

# The Tautological Universe

Ontological Substitution and the Failure of Emergent Foundations

Elad Genish

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## Abstract

Modern foundational theory is plagued by a recurring methodological error: the attempt to explain fundamental phenomena (time, space, consciousness) by redefining them as derived statistics of a “more fundamental” substrate that surreptitiously encodes the very properties being explained. We term this error *Ontological Substitution*: the practice of smuggling a target phenomenon into the axioms of its own derivation under a different name.

This paper unifies critiques of Thermal Time, Information Gravity, and Illusionism in the philosophy of mind, demonstrating that these frameworks share a single fatal flaw: they are not explanations, but tautologies. By exposing the hidden circularity in these approaches, we argue that persistence, ordering, and traversal cannot be eliminated from the basement of reality. They must instead be accepted as irreducible conditions for a consistent ontology.

## 1. Introduction: The Shell Game

The history of reductionism is the history of explaining the complex in terms of the simple. However, much contemporary work under the banner of “emergence” has inverted this project. Instead of reducing complexity, it explains the fundamental in terms of the complex while treating that complexity as if it were neutral.

This pattern appears across domains:

- **Physics:** Time is derived from “coherence” or “information geometry,” despite coherence requiring ordering.

- **Cosmology:** Gravity is derived from “information” or entropy, despite information presupposing distinction.
- **Philosophy of Mind:** Consciousness is dismissed as an “illusion,” despite illusion presupposing experience.

In each case, the theorist posits a supposedly structureless substrate—a Hilbert space, a holographic boundary, or a neural network—and claims to derive a target phenomenon from it. Upon inspection, the substrate is not neutral. It has been pre-loaded with the very structure the theory claims to explain.

This is not reduction. It is a shell game. We call this move *Ontological Substitution*.

## 2. The Physics of Tautology

### 2.1 The Hidden Clock in “Timeless” Physics

The most prominent victim of ontological substitution is time. Theories such as the Thermal Time Hypothesis and Shape Dynamics claim to eliminate time from the fundamental ontology.

**The Claim:** Time is emergent. It is the gradient of a coherence function  $C$ , or the path of “best matching” between static configurations.

**The Substitution:** A gradient presupposes direction. “Best matching” presupposes a metric of comparison. To assert that state  $A$  precedes state  $B$  because it is “more coherent” requires an ordering principle that already functions as time.

**Verdict:** These frameworks do not derive time. They assume an ordered foliation of states and rename it “geometry.” The claim reduces to: “*Time does not exist; only an ordered sequence of events exists.*” This is a distinction without ontological difference.

### 2.2 The Homunculus in Information-Based Gravity

Entropic and holographic approaches to gravity treat information as a physical primitive.

**The Claim:** Spacetime and gravity emerge from entanglement entropy or information processing on a boundary.

**The Substitution:** Information is inherently relational. Shannon entropy measures uncertainty relative to an observer; von Neumann entropy is defined relative to a basis. Information requires distinction between system and environment, knower and known.

**Verdict:** By treating information as primitive, these theories smuggle spatial separation and relational structure into the foundations. One cannot derive space from information,

because information presupposes a space of distinguishable states.

### 3. The Philosophy of Tautology

The same substitution error appears in the philosophy of mind, particularly in Illusionism.

#### 3.1 The Illusion of the Illusion

**The Claim:** Phenomenal consciousness does not exist; it is an illusion generated by cognitive monitoring systems.

**The Substitution:** An illusion is an experiential category. A camera cannot have an illusion; it can only register error. To experience an illusion requires a subject for whom the illusion appears as reality.

**Verdict:** Illusionism attempts to explain the subject by invoking a concept that presupposes a subject. It explains experience by assuming an experiencer. The theory is circular.

### 4. A Unifying Diagnostic: The Metric Test

We propose a general diagnostic for detecting ontological substitution: **The Metric Test**.

**Metric Test:** If a theory claims to derive phenomenon  $X$  from substrate  $Y$ , ask whether the definition of  $Y$  requires a metric, ordering, or relational structure isomorphic to  $X$ .

Applied examples:

- Does coherence ( $Y$ ) require an ordering metric (time,  $X$ )? Yes. Time is not derived.
- Does information ( $Y$ ) require distinction or separation (space,  $X$ )? Yes. Space is not derived.
- Does illusion ( $Y$ ) require experience (consciousness,  $X$ )? Yes. Consciousness is not eliminated.

If  $Y$  depends on a metric of  $X$ , then  $X$  is not emergent. It is presupposed.

### 5. What Genuine Emergence Would Require

This critique is not an argument against emergence *per se*. It is an argument against *tautological emergence*.

A genuine emergent derivation must satisfy the following condition:

No metric, ordering principle, or relational structure isomorphic to the target phenomenon may appear in the axioms of the substrate. Any such structure must itself be dynamically generated or shown to arise without presupposition.

Most contemporary “emergent” frameworks fail this test.

## 6. The Alternative: Acceptance of the Primitive

If we abandon the shell game, we are left with a starker but honest ontology. Certain dynamics must be accepted as invariant conditions of existence.

This corresponds to the *Conditions of Persistence* framework (Genish, 2026):

- **Time** is not a gradient; it is traversal (the impossibility of halt).
- **Space** is not a graph; it is constraint (the impossibility of total freedom).
- **Identity** is not an illusion; it is an attractor (the impossibility of dissolution).

These are not derived objects. They are the rules of the game.

## 7. Conclusion: The End of “Nothing But”

The era of “Nothing But” explanations—“time is nothing but heat,” “mind is nothing but loops”—has failed because it relies on circular definitions.

We cannot explain the engine by pointing to the exhaust. Coherence, entropy, and illusion are byproducts of reality, not its generators. The engine is the instability of zero and the inevitability of recursion.

Any theory that claims to generate the world from a static, neutral substrate is misrepresenting its ingredients. It is time to check the pockets of the magician.