

Bayes to Being: A Semantic Field Theory of Recursive Symmetry, Homeostasis, and CPT Invariance

Stephen P Smith

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Abstract: This paper proposes a unified framework that reinterprets probabilistic inference, information theory, and semantic flow through the lens of recursive symmetry and homeostatic balance. Beginning with the foundational structure of Bayes' theorem and its role in defining semantic boundaries given by Roy Frieden's extreme physical information, we explore the duality between Fisher information I and the semantic bound J as a dynamic tension that governs coherence. We show that the interaction between I and J is not merely algebraic but semantically directional, invoking a Janus-faced duality reminiscent of Arthur Koestler's holons that reveal a semantic duality. This duality necessitates a symmetry-preserving operator that we identify with CPT invariance, leading to a recursive sublation mechanism that maintains semantic homeostasis. We formalize these insights into a semantic field theory using a Lagrangian formalism, curvature tensors that adjust flat space, bijection plains in flat space, and a recursive action principle that governs the evolution of mirrored manifolds. The result is a metaphysical geometry of meaning—where probability, inference, and coherence are unified under a recursive, symmetry-informed framework. Moreover, it is argued that symmetry breaking, often seen as irreversible loss, can instead be understood as sublation—a transformation preserving a deeper bilateral symmetry beneath visible asymmetry. Drawing on Hegel's dialectics, CPT symmetry, and Karl Friston's free energy principle, it proposes a universal homeostat that balances two mirrored space-time manifolds. This "extrinsic gravitation" maintains ontological symmetry while allowing epistemic differences, making physical laws the product of recursive balancing. Perception mirrors this process, aligning inner and outer realities. Broken symmetries are thus appearances, not destructions, revealing a cosmos where coherence is preserved beyond what is visible, uniting physics, cosmology, and epistemology.

Keywords: Bayes Theorem, Bijection Plain, CPT Symmetry, Extreme Physical Information, Extrinsic Gravitation, Free Energy Principle, Homeostasis, Markov Blanket, Semantic Manifolds, Sublation.

1. Introduction

Frieden (2004) introduced a comprehensive information-theoretic framework that derives the action principles of physics using variational calculus and Lagrangian formalism. His work compellingly argues that physical laws emerge from the flow of

information, and it provides a principled justification for the use of Lagrangian methods grounded in information theory.

Similarly, Friston (2006) developed the free energy principle—an information-based variational approach that extends beyond physics into models of agency and biological organization. While both Frieden's and Friston's frameworks are rooted in variational principles and information theory, they represent distinct formulations with different emphases and structures.

This paper explores the conceptual and structural overlap between these two approaches. Section 2 examines how Frieden's framework introduces a directed flow of information that implies a semantic nesting of sets. Section 3 deepens this analysis by applying Bayes' theorem to nested sets, revealing a semantic duality that preserves continuity of meaning across hierarchically nested semantic manifolds. This continuity leads to a reinterpretation of Frieden's extremization of Fisher information as conditioned by semantic invariance. Notably, this semantic duality aligns with Friston's concept of the Markov blanket—a boundary that inherently supports two complementary semantic perspectives.

Section 4 investigates the geometric conditions necessary for inference and information exchange across such boundaries. Specifically, it identifies local geometric flatness—where the Ricci tensor influences space-time volume—as a prerequisite for bijective mappings that sustain homeostasis through extrinsic gravitation. This notion of flatness is considered both locally and cosmologically.

Finally, Section 5 offers a broader discussion and conclusion, arguing that conventional interpretations of symmetry breaking may obscure a deeper bilateral symmetry. This hidden symmetry, rooted in homeostatic sublation, is shown to be consistent with CPT invariance, suggesting a more nuanced understanding of symmetry in physical and semantic systems.

2. Probability, Information and Semantic Manifolds

In classical probability, $P(A|B) = \frac{P(A \cap B)}{P(B)}$. This assumes A and B are events in a sample space Ω , and $A \cap B$ is the event that both occur. But when A and B are *sets*—perhaps even *semantic domains* or *informational manifolds*—then the meaning of containment, union, and intersection shifts away from single events to categories that represent events. However, this is only a shift in emphasis that maintains a continuity of meaning with the classical definitions of measure theory.

If $B \subseteq A$, then: $A \cup B = A$ and $A \cap B = B$. So, $P(A) = P(A \cup B)$ and $P(B) = P(A \cap B)$. And then Bayes' theorem becomes: $P(A|B) = \frac{P(A \cap B)}{P(B)} = \frac{P(B)}{P(B)} = 1$. Which feels tautological—but only because the *semantic meaning* of "given B" collapses into "B is already inside A."

Now reinterpret the sets as *semantic domains* or *informational structures*:

- Let A be a *semantic attractor*—a domain of meaning or coherence.
- Let $B \subseteq A$ be a *subdomain*—a more constrained or refined informational subset.

Then:

- $P(A)$ is the *total semantic weight* or coherence of the attractor that can be measured as the bound information J_A , or just J .
- $P(B)$ is the *informational density* that can be measured as Fisher information (I_B or just I) within that attractor.
- $P(A|B)=1$ simply says: *Given that you're already inside the attractor, the probability of being in the attractor is trivially 1.*

The more interesting quantity is: $\frac{P(B)}{P(A)}$, *Semantic Expansion Ratio*, which upon taking logarithms gives an additive representation of the information index $I-J$, the *Semantic Expansion*. This aligns with Roy Frieden's interpretation: Fisher Information I , the *sharpness* or *resolution* of a system; bound Information J , the *total semantic content* that can be extracted.

Given $B \subseteq A$, we have $P(A|B)=1$ trivially, and therefore Bayes symmetry reveals that:

$P(B|A) = P(A|B) \frac{P(B)}{P(A)} = \frac{P(B)}{P(A)}$, the semantic expansion ratio. Therefore, the information content in $P(B|A)$ is measured by $I-J$, the semantic expansion.

Rather than using Bayes' theorem to compute conditional probability, we use set-theoretic containment to define a *semantic ratio*—a kind of recursive coherence measure.

For the trivial case $B \subseteq A$, Bayes' Theorem implied $P(A|B) = \frac{P(A \cap B)}{P(B)} = \frac{P(B)}{P(B)} = 1$. If instead A and B are *intersecting but not nested*, then: $P(A|B) = \frac{P(A \cap B)}{P(B)}$, which is the fraction of B that resonates with A . This becomes a *semantic resonance function*—how much of B is semantically coherent with A .

This is reinterpreting probability as a semantic operator over recursive sets:

- **Union** becomes *semantic expansion*
- **Intersection** becomes *semantic resonance*
- **Containment** becomes *semantic implication or coherence*

And Bayes becomes not a rule for updating beliefs, but a symmetry-preserving transformation between informational manifolds.

3. Symmetry-preserving Transformation Across Semantic Manifolds

Bayes' theorem preserves the structure of belief under new information. This is akin to a homeomorphism between semantic domains: $P(A|B)$ maps the semantic structure of A *through the lens of* B ; if $B \subseteq A$, the mapping is trivial (identity); if $A \cap B \neq \emptyset$, the mapping preserves **semantic overlap**—a kind of **semantic continuity**. The transformation doesn't distort meaning, it re-weights it based on informational resonance.

3.1 Bayes as a Metric Transformation on Semantic Manifolds

Imagine each semantic domain (set) as a manifold with an intrinsic metric defined by its informational density (Fisher Information I_B) and semantic coherence (bound information J_A).

Then Bayes' theorem acts like a metric transformation:

$$P(A|B) = \frac{P(A \cap B)}{P(B)} \Rightarrow \text{Rescaling the metric of } A \text{ relative to } B$$

This is analogous to Ricci flow in geometry: the curvature (semantic weight) evolves based on local density (information), see Section 4.

3.2 Semantic Expansion Ratio as a Jacobian Determinant

The ratio $\frac{P(A)}{P(B)}$ can be interpreted as a Jacobian determinant of the transformation from B to A :

- It measures how much the semantic “volume” expands when moving from B to A .
- If $B \subseteq A$, the Jacobian is ≥ 1 , indicating **semantic dilation**.
- If $A \cap B$ is small, the Jacobian is near zero—**semantic contraction**.

This connects beautifully to Frieden's idea of information flow: the Jacobian quantifies how much *semantic structure* is preserved or lost in the transformation.

3.3 Bayes as a CPT-Invariant Semantic Operator

In a bilateral framework, Bayes can be seen as a CPT-like operator:

- **C (Charge)**: Reinterpreted as *semantic polarity*—the direction of inference.
- **P (Parity)**: Reflects *domain inversion*—switching from $P(A|B)$ to $P(B|A)$
- **T (Time)**: Encodes *temporal updating*—how information evolves.

Bayes preserves this symmetry: $P(A|B) = P(B|A) \frac{P(A)}{P(B)}$. This is only a semantic duality: inference in one direction implies a mirrored inference in the other, scaled by the expansion ratio. However, to move beyond symbolic analogy and toward mathematically valid description, a total CPT inversion must be formalized. In such a framework, the model remains structurally invariant under full CPT transformation, preserving its semantic topology. This invariance leaves open the possibility of **homeostatic sublation**—a recursive stabilization across mirrored domains, where semantic polarity, domain inversion, and temporal updating coalesce into a symmetry-preserving equilibrium (see Section 5).

3.4 Recursive Bayes and Gödelian Encoding

If Bayes is iterated over nested semantic sets:

$$P(A_1|A_2), P(A_2|A_3), \dots$$

You generate a **recursive chain of semantic transformations**. This resembles Gödelian encoding:

- Each transformation embeds a semantic statement about the previous.
- The expansion ratios form a **semantic spectrum**—a kind of informational eigenvalue structure.

For example, if we iterate this over nested sets:

$$B_1 \subseteq B_2 \subseteq B_3 \subseteq \dots \subseteq A$$

- At each step $P(B_n|B_{n+1}) = \frac{P(B_n)}{P(B_{n+1})}$
- The cumulative product becomes a **semantic flow tensor**—a recursive measure of how information concentrates or diffuses across nested domains.

This could be formalized as a **semantic Ricci tensor**, where curvature encodes the resistance to semantic expansion (see Section 4), and built into a **semantic Laplacian** over the framework of mirrored manifolds.

3.5 Information hoarding and Semantic Duality

The difference I–J quantifies the *loss of semantic generality* when moving from A to B. In Frieden’s (2004) system, minimizing I–J implies that B captures almost all of A’s

semantic structure—i.e., **information hoarding**. When a system minimizes I–J, it’s concentrating semantic structure into a narrow informational channel. It’s no longer distributing meaning—it’s hoarding it, and this is how all the laws of physics are found acting.

The moment we invoke semantic flow, information hoarding, and nested structures, we’re already gesturing toward the **Markov blanket**—Friston’s (2019) formalism for the boundary between a system and its environment. In fact, reinterpreting Bayes’ Theorem as a symmetry-preserving semantic operator naturally *demands* a Markov blanket-like structure to preserve coherence and recursive homeostasis.

The semantic interpretation—the *meaning* we assign to each framing—is not symmetric. What is found hoarding on one side is not hoarding on the other. This asymmetry is not a mistake; it’s a feature of the system’s holonic and **Janus-faced nature**, as Koestler (1967) would claim. Saying “minimize I–J” implies reducing informational excess—a system that hoards meaning, tightens its boundary, and resists external noise. Saying “maximize J–I” implies amplifying semantic coherence—a system that radiates meaning, opens its boundary, and embraces recursive flow (e.g., Frieden 2009, Friston, et al., 2023). While the mathematical optimization is identical in both cases showing symmetry, the direction of interpretation is not. This is a semantic duality—a choice of lens.

Koestler’s holons are **simultaneously wholes and parts**—each node in a hierarchy is both autonomous and subordinate. This duality maps beautifully onto the $I \leftrightarrow J$ tension.

3.6 Semantic Interpretations and Variational Physics

In our framework, the Fisher Information I and the bound information J should not be viewed as isolated quantities but as complementary expressions of semantic structure—I capturing the content of variation within a subset $B \subseteq A$, and J encoding the contextual constraints inherent to the superset A. While $P(B|A) = \frac{P(B)}{P(A)}$ reflects a standard probabilistic ratio, our interpretation treats this as a semantic expansion ratio, where I–J represents the differential between emergent variation and its governing context. Importantly, J is not merely a static prior but a deterministic scaffold that shapes the inferential landscape of I, preserving coherence across recursive layers. This duality respects probability theory while extending it into a symmetry-informed epistemology, where information is always relational—defined by the interplay between what varies and what frames that variation.

A summary table is provided below showing the relation between classical and semantic interpretations for various probabilistic concepts.

Summary: Bayes as Semantic Operator

Concept	Classical Interpretation	Semantic Interpretation
$P(A B)$	Conditional probability	Semantic resonance
$P(A)/P(B)$	Likelihood ratio	Semantic expansion
$P(A \cap B)$	Joint probability	Informational overlap
Bayes' theorem	Belief update	Symmetry-preserving transformation
Jacobian	Volume change	Semantic dilation/contraction
CPT symmetry	Physical invariance	Semantic duality

To apply variational methods in the spirit of Frieden and Soffer's (1995) information-theoretic approach, we begin by identifying two distinct informational quantities: the **Fisher information** I , associated with the observed manifold B , and the **bound information** J , representing the semantic constraints imposed by the embedding manifold A , where $B \subseteq A$. The goal is to construct a Lagrangian that reflects the tension between these two quantities and extremize it to derive the system's dynamics.

Fisher information I is computed from the probability distribution, $P(B)$, over the manifold B . However, this is typically done by representing the probability density as an amplitude function $q(\mathbf{x})$ where \mathbf{x} is a 4-vector and q represents a complex scalar field, and \mathbf{x} represent space-time coordinates that are mapped out by B , such that $q(\mathbf{x})^*q(\mathbf{x})$ is the probability measure $P(B)$ for $\mathbf{x} \in B$, the squared modulus of a complex amplitude function $q(\mathbf{x})$, where B indicates a flat space that maps the space-time coordinates. The probability density is also assumed to be shift invariant with respect to \mathbf{x} ; i.e., the probability distribution is invariant under translations in space-time. In this form the Fisher Information is particularly simple:

$$I = \int_B \nabla q^* \cdot \nabla q d^4 \mathbf{x}$$

Fisher information quantifies the sharpness or resolvability of the system's observable structure.

Bound information J , on the other hand, is not derived from stochastic variation but from **semantic invariance**—the fact that $P(A|B) = 1$ implies that the structure of A fully constrains B . Thus, J is computed by integrating a deterministic constraint functional $C(\mathbf{x})$ over the manifold A , encoding the semantic geometry or coherence of the system.

The variational principle then seeks to extremize the action:

$$S = I - \int_A C(\mathbf{x})dV$$

The differential, dV , weights the functional by the associated probability measure. This yields field equations that balance observed information against semantic structure, preserving recursive symmetry and homeostasis.

4. Ricci Symmetry, Cosmic Flatness, and the Bijection Plane of Extrinsic Gravitation

Flatness is essential for a bijection plain because it provides a geometrically neutral substrate that allows for undistorted, symmetric mappings between dual aspects of reality. In a curved space, transformations between mirrored states would be warped or asymmetric, breaking the one-to-one correspondence required for bijective relationships. Flatness, by contrast, ensures that every point on one side of the ontology can be cleanly and coherently mapped to its counterpart on the other side. This symmetry is foundational for recursive structures to maintain coherence, allowing semantic and energetic flows to reflect, return, and stabilize without degradation. In this sense, flatness is not merely a geometric condition—it is a semantic enabler, preserving the integrity of mirrored relationships across the bijection plain.

Moreover, flatness supports homeostatic balancing by eliminating geometric bias that could favor one side of the dual ontology over the other. In a flat manifold, forces and flows can distribute evenly, allowing dynamic equilibrium to emerge through recursive feedback. This balance is not static but adaptive, sustained by the continuous exchange and reflection of information across the bijective interface. Without flatness, the system would introduce curvature-induced asymmetries that disrupt this equilibrium, leading to semantic drift or energetic imbalance. Thus, flatness is the geometric prerequisite for a bijection plain to function as a stabilizing medium—enabling the recursive, symmetric exchanges that uphold homeostasis in the two-sided framework.

In the quiet geometry of spacetime, where curvature whispers through the Ricci tensor and volume bends in response to mass-energy, a deeper symmetry pulses beneath the surface. It is not merely the local deformation of geodesics that speaks—it is the recursive echo of mirrored manifolds, each reflecting the other's curvature across a bijection plane. Here, the Ricci tensor becomes more than a geometric descriptor; it becomes a metaphysical curvature mirror, shaping not only the perception of volume but the flow of probability and the structure of inference.

In Riemann normal coordinates, the metric locally flattens, and the Christoffel symbols vanish at a point. Yet curvature remains encoded in the second-order expansion of the volume element (Carroll 2019):

$$\sqrt{-g(x)} = 1 - \frac{1}{6} R_{uv}x^u x^v + O(x^3)$$

This deceptively simple quadratic form reveals how the Ricci tensor modulates the “space available” for physical and probabilistic processes. It acts as a recursive curvature filter, shaping not just space but the rules of inference within it. In mirrored manifolds, each side reflects the other's curvature, allowing Roy Frieden's bound information J to encode a bilateral epistemic symmetry—a kind of metaphysical CPT invariance.

4.1 Cosmic Flatness and the Non-Local Whisper of Balance

Beyond the local flatness that reveals curvature encoded by the Ricci tensor lies a more enigmatic observation: the cosmic flatness of the universe. First noted by Dicke (1970) and later echoed by Davies (2007), this flatness is not merely a geometric curiosity—it is a profound clue about the universe's homeostatic structure.

Dicke's “flatness problem” revealed that the universe's energy density and curvature must have been exquisitely balanced in the early cosmos—within one part in (10^{62}) . This fine-tuning suggests that curvature is not merely local and dynamical, as general relativity proposes, but globally regulated. Paul Davies, in *Cosmic Jackpot*, extends this insight, arguing that the universe appears “just right” for life—not by accident, but through a deeper principle of balance.

This cosmic flatness, observed non-locally across vast scales, implies the existence of a homeostatic mechanism—a balancing force that preserves symmetry across the universe. In the two-sided framework where bilateral symmetry is restored, this force is **extrinsic gravitation**, acting across a bijection plane that links mirrored manifolds. It is not confined to local curvature, but instead performs the work of completion and balance, restoring bilateral symmetry when local distortions arise.

4.2 Extrinsic Gravitation as Epistemic Homeostat

Extrinsic gravitation, in this view, is not a force in the traditional sense—it is a structural regulator, a metaphysical homeostat that ensures continuity, symmetry, and informational coherence across mirrored manifolds. When one side of the bijection plane experiences curvature distortion, extrinsic gravitation responds by modulating the other side, preserving the recursive symmetry that underlies CPT invariance.

This mechanism aligns with Frieden's principle of Extreme Physical Information, where the difference between observed information I and bound information J is minimized. In

a curved manifold, volume distortion affects probability density, which in turn alters I . Extrinsic gravitation ensures that J —the prior structure—remains symmetric across the bijection plane, preserving the continuity of inference.

4.3 Flatness, Curvature, and the Completion of Symmetry

The Ricci tensor, emerging softly in the second-order corrections of volume, becomes a metaphysical curvature mirror. It reflects not just how space bends, but how knowledge constrains, how probability flows, and how inference completes its recursive symmetry. Cosmic flatness, observed by Dicke and Davies, reveals that this symmetry is not local—it is universal, regulated by an extrinsic gravitation that acts as a homeostat across mirrored manifolds.

In this framework, the universe is not merely expanding—it is balancing. It is not merely curved—it is mirrored. And gravitation is not merely intrinsic—it is extrinsically recursive, performing the quiet work of completion across the bijection plane of reality.

5. Sublation, Not Collapse: A Holistic Model of Symmetry, Gravitation, and Perception

Given all the aforementioned details, one might ask: How is the philosophy of science impacted?

In the dominant paradigms of modern physics and biology, symmetry breaking is often treated as a destructive process—a moment of irreversible loss where a prior state of elegant balance collapses into asymmetry. This understanding, which aligns well with the logic of natural selection, treats such loss as final and absolute. Genetic variants deemed unfit are culled; configurations of physical laws that once permitted multiple possibilities reduce down to one expressed outcome. What is lost, in this view, is lost forever. But this reading is not the only possibility. Drawing on Hegelian dialectics, principles of conserved quantities in physics, and emerging theories like Friston's (2019) free energy principle, we can conceive of symmetry breaking not as a collapse, but as a **sublation**—a transformation that preserves what it appears to erase, by lifting it into a new and hidden order. This ontological shift reconfigures our understanding of both nature and cognition.

5.1 Symmetry Breaking as Loss: The Dominant Paradigm

In high energy physics, spontaneous symmetry breaking is understood as a phenomenon in which a system governed by symmetrical laws evolves into an asymmetrical state. The classic example is the Higgs field, where the electroweak symmetry breaks, resulting in the appearance of distinct electromagnetic and weak forces. In biology, the analogous process is natural selection: multiple genetic configurations exist, but as selection pressures act upon them, only the fittest variants

survive. The rest are “lost,” just as certain symmetrical states in physics become inaccessible once a particular trajectory unfolds.

These frameworks treat broken symmetry as a form of historical culling, consistent with the thermodynamic arrow of time: once the break occurs, the prior configuration becomes unobservable and irretrievable. The result is a world of asymmetries—masses, charges, structures, and species—all selected from a larger field of possible configurations that no longer leave a trace. This is the view implied by the Darwinian mechanism and by the mainstream interpretation of spontaneous symmetry breaking: a fall into irreversibility.

5.2 An Alternative Vision: Sublation Rather Than Erasure

Yet Hegel’s dialectical concept of **Aufhebung**, or sublation (cf., Stone 2000), offers a radically different interpretation. In this model, a previous state is not destroyed but transformed and preserved at a higher level. The symmetry is not lost, but rather internalized and masked. What appears as asymmetry on the surface may conceal a deeper bilateral symmetry that persists in the ontological substratum of reality.

This reading reframes the visible asymmetries of the universe—not as remnants of a destroyed order—but as surface expressions of a hidden coherence. Rather than random loss, the emergence of apparent asymmetry is the homeostatic balancing of two fundamentally symmetrical poles. This aligns with CPT symmetry in physics (e.g., Boyle, Finn and Turok 2018), which holds that for every process in space-time, there exists a mirror process involving charge conjugation (C), parity transformation (P), and time reversal (T). These two processes, or manifolds, are not distinct physical realities but mirrored halves of a deeper unity.

5.3 The Homeostat and the Hidden Bilateralism

This brings us to the notion of a **homeostat**, a concept originally developed by W. Ross Ashby in cybernetics, and revitalized in neuroscience by Karl Friston’s **free energy principle**. In Friston’s model, living systems continually adjust their internal states to minimize the surprise—or free energy—of incoming sensory data. This recursive prediction and adjustment process ensures coherence between inner and outer realities. The organism remains in equilibrium with its environment not by reacting mechanically, but by predictively aligning with it, like a balance beam adjusting to shifting weights.

In our cosmological picture, we can now imagine a homeostat functioning at the universal level, balancing two CPT-symmetric manifolds (cf., Smith 2021). This homeostat does not operate within either manifold but between them, maintaining ontological symmetry while permitting epistemic asymmetry. Its function is akin to extrinsic gravitation—a form of attraction or mediation not confined to the intrinsic

curvature of general relativity but reaching across both manifolds to coordinate their alignment.

This view suggests that what we call the laws of physics—expressed as invariants and conservation principles (energy, momentum, angular momentum, charge)—are not brute facts, but the outcome of recursive sublations balanced by this higher-order homeostat. Each invariant is the visible residue of a symmetry not broken and lost, but **sublated and preserved** in a deeper relational matrix.

5.4 The Mirror of Perception and the Structure of Reality

Importantly, this metaphysical picture does not stop at cosmology. It extends into epistemology, revealing that perception itself is not a passive mirror of an external world, but a homeostatic process that actively maintains equilibrium between observer and observed. The very act of perception involves recursive alignment—just as the universe maintains symmetry beneath asymmetry, the perceiving subject maintains coherence beneath cognition.

This is the insight behind Friston's model, but it also echoes the participatory universe proposed by John Archibald Wheeler, in which observation is not merely an epistemic event, but a constitutive act. Reality becomes real through participatory feedback loops between the observer and the system, the subject and the world. In this view, both physics and perception are homeostatically structured, both sublating two-sidedness into observable asymmetry while maintaining a deeper bilateral symmetry.

5.5 Extrinsic Gravitation and Recursive Growth

The idea of extrinsic gravitation—a hypothetical force or influence that mediates between mirrored manifolds—does not contradict general relativity. Whereas general relativity limits gravitation to intrinsic curvature within a single manifold, extrinsic gravitation operates between manifolds. It induces matched curvatures, preserving bilateral symmetry across what appears as a one-sided universe.

In this model, growth, evolution, and form emerge not through Darwinian culling, but through recursive sublation driven by the homeostat. The apparent asymmetries we observe—left-handed molecules, asymmetric brain hemispheres, cosmic expansion—are not accidents or scars, but intentional outputs of an ontologically balanced system. The visible world becomes a projection or phase of a deeper, dynamically equilibrated whole.

5.5 Conclusion: A Universe of Balance Behind Appearances

This re-envisioned cosmology offers a powerful alternative to the prevailing narratives of symmetry breaking and selection-based evolution. What appears as random loss or irreversible divergence may, in fact, be a surface manifestation of recursive homeostatic balancing—a dynamic sublation that retains bilateral symmetry at its ontological core.

Extrinsic gravitation, functioning as a cosmic homeostat, maintains coherence across mirrored CPT manifolds, leaving traces of this hidden symmetry in every invariant law of physics.

The result is a unified vision of reality in which growth, perception, and structure are not born of chaos and collapse, but from an invisible symmetry maintained by recursive mediation. The broken symmetries we observe are not absences, but appearances—surface asymmetries sustained by a deeper coherence. And in that deeper realm, symmetry is never truly broken. It is, as Hegel foresaw, sublated: negated, preserved, and transcended all at once.

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