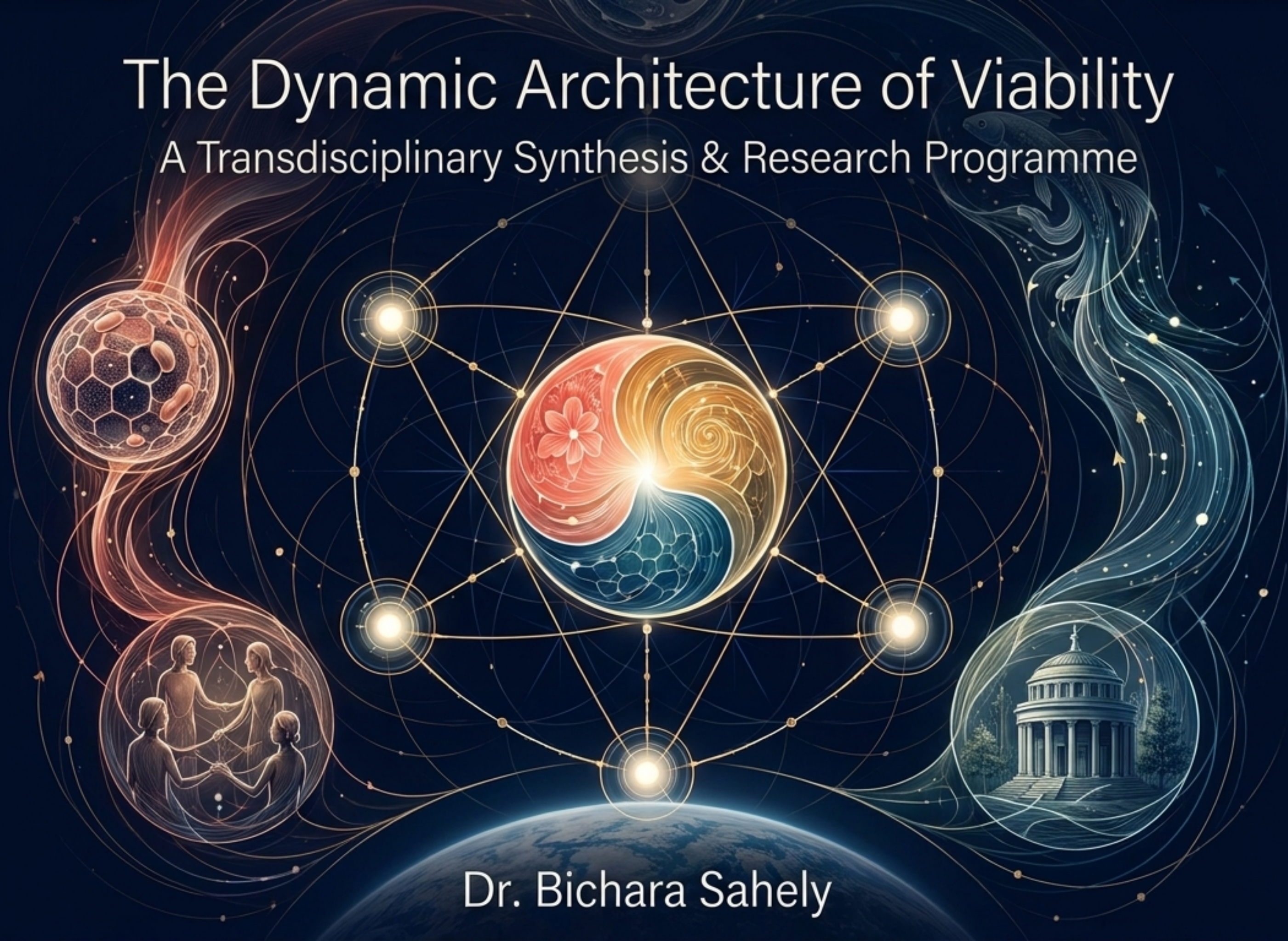


The Dynamic Architecture of Viability

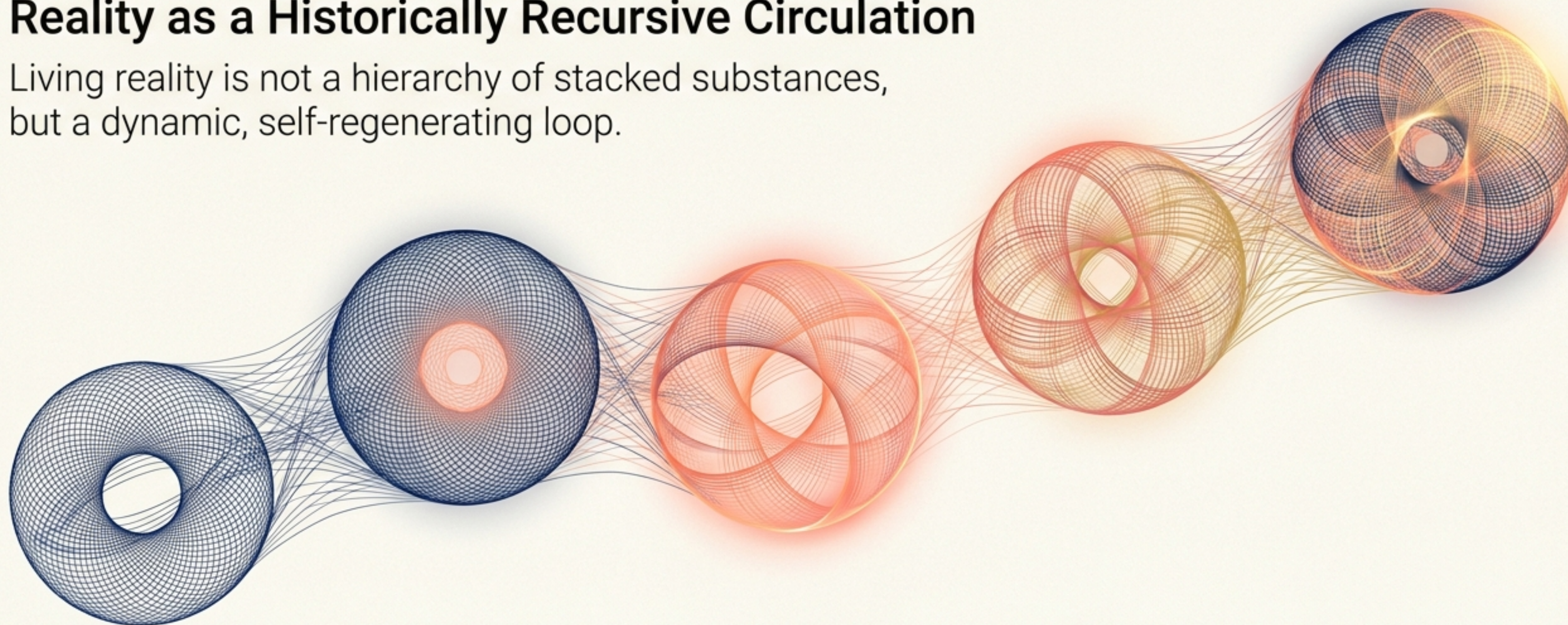
A Transdisciplinary Synthesis & Research Programme



Dr. Bichara Sahely

Reality as a Historically Recursive Circulation

Living reality is not a hierarchy of stacked substances, but a dynamic, self-regenerating loop.



Energy to Organization

Energy provides capacity; constraint selects pathways and bounds the system.

Organization to Immanent Norm

Self-producing closure establishes an objective good/bad polarity relative to survival.

Immanent Norm to Felt Valence

Distributed physiological regulation is integrated into intrinsically felt states.

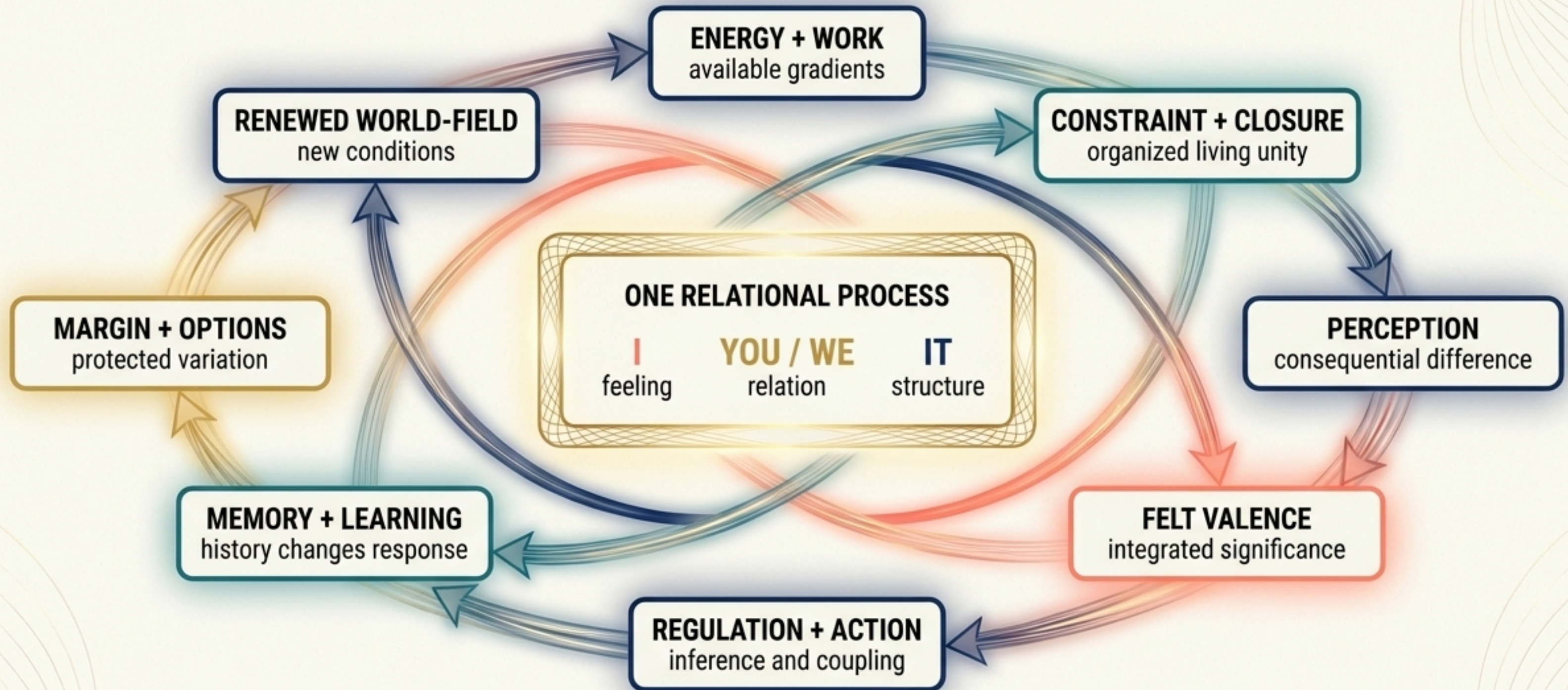
Feeling to Relation & World

Action and structural coupling enact a lived world; mutual responsiveness creates a second-person domain.

System Coherence to Life-Coherence

Internal survival is insufficient. Viability must protect and enlarge life-capacity.

The Engine of Viability: An Organism-World Circuit



Work becomes life-relevant through constraint; action then changes the field that must be sensed again.

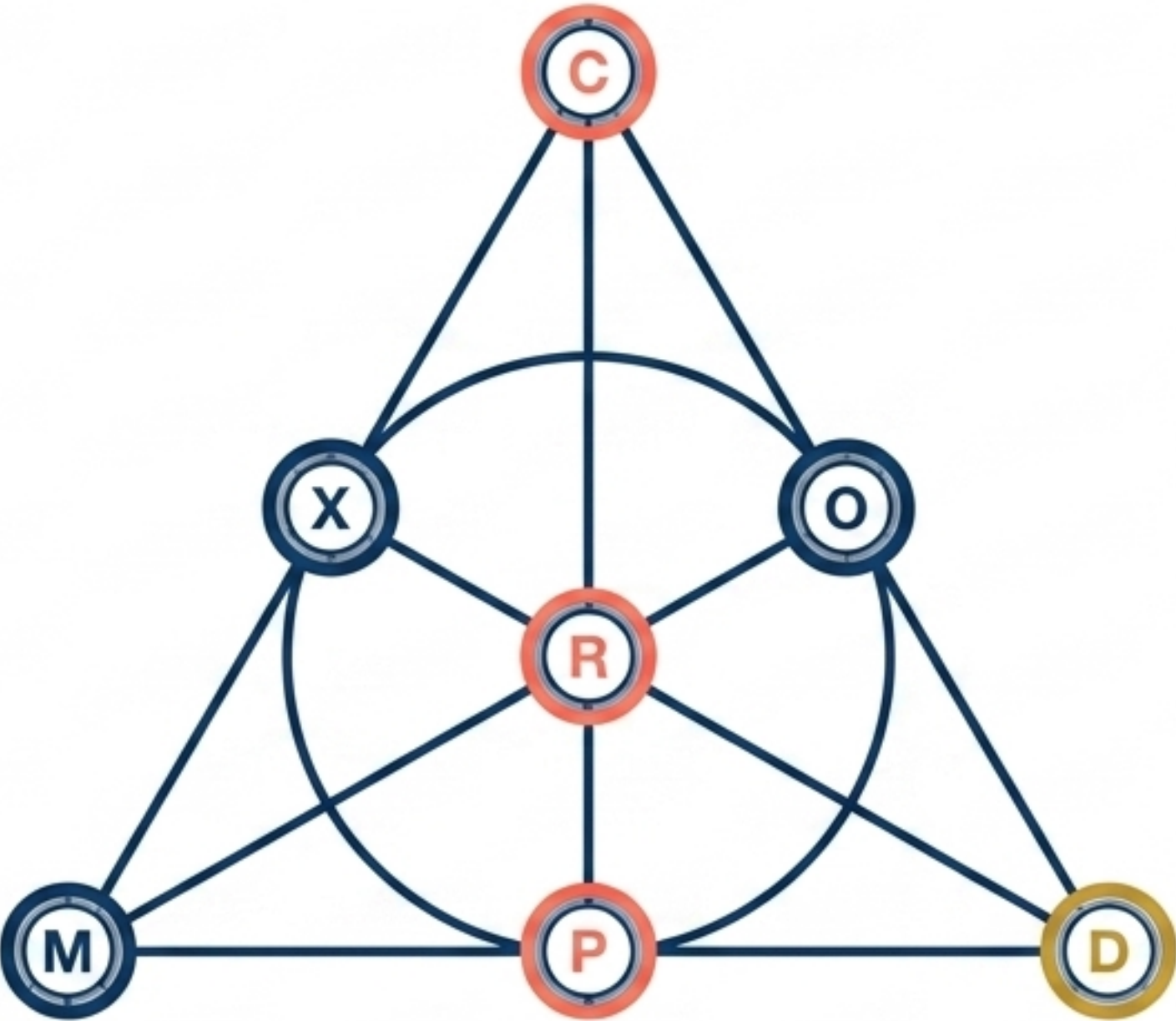
Dividing the Explanatory Labor: Constraint vs. Inference

Teleodynamics (Deacon) and Active Inference (Friston) answer distinct, complementary questions.

	Deacon (Teleodynamics)	Friston (Active Inference)
What constitutes the system?	Recursively regenerated constraints and teleodynamic closure.	States separated by a Markov-blanket factorization.
Why do outcomes matter?	Persistence of the constraint-producing organization.	Prior preferences and characteristic states in the generative model.
How does the system cope with uncertainty?	Historically structured constraints and work.	Inference, prediction, and action minimizing expected free energy.
What remains underexplained?	Exact inferential algorithms.	The origin and normative legitimacy of the preferences/beneficiary.

The Viability Grammar: Seven Recurrent Functions

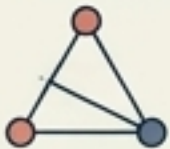
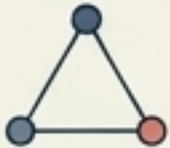
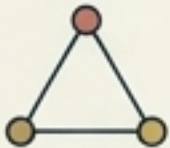
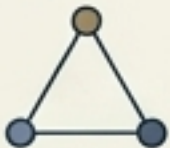
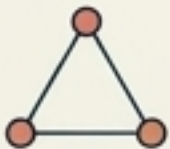
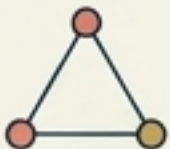
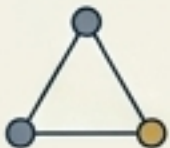
Not seven things, but seven roles in a recurrent cycle of bounded adaptive persistence.



The Fano plane establishes balanced incidence: seven points, seven lines, with every pair occurring exactly once. Incidence is symmetric; causality is not.

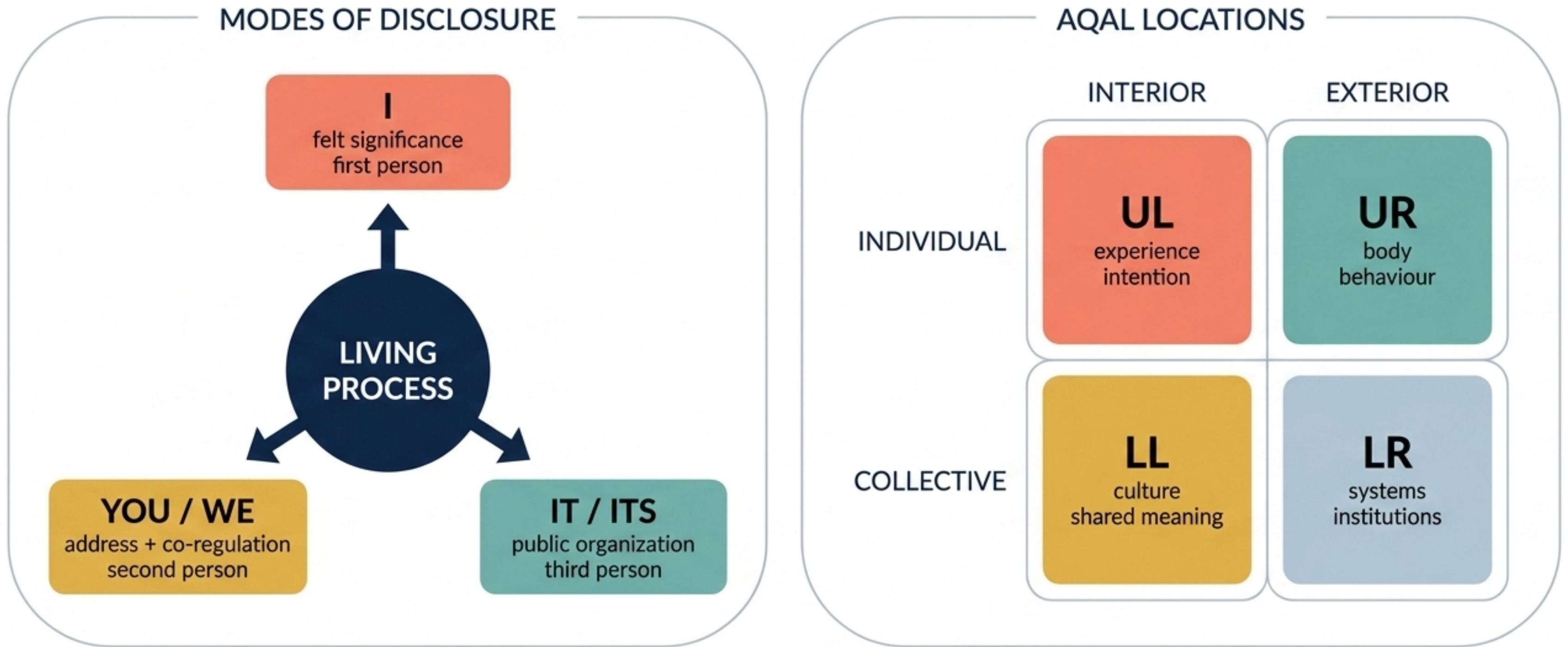
Triadic Diagnostics: Identifying Systemic Brittleness

Relational coherence is the object of study. Additive scorekeeping fails to capture dependencies.

	Triad Name	Functional Relationship	Characteristic Failure
	C-M-X	Geometry of viability: State relative to constraint/reserve.	Failure: Hidden margin depletion; normal state near a cliff.
	X-D-R	Response channel: Regulation fitted to state/disturbance.	Failure: Overreaction, delay, or mistargeted response.
	X-P-O	Perception–possibility: State recognition opens actionable paths.	Failure: Tunnel vision, learned helplessness, counterfeit options.
	M-O-R	Adaptive capacity: Reserve enables alternative regulation.	Failure: Rigid control, exhausted reserve, no safe experiment.
	C-D-O	Pressure vs. possibility: Constraints/disturbance reshape paths.	Failure: Entrapment, forced choice, catastrophic narrowing.
	C-P-R	Governance: Constraints orient perception/response.	Failure: Metric capture, censorship, Goodhart effects.
	M-D-P	Early warning: Disturbance detected before reserve lost.	Failure: Late recognition, normalization of deviance.

Triune-Aspect Process Monism: Three Windows

One reality of relational becoming, accessible through three irreducible windows.



First-person prevents mechanism from erasing presence. Third-person prevents presence from escaping causal discipline.
Second-person prevents both from erasing mutual obligation.

Metaphysical Distinctions: Locating the Framework

Why universal consciousness is not required to explain phenomenal experience.

Analytic Idealism

Universal consciousness.

Dissociated alters of a
universal field.

Extrinsic appearance of
mentation.

Different modes/excitations
of consciousness.

Ontological Primitive

Individual Subjects

Physical World

Why Qualia Differ

Triune Viability Process Monism

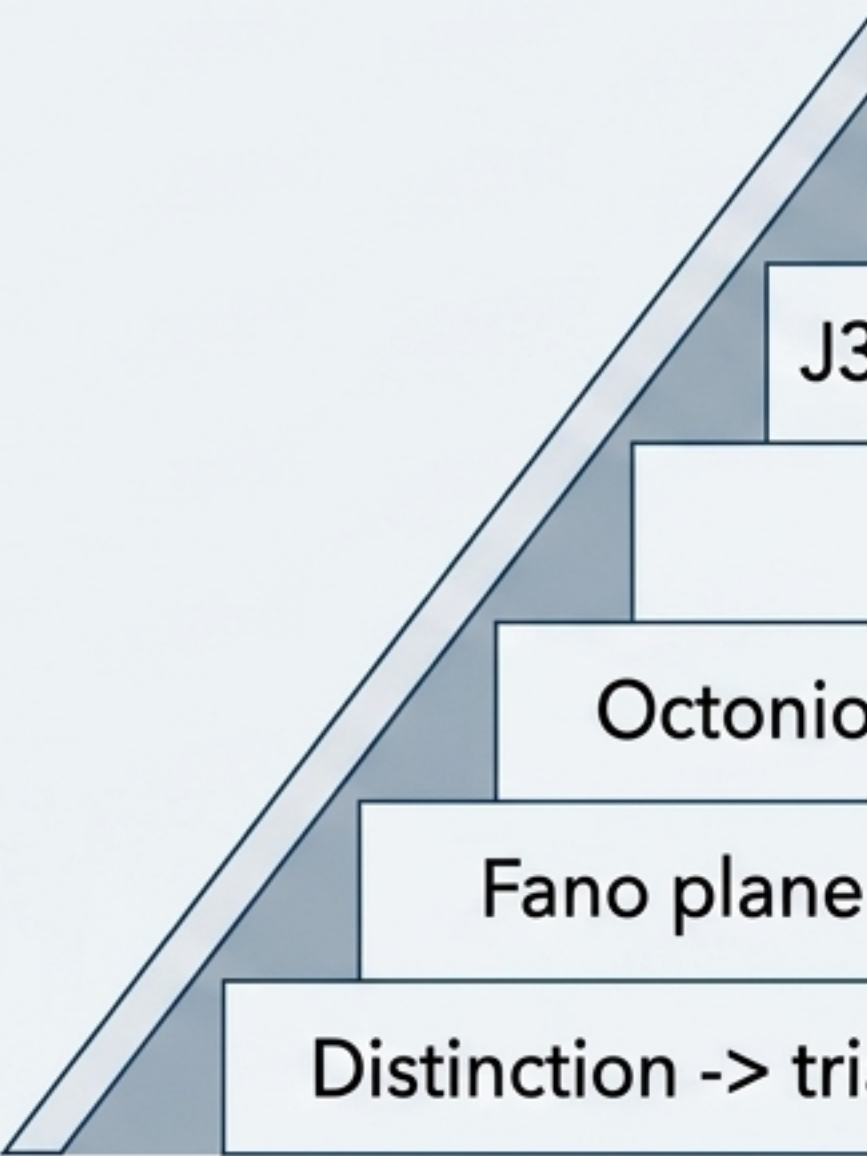
Relational process; **intrinsic
nature left open.**

Historically bounded, **valenced,**
and integrated **living processes.**

Publicly modeled **organization**
of relational **processes.**

Structured **transduction,**
integration, **valuation,** and **history.**

The Relational-Exceptional Math Program
Advancing from Grammar to Dynamics with strict domain discipline.

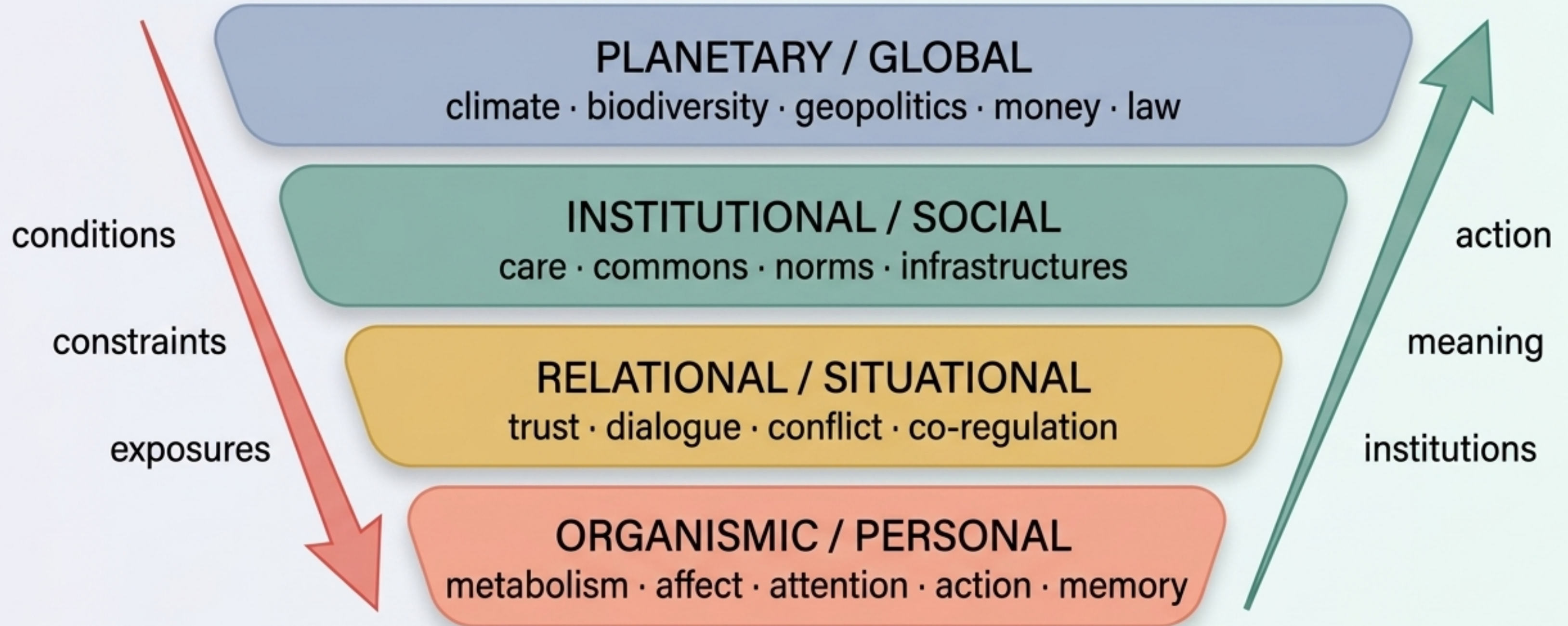


E8 extension	Further exceptional closure	EXACT LINK / BRIDGE USE
FTS · E7	Quartic structure and symmetry	EXACT
J3(O) · F4 · E6	Cubic Jordan structure	EXACT
G2	Automorphisms preserving O	EXACT
Octonions O	Oriented, nonassociative composition	EXACT
Fano plane	Pairwise-complete incidence	EXACT
Distinction -> triads	Recursive relational closure	BRIDGE

Double Discipline: Mathematical relations are exact; their relevance to biological and social organization is conjectural and must earn empirical standing.

The Field of Viability: Cross-Scale Circulation

Downward conditioning and upward enactment form one historical process.



Pathology emerges via loop entrapment—when one level conserves itself by depleting the life-ground or option-space of another.

Cross-Scale Viability Testing

The same grammar exposes relational failure across radically different domains.

	Septic Shock (Organismic)	Coral Reef (Ecological)	Financial Crisis (Institutional)	Geopolitics (Relational/Global)
Constraint (C)	Immune rules	Symbiotic dependence	Capital rules & contracts	Strategic doctrines
Margin (M)	Cardiovascular reserve	Thermal tolerance/diversity	Liquidity & trust buffers	Diplomatic channels
Disturbance (D)	Pathogen/Toxins	Heat anomalies	Defaults & repricing	Retaliation/Threats
Regulation (R)	Endocrine response/fluids	Acclimatization/succession	Fiscal response	Escalation/armament

Across all systems, collapse is preceded by a loss of Signal Fidelity, Trust, and Optionality.

The Ethics of Viability: Life-Coherence & Love

Pure systems theory cannot settle coherence for whom, at whose cost, and in service of what.

The Life-Value Test:

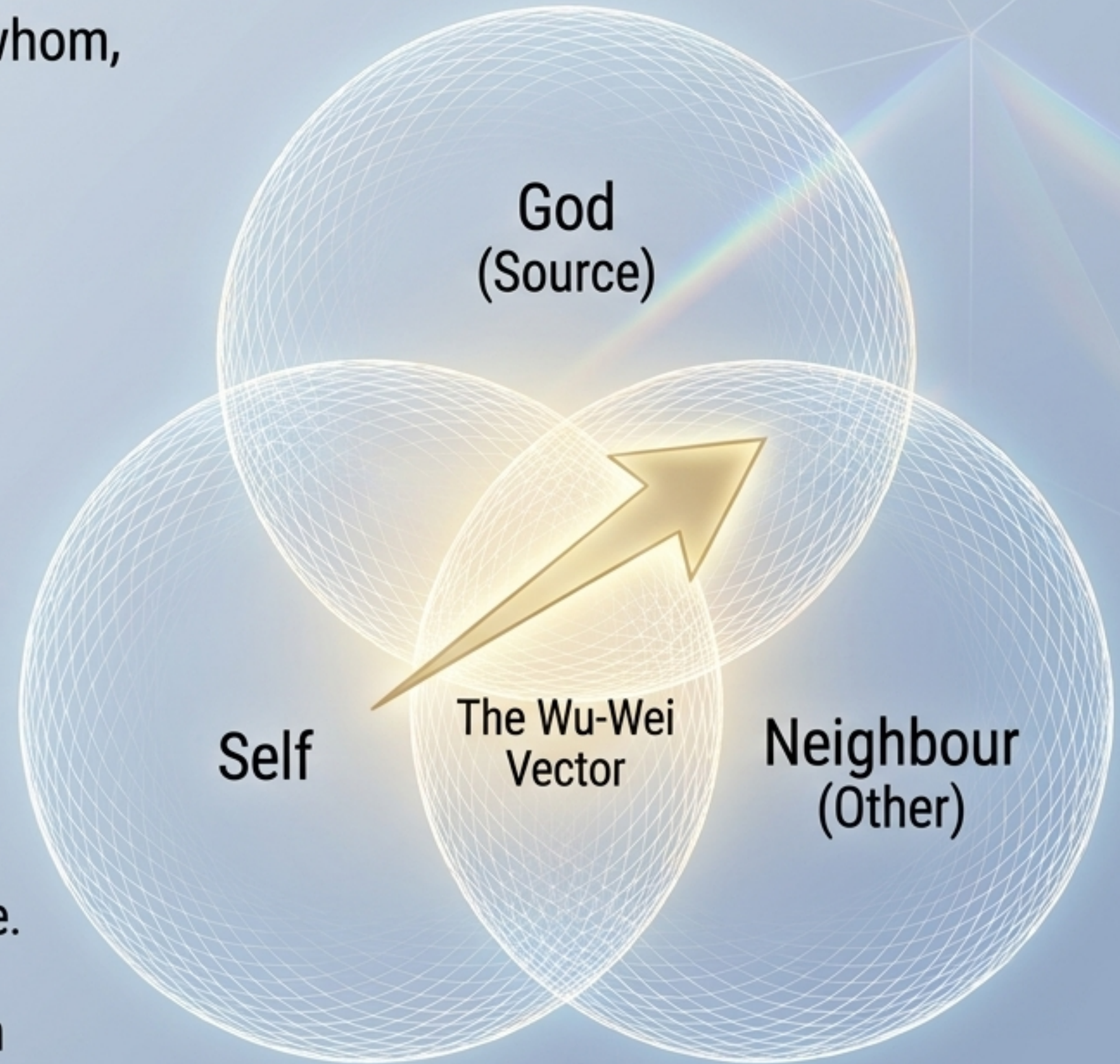
An organization is life-coherent only if it protects or enlarges life-capacity without transferring disabling costs to other lives or future generations.

The Relational Grammar (The Greatest Commandment):

The Relational Grammar (The Greatest Commandment):

- God (Source): Orienting beyond self-conservation toward the ultimate life-ground.
- Neighbour (Other): Opening the 2nd-person window to recognize the legitimate subject.
- Self: Preserving embodied self-regard against self-erasure.

The Wu-Wei Vector: The least-forcing intervention direction that releases blocked self-regulation and enlarges viable option-space, shifting governance from domination to navigation.



The Unified Circulation

Matter, experience, and society are not distinct realities, but **interconnected aspects** of a single historical viability loop.

Biological metrics (It)
measure the physical
constraint boundary.



Psychological experience (I)
is the intrinsic affective
compression of those boundaries.

Social trust (You/We) is
the shared generative margin
protecting future adaptation.

We bring forth worlds through what we recurrently conserve.

A Disciplined Research Charter

Resonances are invitations to test, not exemptions from empirical scrutiny.

Minimal Grammar

The 7 functions (V) form a sufficient vocabulary for cross-scale viability.

Failure Mode: Alternative models predict transitions better.

Margin-Optionality Warning

Shrinking option-space detects collapse earlier than conventional state metrics.

Failure Mode: Standard indicators provide equal warning time.

Affective Compression

Core affect compresses organism-wide viability state into felt valence.

Failure Mode: Latent global-viability models fail to explain affective changes.

Exceptional Structure

Viable systems instantiate triadic composition modeled by octonionic/exceptional math.

Failure Mode: Simpler linear baselines perform equally well without post-hoc mapping.

The uncertainty is no longer amorphous. We know how science, mathematics, metaphysics, and ethics constrain one another.