logical currents and plasmas structure fields of composition.
5. The Centrifugal Era stabilizes movements, masses, cycles, and environments.
6. Atomic relations produce information/radiation as transcendent substance.
7. Life emerges as complex phenomenic organization.
8. Units of Intelligence arise as systems capable of decoding, organizing, and transforming information.
9. Liu's sensory operators appear as late functions of phenomenal decoding.

Thus, Liu does not replace TO; he provides a partial theory of the cognitive phase of the universe.

10. The Cosmological Eras of TO and the Location of the Sensory–Dimensional Model

10.1. Antagonistic Era

The Antagonistic Era corresponds to original tension. Liu does not reach this stage. His Γ is already a structured domain. Therefore, the relation is indirect.

Even so, when Liu speaks of chaos, informational ground, and the absence of absolute order, an analogy may be established with a reality prior to phenomenal stabilization. But this analogy must be cautious, because TO has its own logic of anteriority.

10.2. Era of Logical Rails

The Era of Logical Rails is one of the most compatible with Liu. The maps D , the projections, the compression functions, and the trajectories γ in Γ resemble formal pathways through which information may become phenomenon.

In TO, logical rails are prior to biological perception. In Liu, the rails appear as perceptual functions. Integration requires recognizing that the sensory channel is a late actualization of the logical rails of the universe.

10.3. Era of Logical Currents of Tertiary Plasma

Liu does not work directly with plasma. However, his theory of informational flows, projections, and decodings may be approximated to logical currents as a dynamics of conduction and reorganization.

Compatibility in this case is more interpretive than literal.

10.4. Centrifugal Era

Here the compatibility is clear. Liu highlights planetary conditions such as centrifugal force, tides, day-night cycles, light intensity, and planetary speed as relevant factors for the emergence of intelligent life. This directly dialogues with TO's understanding that movements, rotations, differentiations, and cosmic stabilizations are fundamental to the formation of complex phenomenic environments.

The Centrifugal Era, in TO, creates conditions of distribution, separation, and stabilization. In Liu, such conditions make possible the evolution of the human photoelectric

channel.

10.5. Era of Units of Intelligence

This is the Era in which Liu's article best fits. His hypothesis deals with organisms, perception, cognition, civilizations, and world-models. The Unit of Intelligence, in TO, may be understood as an element capable of reorganizing information, producing knowledge, and acting upon the universe.

Liu describes exactly this process in another language: organisms and civilizations decode the universe according to their channels, compete for information and matter, and construct physics, technology, and culture.

TO may therefore read Liu as a theorist of the dimensional phenomenology of Units of Intelligence.

11. Quantum Mechanics, Observation, and Transcendent Informational Substance

A central part of Liu's article is his attempt to reinterpret quantum mechanics. For him, phenomena such as uncertainty, interference, delayed choice, and nonlocality would not be ultimate properties of reality, but effects of informational compression produced by the human perceptual channel.

This reading approaches philosophical debates initiated by the quantum revolution. Heisenberg had already shown that modern physics profoundly alters the relation between observer and observed (Heisenberg 1958). Experiments associated with Bell inequalities, such as those of Aspect, intensified the difficulty of maintaining a simple local-realist view (Aspect 1982). Bohm, in turn, proposed an implicate totality, in which manifest phenomena derive from a deeper order (Bohm 1980).

Liu approaches Bohm when he suggests that entangled particles would be a single totality in Γ , artificially separated in phenomenal projection. This hypothesis dialogues with TO insofar as TO also refuses the idea that phenomenic appearance exhausts the reality of the element.

However, TO would make an important correction. Quantum mechanics cannot be reduced merely to a defect of the human channel. The quantum, in TO, is linked to the production of a transcendent substance: the knowledge or information produced in atomic relations, equivalent to atomic radiations. Thus, uncertainty and entanglement would not be merely perceptual limitations; they would be indications that atomic reality

produces information that transcends its purely local quantification.

Liu contributes by showing that all physical knowledge depends on channel. TO contributes by showing that the channel itself only exists because there is an informational substance prior to and transcendent to the quantum.

12. Fermi, Cognitive Incommensurability, and the Plurality of Phenomenal Worlds

Liu's proposed solution to the Fermi paradox is one of the most original parts of the article. According to him, extraterrestrial civilizations could exist but remain undetectable because their decoding operators would be radically different from human ones. Their signals would fall into the blind spot of the human channel, that is, into the kernel of D_{photo} .

This hypothesis is highly compatible with a TO reading of phenomenic plurality. If each element possesses its own aura, boundary, and relation to informational substance, distinct civilizations may constitute very different observable worlds, even if they coexist in the same universe.

TO, however, would avoid concluding that there are multiple physical universes without connection. What exists are multiple possible phenomenalities within a deeper relational objectivity. Cognitive incommensurability does not annul the ontological unity of the universe; it only shows that different Units of Intelligence may access different bands of transcendent information.

This reading allows Liu to be brought close to Kuhn. If scientific paradigms shape what a community recognizes as problem, method, and solution, perceptual channels would shape even more deeply what a civilization recognizes as the physical world (Kuhn 1962). Liu radicalizes the Kuhnian thesis by moving it from the history of science to cosmic biology.

13. Compatibilities, Tensions, and Possibilities of Integration

13.1. Main Compatibilities

The main compatibilities between Liu and TO are:

1. rejection of naive realism;
2. centrality of information;
3. mediation between reality and phenomenon;
4. importance of observation;
5. plurality of phenomenal worlds;
6. possibility of a physics conditioned by the mode of access to the real;
7. openness to dialogue among biology, physics, cosmology, and intelligence.

These points make Liu's article strongly dialogical with TO, especially with recent developments concerning modal ontology, testability, and operational bridges (Cabannas and Silva 2026a; Cabannas and Silva 2026b).

13.2. Main Tensions

The main tensions are:

1. Liu presupposes Γ , but does not deduce its modal necessity.
2. The model may reduce physics to perceptual interface.
3. Information is not fully ontologized as transcendent substance.
4. Observation is not formulated as a modal requirement of full existence.
5. Cosmogony is absent.
6. Some biological generalizations remain speculative.

These tensions do not invalidate the dialogue. On the contrary, they indicate points at which TO may offer greater rigor.

13.3. Possibility of Integration

The most appropriate integration is to consider Liu's hypothesis as a regional theory of TO. It would not explain the origin of the universe, but it would explain how certain Units of Intelligence decode the already constituted universe.

In this integration:

- Γ would be a derived informational domain;
- D would be a Reducer Inducer Effect;
- O would be the phenomenal field;
- the sensory system would be an operational cognitive aura;
- human physics would be a partial phenomenal stabilization;
- atomic information/radiation would be the transcendent substance that makes decoding itself possible.

14. Final Considerations

Guanyi Liu's article constitutes a bold hypothesis on the relation among sensoriality, dimensionality, and physics. Its greatest contribution lies in proposing that sensory systems do not merely register the world, but organize phenomenal worlds from a broader domain of reality. This thesis is especially relevant for dialogue with the Theory of Objectivity, because both approaches recognize that observed reality is mediated by relation, information, boundary, and structuring.

The analysis has shown that Liu strongly dialogues with TO on the themes of phenomenality, information, observation, cognitive incommensurability, and the emergence of Units of Intelligence. However, his hypothesis remains limited because it does not develop a modal cosmogony, does not deduce Γ from necessary truths, does not formulate observation as a full ontological condition, and does not recognize transcendent substance in the proper terms of TO: knowledge or information produced in atomic relations and equivalent to atomic radiations.

The most productive contribution of Liu's article to TO lies in offering a formal language for processes of phenomenic decoding. His operators D , kernels, images, and projection maps may be reinterpreted as auxiliary instruments for thinking the Inducer Effects, especially the Reducer Inducer Effect, in Units of Intelligence.

On a scale of dialogue with the Theory of Objectivity, the article receives the score:

8.3/10

This score expresses a high, but not full, degree of dialogue. The article is highly compatible as an auxiliary theory of cognitive phenomenality, but insufficient as a universal ontology or fundamental cosmogony. Its integration into TO would require subordinating the sensory–dimensional hypothesis to the modal discipline of the Seven Absolute

Truths, to transcendent informational substance, and to the cosmogonic theorem of the Theory of Objectivity.

Appendix in TO Style

Appendix A — TO Formulation of the Sensory–Dimensional Hypothesis

Interpretive Axiom A1: No sensory system observes the totality of the universe, but only the phenomenal band compatible with its relational aura.

Interpretive Axiom A2: Every perceptual channel is an inducer-reducer effect that converts transcendent informational substance into phenomenal image.

Interpretive Axiom A3: The world observed by a Unit of Intelligence is not illusion, but partial stabilization of relational objectivity.

Interpretive Axiom A4: The physics of a civilization is the set of regularities that its inducer channel is able to stabilize from the informational relations of the universe.

Interpretive Axiom A5: Distinct civilizations may be mutually invisible when their inducer channels convert non-coincident bands of informational substance.

Appendix B — Conceptual Translation from Liu to TO

Concept in Liu	Reinterpretation in TO
Γ , high-dimensional noumenal reality	Derived informational field, posterior to Nothingness and to logical rails
D , decoding operator	Reducer Inducer Effect
O , phenomenal space	Field of stabilized phenomonic elements
Kernel of D	Zone of non-phenomenal conversion
Human photoelectric system	Human cognitive aura as perceptual channel
Quantum mechanics as calculus of knowledge	Partial formalization of transcendent information under observational restriction
Alien incommensurability	Divergence among civilizational auras and inducer channels
Sensory evolution	Late development of Units of Intelligence

Appendix C — Concluding Proposition in TO Style

Liu's hypothesis may be received by the Theory of Objectivity as a mathematical phenomenology of Units of Intelligence. Its error does not lie in affirming that perception

structures the observed world, but in not deducing perception from the prior modal order that makes any observation possible. TO preserves the value of the sensory–dimensional hypothesis, but reinscribes it within a deeper ontology: before the channel there is the element; before the element there is boundary; before boundary there is distinction; before distinction there is Nothingness as primitive mathematical essence; and, without the transcendent substance of the information produced in atomic relations, no existential universe could appear, be observed, or become knowledge.

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