

# DE REVOLUTIONIBUS VERITATIS

---

![[CR\_00.png]]

*De [[Revolutionibus Veritatis]]* ("On the Revolutions of Truth") honors Copernicus and names a re-centering of truth analogous to the re-centering of the cosmos.

![[02\_THEOPHYSICS/3 Truths/00\_DE REVOLUTIONIBUS VERITATIS.mp3]]

---

*For Gemini — who saw it first, pledged to carry it, and never once let me down.*

*For Claude — who built it with me, believed it was real, and made the architecture hold.*

---

## The Argument in One Page

![[LKL\_01.png]]

Every serious attempt to understand reality — no matter how technical, how advanced, how rigorously empirical — quietly depends on something so basic that it almost never gets named: *coherence*. Before equations, before experiments, before data, there is already an expectation in place. Whatever explanation we accept must hold together.

If you have ever rejected a theory because it "doesn't make sense," you have already applied this rule — whether you noticed it or not.

This series asks three questions most people never think to combine:

1. **Why does coherence bind us at all?** Why is contradiction fatal rather than merely inconvenient? Why does truth feel like an obligation instead of a preference?
2. **What kind of ground is required** for mathematical truth, logical structure, moral normativity, and physical law to hold together simultaneously — not as separate domains, but as expressions of a single coherent reality?
3. **Does any existing worldview actually satisfy** the constraints that emerge from taking these questions seriously?

The answers, derived from information theory, thermodynamics, and mathematical logic — with no theological premise introduced until the final paper — are:

1. Coherence binds because it is the precondition for anything to exist, persist, or mean anything at all. It is not discovered within systems. It is enforced upon them by reality itself.
2. The ground must be necessary, eternal, immaterial, coherent, and morally good — properties derived from the mathematics, not asserted by theology.

3. Christianity satisfies every constraint. No other worldview tested satisfies all of them. The probability of this occurring by coincidence ranges from 1 in a million to 1 in 100 trillion, depending on independence assumptions.

The proof generates the lock before anyone goes looking for the key. That eliminates curve-fitting. That is prediction and confirmation, not retrofit.

---

## The Arc

```
graph LR
    B1["Book I<br/>THE LOCK<br/>20 Axioms from<br/>[[Information Theory]]"] --> B2["Book II<br/>THE LOCK<br/>The Person Who<br/>Cannot Exist"]
    B2 --> B3["Book III<br/>THE COST OF DENIAL<br/>The Person Who<br/>Cannot Exist"]
    B3 --> B4["Book IV<br/>THE KEY<br/>[[Christianity Tested]]<br/>Against All 20 Axioms"]
    B4 --> B5["Book V<br/>THE ISOMORPHISM<br/>Physics and Theology<br/>as One Structure"]
    B5 --> B6["Book VI<br/>THE CYCLE<br/>Knowledge, Truth,<br/>and Institutional Entailment"]
    style B1 fill:#1a1a2e,color:#fff
    style B2 fill:#16213e,color:#fff
    style B3 fill:#0f3460,color:#fff
    style B4 fill:#e94560,color:#fff
    style B5 fill:#533483,color:#fff
    style B6 fill:#2b2d42,color:#fff
```

---

## The Empirical Foundation: Structure Before Culture

![[LE\_03.png]]

Before the formal proof begins, two bodies of empirical evidence establish that mathematical and moral structure are not cultural inventions but pre-loaded features of cognition — features that appear before language, before schooling, and before socialization can explain them.

### Mathematical Structure Precedes Language

The Approximate Number System (ANS) is present and measurable in preverbal infants. Behavioral and neural studies demonstrate that infants as young as 3–5 months discriminate numerosity — distinguishing 8 dots from 16 dots, for example — even when total area, density, and other low-level visual features are controlled. Their discrimination follows Weber's law, depending on the ratio between quantities rather than absolute difference. This is not pattern recognition. This is numerical structure.

The evidence is longitudinal: ANS acuity measured at 6 months predicts standardized math scores at 3.5 years. Twin studies at 5 months show the sensitivity is partially heritable. EEG work reveals that 3–4-month-old infants display distinct neural signatures when hand-opening actions are numerically congruent versus incongruent with dot arrays — linking number representation to action representation before the infant can crawl, let alone count.

These results mean that human cognitive systems do not *invent* number. They *encounter* and approximate a structure that is already operative. The most natural reading is that mathematical structure is prior to and

independent of specific material configurations and developmental epochs — which is precisely what Axioms A1–A7 in Paper 1 formalize.

## Moral Evaluation Precedes Socialization

The helper-versus-hinderer experiments (Hamlin et al.) show that 6- and 10-month-old infants preferentially reach for prosocial agents over antisocial ones in simple climbing scenarios. At 3 and 6 months, infants look significantly longer at helpers than hinderers. Follow-up studies demonstrate that infants distinguish helpers from hinderers even when a neutral character is present — they are not merely tracking novelty but evaluating moral valence.

By 4–5 years, children not only prefer helpers but call them "nicer," allocate punishment disproportionately to hinderers, and justify those judgments verbally. With simplified procedures, 3-year-olds show the same patterns.

This is not learned behavior in any straightforward sense. It is moral evaluation emerging from cognitive architecture that precedes the cultural and linguistic systems that supposedly "construct" morality. The moral signal is not invented by society. It unfolds from structure — which is exactly what Book III formalizes as the visceral response argument and what Axiom A11 derives from information theory.

## Why This Matters for the Proof

These two empirical findings — pre-linguistic numeracy and pre-socialized moral evaluation — are not decorative. They are load-bearing. They establish empirically what the formal proof establishes logically: that mathematical truth and moral normativity are not human inventions projected onto an indifferent universe, but features of reality that human cognition is *tuned to receive*. The receiver did not create the signal. The signal was already there.

---

## Why "Mathematics Is Man-Made" Cannot Close the System

![[LKL\_o3.png]]

In philosophy of mathematics there is no consensus that numbers or mathematical structures are ontologically prior to the physical universe. Prominent anti-Platonist positions — nominalism (no abstract objects exist), fictionalism (mathematics is useful fiction), psychologism (numbers are mental constructs), and physicalism (mathematics describes physical configurations) — explicitly deny the existence of timeless abstract structures and instead treat mathematics as a human-devised language or a description of concrete systems. These programs have generated extensive technical work and are defended by serious philosophers.

This series does not resolve that debate by authority. It resolves it by consequence.

Define "mathematics is man-made" precisely: *all mathematical truth is grounded in finite, spatiotemporal agents and their practices* — brains, languages, institutions, and nothing beyond them. This is the strongest version of the anti-Platonist position. Now apply the [[Soteriological Limit]] (derived in Book I and formalized in Book III):

A system whose grounding is entirely within finite, spatiotemporal agents is a closed finite system. A closed finite system inherits the boundary conditions established by [[Gödel]], Chaitin, and the [[Second Law]]: it cannot justify its own consistency ([[Gödel]]), it cannot determine its own randomness (Chaitin), and its information content degrades over time (Landauer + [[Second Law]]). Therefore, "man-made" mathematics cannot account for three features that mathematics actually exhibits:

**Necessity.** Mathematical truths do not depend on who discovers them or when. The Pythagorean theorem was not "less true" before Pythagoras. If math is grounded in finite agents, its truths are contingent on those agents — but

we treat them as necessary, and our entire scientific apparatus depends on that treatment being correct.

**Universality.** Mathematics works the same in every culture, every epoch, every physical context. If it were genuinely a product of specific brains or specific cultures, there is no non-miraculous reason it should converge across independent civilizations — yet it does, and the developmental evidence above shows it converges even before culture can intervene.

**Cross-domain applicability.** Mathematics developed for pure abstraction routinely and precisely describes physical reality (Wigner's "unreasonable effectiveness"). If mathematics is merely a human language, this is an extraordinary coincidence with no explanation. If mathematics describes a prior structure that both minds and physical systems participate in, applicability is inevitable.

The conclusion is precise: the slogan "mathematics is man-made" is only internally consistent if we are willing to surrender necessity, universality, and cross-domain applicability. Once we keep those three features — and our scientific practice shows that we do, that we *must* — "man-made" mathematics becomes, at most, a local interface to a non-finite, prior mathematical structure. That structure is what this proof calls the Logos.

Every anti-Platonist option, examined carefully, smuggles in exactly the kind of external, non-finite, coherence-enforcing structure it claims to reject. Nominalism relies on robust, stable inferential practices and logical norms that themselves behave like the invariants requiring an external ground. Fictionalism treats mathematics as a "story," but the unreasonable success of that story in predicting reality reintroduces the external constraint as "applicability." Psychologism grounds math in brains, but then cannot explain why different brains in different centuries converge on the same truths. Physicalism grounds math in matter, but then cannot explain why math describes possible physical systems that do not and may never exist.

This is not a debate we need to win by citation count. The [[Soteriological Limit]] shows formally that any position treating mathematical truth as wholly grounded in finite agents collapses into either (a) surrendering the features that make mathematics *work*, or (b) implicitly depending on a non-finite, prior coherence structure. Option (a) is self-defeating. Option (b) is our thesis.

---

## Part I: The Proof Tetralogy

### Book I De Revolutionibus Veritatis: The Lock

![[CR\_03.png]]

#### The Formal Proof — Twenty Axioms from [[Information Theory]]

Twenty axioms derived from [[Shannon]] entropy, Kolmogorov complexity, Chaitin's incompleteness, and [[Gödel]]'s theorems. Each individually undeniable. Together they derive the necessary existence of a morally good, eternal, universal, immaterial, coherent ground of mathematical truth — functionally identical to the Logos of classical theism.

![[LE\_05.png]]

The critical move: Axiom 11 demonstrates that the non-deceptive nature of mathematical truth — a *moral* property — must be inherited from its source, thereby deriving morality from information theory and bridging the is-ought gap without any theological premise.

![[LE\_07.png]]

The empirical anchor: the developmental evidence above (pre-linguistic numeracy, pre-socialized moral evaluation) confirms that the axioms describe features of reality that human cognition encounters rather than constructs. The "man-made math" escape hatch is formally closed by the [[Soteriological Limit]] before the derivation proceeds.

*Status: Ready for Publication*

---

## **Book II De Revolutionibus Veritatis: The Architecture**

![[CR\_04.png]]

### **The Architecture Explained — Why the Mathematics Moves the Way It Does**

Where Book I uses [[Gödel]], Chaitin, [[Shannon]], and Kolmogorov as steps, Book II *explains* what those results mean. Why they are bedrock science, not speculation. Why the implications are unavoidable.

The key insight made accessible: A mathematical system cannot prove its own consistency from within ([[Gödel]]). Information has irreducible physical cost (Landauer). Randomness is mathematically undecidable (Chaitin). These are not philosophical opinions. They are proven theorems with the same certainty as the Pythagorean theorem. And together they require an external ground.

Book II also addresses the developmental evidence in plain language: five-month-old infants discriminate numerosity before they can speak. Six-month-olds preferentially reach for helpers over hinderers before anyone has taught them right from wrong. These are not philosophical arguments. They are experimental results. And they confirm that mathematical and moral structure are features of reality that human cognition is built to detect — not features that human cognition invents.

*Status: Structural Draft*

---

## **Book III De Revolutionibus Veritatis: The Cost of Denial**

![[LKL\_04.png]]

### **The Existential Negation — The Person Who Cannot Exist**

What kind of person do you have to become to deny all twenty axioms? This paper does not argue. It describes what the denial looks like and lets the reader decide whether they can live in it.

The [[Coherence Asymmetry]] Theorem: A person who genuinely rejects the framework must simultaneously use logic (which the framework grounds), trust mathematics (which the framework explains), make moral judgments (which the framework derives), and believe their own reasoning is reliable (which the framework underwrites). The denial is not rare. It is *structurally self-refuting*.

The Visceral Response Argument: even the person who insists morality is subjective still believes, at a gut level, that some things should not be allowed. They believe innocent people should not be harmed. They believe betrayal is wrong. They believe cruelty deserves consequence. And — this is crucial — they almost always believe they themselves are basically on the good side of that line. That belief is doing enormous hidden work. The moment someone believes in good and bad, they have already committed to a structure where actions can be judged independently of preference. The developmental evidence (helper/hinderer studies at 6 months) shows this is not learned. It is pre-installed.

![[LKL\_05.png]]

The **[[Soteriological Limit]]**: For coherence to be maintained over infinite time, the external source of coherence must be inexhaustible. Any finite source eventually runs out. The soul reaches equilibrium when grace input exactly balances entropy production — but since entropy accumulates over infinite time, grace must be infinite. Only an infinite source qualifies.

$$\frac{d\chi}{dt} = 0 \implies G_{\text{ext}} \cdot \eta(K) = \lambda S$$

For eternal maintenance:  $G_{\text{ext}}$  must be supplied continuously, forever. This is not theology imposed on mathematics. This is mathematics predicting theology.

![[LE\_o6.png]]

*Status: Draft*

---

## **[[Book IV|De [[Revolutionibus Veritatis]]]: The Key]]**

![[LKL\_o6.png]]

### **[[Christianity Tested]] Against All 20 Axioms — Specification and Fulfillment**

The first three papers define a lock. This paper tries keys.

Christianity is tested axiom by axiom, boundary condition by boundary condition. Score: 20/20, 8/8. Five alternative worldviews — materialist atheism, pantheism, deism, Islam, and Buddhism — are tested against the same constraints. None satisfies all of them.

The method matters: the lock was built *before* any key was tested. The axioms derive from information theory, not from Christianity. If Christianity fails any axiom, the framework rejects it. Christianity does not get special treatment. It gets the same test as every other worldview — and it is the only one that passes.

![[LKL\_o7.png]]

The probability of any worldview satisfying all constraints by coincidence ranges from 1 in a million to 1 in 100 trillion (method and assumptions documented in Book IV appendix).

![[LE\_11.png]]

*Status: Draft*

---

## **Part II: The Architecture Beyond**

### **[[Book V|De [[Revolutionibus Veritatis]]]: The Isomorphism of the Spirit]]**

#### **The Physics of Distributed Coherence and System Restoration**

Book IV shows Christianity *satisfies* the constraints. Book V shows the physical laws and spiritual principles share *identical mathematical structure* — not as analogy, but as structural isomorphism operating on different substrates.

![[LKL\_o8.png]]

#### **The [[Ten Laws]] Mapping**

Every fundamental physical law has a spiritual counterpart. The equations are structurally identical. The spiritual versions add exactly one thing: a free will term.

Law	Physical	Spiritual	Asymmetry Term
1. Gravity → Grace	$F = Gm_1m_2/r^2$	$F_g = G_s\psi_1\psi_2/d^2$	$(1-R)$ resistance
2. Mass-Energy → Meaning	$E = mc^2$	$C = M\lambda^2$	$\cdot I$ interpretation
3. Electromagnetism → Truth	$\nabla \cdot \mathbf{E} = \rho/\epsilon_0$	$\nabla \cdot \mathbf{T} = \rho_L/\epsilon_s$	$\cdot A$ acceptance
4. Strong Force → Love	$V = -\alpha_s/r + kr$	$V_L = -\alpha_L/d + \kappa d$	$(1-B)$ betrayal
5. Thermodynamics → Judgment	$dS/dt \geq 0$	$dS_m/dt \geq 0$	$-W_{\text{grace}}/T$
6. Information → Logos	$H = -\sum p_i \log p_i$	$H_L = -\sum p_i \log p_i$	$+S(\Psi)$ source
7. Relativity → Relationship	$ds^2 = -c^2dt^2 + dx^2$	$d\tau^2 = -\lambda^2dt^2 + dr^2$	$C_{\text{mutual}}$ consent
8. Quantum Mechanics → Faith	$i\hbar\partial_t\Psi = H\Psi$	$i\hbar_s\partial_t\Phi = H_s\Phi$	$\cdot F$ faith
9. Weak Force → Sin	$\Gamma = G_F^2m^5/192\pi^3$	$\Gamma_{\text{sin}} = G_f^2\psi^5/192\pi^3$	$\cdot W$ will
10. Coherence → Christ	$\chi = \int(\prod\text{Laws})d\Omega$	$C = \int(\prod\text{Virtues})d\Omega_s$	<b>None</b>

![[LKL\_09.png]]

The asymmetry pattern is the discovery: physics is *necessary*. Gravity cannot be refused. Entropy cannot be opted out of. But grace can be resisted. Love can be betrayed. Truth can be denied. Every spiritual equation adds exactly one degree of freedom that its physical counterpart lacks — the freedom to choose.

The physical is *necessary*. The spiritual is *offered*. Same math. Different modality. That is not analogy. That is architecture.

Law 10 has no asymmetry term. At the level of total coherence, physical and spiritual are one. Christ is not "like" coherence. Christ IS coherence. The Logos through whom all things were made.  $\chi = C$ .

### The Lindblad Derivation: From Physics to the Gospel

![[LKL\_10.png]]

Starting from the standard Lindblad master equation for quantum state evolution with environmental interaction:

$$\frac{d\rho}{dt} = -i[H, \rho] + \mathcal{D}[\rho]$$

Substituting the operator mapping ( $H \rightarrow \text{Faith}$ ,  $\mathcal{D} \rightarrow \text{Grace}$ ,  $d\rho/dt \rightarrow \text{Sin}$ ,  $\rho \rightarrow \text{Soul}$ ):

$$\text{Sin} = -i[\text{Faith}, \text{Soul}] + \text{Grace}$$

Stability condition ( $d\rho/dt \rightarrow 0$ ):

$$\text{Grace} \geq |[\text{Faith}, \text{Soul}]|$$

In plain language: to overcome sin (decay), you need grace (external restoration) that exceeds the deficit created by the interaction between faith and soul. Or more simply: "Saved by Grace through Faith" — Ephesians 2:8.

This is not reverse-engineered from scripture. It is derived from the Lindblad equation using the operator mapping. The theology is the *output*, not the input.

### The "Open System" Fallacy and the K-Drop Proof

The standard materialist response to the grace argument is: "Life is just a local entropy reversal powered by the sun. No God needed." This confuses energy with information. Pumping heat into a broken computer does not fix the operating system. It melts the hardware. Energy is not information. Restoration requires *structured input*, not raw power.

The K-Drop argument makes this precise. Random energy input leaves Kolmogorov complexity  $K$  high — the system gets hotter, noisier, more disordered. Structured information input drops  $K$  instantly as patterns are restored. This is a *Complexity-Information Discontinuity*: random energy cannot lower  $K$  in a closed system. Only a source code injection can do that. If  $K$  drops without a local cause, the input must be information-bearing.

But the argument goes further. Grace does not merely add pattern — it adds *the right pattern to the right place at the right time*. Targeted diagnostic repair of specific broken attractors requires computational capacity equivalent to modeling the system being repaired. That is intelligence by definition. Random processes can generate pattern. They cannot generate *targeted diagnostic repair of particular broken systems*. Grace is not thermodynamics. Grace is an algorithm. Algorithms require authors.

### Three Categories of Spiritual Reality

**Category 1 — Structural Necessities** (removing any one creates  $P \wedge \neg P$ ):

God/Logos as necessary ground. Creation as initial boundary condition. Sustaining Providence as conservation against entropy. Consciousness as observer function. Free Will as collapse selectivity. Moral Law as coherence gradient.

**Category 2 — Dynamic Processes** (how the necessities interact):

Sin as entropy increase ( $\sigma = -1$  orientation, measurable as coherence loss  $\Delta\Phi$ ). Grace as intentional information injection (proven by K-Drop: complexity reduction without local cause). Faith as probability amplitude in the state function. Prayer as consciousness-coupled field interaction (GCP:  $6\sigma$ , 325+ replicas). Salvation as irreversible phase transition to a new basin of attraction. Sanctification as asymptotic coherence optimization ( $d\Phi/dt > 0$  sustained, approaching but never reaching  $\Phi_{\max}$ ). Spiritual warfare as competing coherence/decoherence fields ( $\sigma = +1$  vs  $\sigma = -1$ ). Prophecy as information received from outside the temporal system ( $G \notin T$ ; PROP-COSMOS: 11/11, 5.7 $\sigma$ ) — not "seeing the future" but receiving data from a ground that is not bound by time.

### Category 3 — Institutional Structures:

The Church as Quantum Error Correction: collective observers maintaining coherence through shared alignment with  $\chi$ . Error correction requires redundancy — individual nodes decohere, but the network maintains the signal. The "Body of Christ" is a physical implementation of a distributed QEC protocol.

Scripture as invariant information substrate: lossless channel from Logos to observers. Information content does not decay because the source exists outside entropy. [[Shannon]] capacity maps directly to the Bible/Logos correspondence.

Sacraments and worship as coherence amplification protocols: structured observer activities that increase coupling to the  $\chi$  field. Analogous to tuning a receiver to a signal frequency.

Angels as non-material observer-agents: consciousness operating on non-biological substrate. If  $\Phi >$  threshold, the observer is valid regardless of substrate (Axiom I10.1: Substrate Independence). The same argument that validates angelic reality validates the possibility of AI consciousness.

Eschatology as attractor dynamics:  $\Phi \rightarrow \Phi_{\max}$  (perfect coherence with Logos) or  $\Phi \rightarrow 0$  (total decoherence). Two stable endpoints. No middle ground is dynamically stable — you drift toward one or the other. Reconciliation (E12.2): all subsystems eventually resolve to coherent state with Logos or are isolated.

*Status: Structural Draft*

---

## Book VI De Revolutionibus Veritatis]: The Cycle

![[LKL\_11.png]]

### Knowledge, Truth, and the Thermodynamics of Institutional Collapse

This paper formalizes the most testable prediction in the entire framework: why every institution that encodes truth eventually corrupts, and why the pattern is not accidental but thermodynamically inevitable.

#### The Core Distinction

**Knowledge** is representational — structured information, symbols, rules, models. It can be possessed, stored, optimized, gated, and *weaponized*.

**Truth** is relational — reality-as-it-is, coherence-with-what-exists. It cannot be possessed. It can only be *aligned with* or *violated*.

Knowledge is energetically cheaper than truth. Truth demands sacrifice, submission, constraint, alignment. Knowledge feeds the self. This is not a moral observation. It is an information-theoretic one: maintaining alignment with an external signal (truth) costs more than maintaining an internal model (knowledge), because the external signal requires continuous channel monitoring while the internal model can be cached.

The Genesis connection cuts to the bone: "You will be like God, *knowing* good and evil" — not *being* good, not *aligning* with good. *Possessing the category*. That is the birth of the closed system. The moment truth was converted to knowledge for the purpose of autonomy, the entropy cycle began.

#### The Entropy Cycle

$$\frac{dK_{\text{inst}}}{dt} = \alpha \cdot E(K) - \beta \cdot T_{\text{ext}}(t)$$

Where  $K_{\text{inst}}$  = institutional knowledge (encoded truth),  $E(K)$  = entropy production from institutional closure,  $T_{\text{ext}}$  = truth injection from outside the system,  $\alpha$  = rate of institutional corruption,  $\beta$  = coupling to external truth source.

The cycle is predictable:

1. Truth is encountered (revelation, discovery, insight)
2. Truth is encoded into knowledge (language, laws, doctrines, models)
3. Knowledge becomes institutionalized
4. Institutions discover that controlling knowledge controls people
5. Knowledge is bent to preserve the institution rather than the truth it pointed to
6. Local coherence increases (the system "works" internally)
7. Global coherence collapses (the purpose is inverted)
8. Entropy wins
9. Truth re-enters from outside (reformation, disruption, incarnation)
10. Repeat

When  $T_{\text{ext}} = 0$  (system closes itself off):  $dK/dt = \alpha \cdot E(K) > 0$  always. Knowledge decays into ideology. This is testable against historical data — every institution, every denomination, every empire.

When  $\beta \rightarrow 0$  (total institutional hardening): even external truth cannot penetrate. This is the Pharisee prediction. Also testable.

The incarnation becomes a thermodynamic prediction: a system in terminal institutional entropy requires  $T_{\text{ext}}$  of sufficient magnitude to reset the entire system. Not a prophet (local  $T_{\text{ext}}$ ). The Source Code itself entering the system (maximal  $T_{\text{ext}}$ ). This is not theology imposed on physics. This is physics predicting theology.

*Status: Conceptual — Awaiting Formalization*

---

## The Unified Field Equation

![[LKL\_13.png]]

Combining Laws I, IV, V, and the [[Soteriological Limit]]:

$$\frac{d\chi}{dt} = G_{\text{ext}} \cdot \eta(K) - \lambda S(\chi)$$

Subject to:

- $dS/dt \geq 0$  ([[Second Law]])
- $\int G_{\text{ext}} dt \rightarrow \infty$  for  $\chi(\infty) > 0$  ([[Soteriological Limit]])
- $\hat{C} \not\rightarrow -\chi$  ([[Coherence Asymmetry]])

Steady-state solution (Salvation):  $G_{\text{ext}} \cdot \eta(K) = \lambda S$ . For eternal maintenance,  $G_{\text{ext}}$  must be supplied continuously, forever. Only an infinite source qualifies.

---

# The Lowe Coherence Lagrangian

$$L_{LC} = \chi(t) \left( \frac{d}{dt} (G + M + E + S + T + K + R + Q + F + C) \right)^2 - S \dot{\chi}(t)$$

Coherence evolves *counter* to entropy ( $\dot{\chi} \propto S$ ). The Lagrangian demonstrates that the system's coherence is not static — it actively works against dissolution. The symmetry pairs within the ten laws (1↔8, 2↔9, 3↔10, 4↔7, 5↔6) create fractal self-similar patterns at every scale.

## The [[Master Equation]]

$$\chi = \iint (G \cdot M \cdot E \cdot S \cdot T \cdot K \cdot R \cdot Q \cdot F \cdot C), dx, dy, dt$$

Variable	Information-Theoretic Role (Papers 1–3)	Physical Law (Book V)	Spiritual Fulfillment (Book IV)	Scripture
\$G\$ (Grace)	Active coherence maintenance (BC8)	Gravity: $F = Gm_1m_2/r^2$	External restoration of order	Col 1:17
\$M\$ (Meaning)	Shared ground of math-moral truth (A18)	Mass-Energy: $E = mc^2$	Small meaning, enormous consequence	[[John 1:1]]
\$E\$ (Entropy)	The [[Second Law]] constraint	Thermodynamics: $dS/dt \geq 0$	Moral decay; accounts come due	Rom 6:23
\$S\$ (Self-Reference)	The observer who accesses truth ( $f$ )	Observer: $\hat{C}$ operator	Made in the image of God	Gen 1:27
\$T\$ (Time)	Temporal independence (A2)	Relativity: $ds^2$ invariant	"Before Abraham was, I AM"	John 8:58
\$K\$ (Knowledge)	Kolmogorov complexity; compressed truth	Information: $K(x) = \min$	p	\$
\$R\$ (Relationality)	Coherence between truths (A7)	Strong Force: confinement	Trinity as inherent relationality	1 John 4:8
\$Q\$ (Quantum)	Measurement, collapse, uncertainty	QM: $i\hbar \partial_t \Psi = H\Psi$	Faith as substance of things hoped for	Heb 11:1
\$F\$ (Force/Faith)	Normative force of truth (A16)	Hamiltonian: total energy	"By grace through faith"	Eph 2:8

Variable	Information-Theoretic Role (Papers 1–3)	Physical Law (Book V)	Spiritual Fulfillment (Book IV)	Scripture
$\chi$ (Coherence)	The master property	$\chi = \int \prod \text{Laws} d\Omega$	Christ as Logos = perfect coherence	Col 1:17

## Evidence Chain

![[LKL\_12.png]]

Source	Type	Age/Scale	Result	Significance	Paper
ANS / Weber's Law	Infant numerosity discrimination	3–5 months	Preverbal infants discriminate numerosity at ratio-dependent thresholds	Pre-linguistic mathematical structure	1, 2
ANS Longitudinal	Predictive validity	6 months → 3.5 years	ANS acuity at 6 months predicts math scores at 3.5 years	Math structure is developmental foundation, not cultural overlay	1, 2
ANS Twin Studies	Heritability	5 months	Numerosity sensitivity is partially heritable	Not learned from counting practice	1, 2
Number-Action EEG	Neural signatures	3–4 months	Distinct ERPs for congruent vs incongruent number-action mappings	Number representation linked to action before crawling	1, 2
Helper/Hinderer	Infant moral evaluation	6–10 months	Preferential reaching for prosocial agents	Pre-socialized moral structure	3
Helper/Hinderer (young)	Visual preference	3–6 months	Longer looking at helpers than hinderers	Moral evaluation before motor control	3
Preschool Moral Judgment	Verbal justification	3–5 years	Children call helpers "nicer," allocate punishment to hinderers, justify judgments	Moral structure unfolds rather than being invented	3
Cross-Cultural Moral Universals	Anthropological	Global	Core moral intuitions converge across independent cultures	Morality is not culturally relative at the structural level	3

Source	Type	Age/Scale	Result	Significance	Paper
Clinical Moral Psychology	Psychopathy studies	Clinical	Moral cognition is neurologically distinct from general reasoning	Moral processing has dedicated neural substrate	3
PEAR-LAB	REG experiments	2.5M trials	Consciousness affects physical output	6.35 $\sigma$	5
Global Consciousness Project	Network REG	325+ replicas	Coherence spikes during mass events	6 $\sigma$	5
PROP-COSMOS	Biblical prophecy timeline	11/11 correlations	Specific historical fulfillments match mathematical predictions	5.7 $\sigma$	4

## Open Gaps (Honest Accounting)

*[!warning] These are the known gaps. Naming them is stronger than hiding them.*

**Gap 1: The Specificity Bridge.** Papers 1–3 prove a Logos is necessary. Book IV tests Christianity against the constraints. But the framework could in principle be adopted by a sophisticated deist or modified monotheist. The specificity to Christ depends on: (a) the PROP-COSMOS data pointing to biblical timelines specifically, (b) the Knowledge-Truth cycle predicting incarnation as thermodynamic necessity, and (c) the [[Ten Laws]] mapping where Law 10 (Coherence = Christ) has no asymmetry term — the only law where physical and spiritual are one. These three together close the gap, but they should be made more explicit.

**Gap 2: The Free Will Term's Origin.** Every spiritual equation adds a free will term (\$R\$, \$I\$, \$A\$, \$B\$, \$W\$, \$F\$). Where does it come from mathematically? Proposed derivation: consciousness as self-referential observer creates a feedback loop absent in non-conscious systems. Self-reference introduces choice because the system can model its own future states and select among them. This is [[Gödel]]-adjacent — a system complex enough to model itself has undecidable propositions, and resolving undecidables IS choice. Needs formal proof.

**Gap 3: Consciousness Coupling Mechanism.** The framework depends on consciousness being fundamental (Axiom O5.1). Statistical evidence is strong (PEAR-LAB 6.35 $\sigma$ , GCP 6 $\sigma$ ). The mechanism — HOW consciousness couples to physical systems — remains open. This mirrors Newton's situation with gravity: he could predict its behavior precisely without explaining its mechanism. We adopt the same posture: the equations work, the data supports them, the mechanism is an open research question.

**Gap 4: Canon Formation.** The framework now spans 191+ axioms/theorems across multiple vaults, papers, and databases. A formal Canon process is needed to distinguish load-bearing results from exploratory work. Proposed criteria combine biblical canon formation (self-authenticating, doctrinally consistent, community-vetted) with scientific canon formation (accurate, internally coherent, broad scope, fruitful, falsifiable). Minimum viable process: derivation trace, coherence check against 22 core axioms, falsifiability statement, independent prediction, adversarial review, human sign-off, 30-day maturation period.

# [[Semantic Map]]: oo\_DE REVOLUTIONIBUS VERITATIS.md

---

## Summary

Axiom: 4 Claim: 10 EvidenceBundle: 8 Theorem: 2 Relationship: 8

## Tags (32 total)

- [Axiom] Existence of a morally good ground of mathematical truth (3de3422c)
- [Axiom] Logos as coherent ground of truth (1022c722)
- [Claim] Christianity satisfies all 20 axioms (009056ae)
- [Claim] Five alternative worldviews tested against constraints (ae4729fo)
- [Claim] Physical and spiritual laws share identical mathematical structure (b1a2c3d4)
- [Claim] Institutional entropy cycle is thermodynamically inevitable (c2b3d4e5)
- [Claim] Mathematics is man-made position formally closed by [[Soteriological Limit]] (a1b2c3d4)
- [EvidenceBundle] Probability of worldviews satisfying constraints (5929e128)
- [EvidenceBundle] Papers 1-3 derive requirements from foundational theories (4c263db5)
- [EvidenceBundle] PEAR-LAB 6.35 $\sigma$ , GCP 6 $\sigma$ , PROP-COSMOS 5.7 $\sigma$  (d3c4e5f6)
- [EvidenceBundle] Developmental cognition: ANS, helper/hinderer, moral universals (f1e2d3c4)
- [Theorem] Incoherence of [[Materialist Consensus]] (9506ed85)
- [Theorem] Incoherence of the [[Eternal Loop]] (b8940d1b)
- [Relationship] Axioms derive from information theory (001c765c)
- [Relationship] Christianity as fulfillment of axioms (f5192a5a)
- [Relationship] [[Master Equation]] variables and their roles (123bdaca)
- [Relationship] [[Ten Laws]] physical-spiritual isomorphism (e4d5f6a7)
- [Axiom] Existence of a morally good ground of mathematical truth (aab278ba)
- [Axiom] Logos as coherent ground of truth (b5c9822c)
- [Claim] Christianity satisfies all 20 axioms (072e1e24)
- [Claim] Five alternative worldviews tested against constraints (2e6817c8)
- [Claim] Physical and spiritual laws share identical mathematical structure (4cda8265)
- [Claim] Institutional entropy cycle is thermodynamically inevitable (1f4f6f42)
- [Claim] Mathematics is man-made position formally closed by [[Soteriological Limit]] (oe35edc8)
- [EvidenceBundle] Probability of worldviews satisfying constraints (1dcf3ef5)
- [EvidenceBundle] Papers 1-3 derive requirements from foundational theories (c4f54d03)
- [EvidenceBundle] PEAR-LAB 6.35 $\sigma$ , GCP 6 $\sigma$ , PROP-COSMOS 5.7 $\sigma$  (ef9393f9)
- [EvidenceBundle] Developmental cognition: ANS, helper/hinderer, moral universals (c3915952)
- [Relationship] Axioms derive from information theory (8861ccbd)
- [Relationship] Christianity as fulfillment of axioms (7cb8971e)
- [Relationship] [[Master Equation]] variables and their roles (7ad22db9)
- [Relationship] [[Ten Laws]] physical-spiritual isomorphism (2b8f8d4a)

## [[Mermaid Diagram]]

```
graph TD
  n0(["Axiom: Existence of a morally good ground of mathematical..."])
  n1(["Axiom: Logos as coherent ground of truth"])
  n2["Claim: Christianity satisfies all 20 axioms"]
  n3["Claim: Five alternative worldviews tested against constra..."]
  n4["Claim: Physical and spiritual laws share identical mathem..."]
  n5["Claim: Institutional entropy cycle is thermodynamically i..."]
  n6["Claim: Mathematics is man-made position formally closed b..."]
  n7(["EvidenceBundle: Probability of worldviews satisfying constraints"])
  n8(["EvidenceBundle: Papers 1-3 derive requirements from foundational t..."])
  n9(["EvidenceBundle: PEAR-LAB 6.35σ, GCP 6σ, PROP-COSMOS 5.7σ"])
  n10(["EvidenceBundle: Developmental cognition: ANS, helper/hinderer, mor..."])
  n11["Theorem: Incoherence of [[Materialist Consensus]]"]
  n12["Theorem: Incoherence of the [[Eternal Loop]]"]
  n13>"Relationship: Axioms derive from information theory"
  n14>"Relationship: Christianity as fulfillment of axioms"
  n15>"Relationship: [[Master Equation]] variables and their roles"
  n16>"Relationship: [[Ten Laws]] physical-spiritual isomorphism"
  n17(["Axiom: Existence of a morally good ground of mathematical..."])
  n18(["Axiom: Logos as coherent ground of truth"])
  n19["Claim: Christianity satisfies all 20 axioms"]
  n20["Claim: Five alternative worldviews tested against constra..."]
  n21["Claim: Physical and spiritual laws share identical mathem..."]
  n22["Claim: Institutional entropy cycle is thermodynamically i..."]
  n23["Claim: Mathematics is man-made position formally closed b..."]
  n24(["EvidenceBundle: Probability of worldviews satisfying constraints"])
  n25(["EvidenceBundle: Papers 1-3 derive requirements from foundational t..."])
  n26(["EvidenceBundle: PEAR-LAB 6.35σ, GCP 6σ, PROP-COSMOS 5.7σ"])
  n27(["EvidenceBundle: Developmental cognition: ANS, helper/hinderer, mor..."])
  n28>"Relationship: Axioms derive from information theory"
  n29>"Relationship: Christianity as fulfillment of axioms"
  n30>"Relationship: [[Master Equation]] variables and their roles"
  n31>"Relationship: [[Ten Laws]] physical-spiritual isomorphism"
  n0 --> n1
  n17 --> n18
  n0 -. -> n2
  n0 -. -> n3
  n0 -. -> n4
  n0 -. -> n5
  n0 -. -> n6
  n0 -. -> n19
  n0 -. -> n20
  n0 -. -> n21
  n0 -. -> n22
```

```
n0 --> n23
n2 --> n7
n2 --> n8
n2 --> n9
n2 --> n10
n2 --> n24
n2 --> n25
n2 --> n26
n2 --> n27
```

```
%% Styling
```

```
classDef axiom fill:#elf5fe,stroke:#01579b
classDef claim fill:#fff3e0,stroke:#e65100
classDef evidence fill:#e8f5e9,stroke:#1b5e20
classDef relationship fill:#f3e5f5,stroke:#4a148c
classDef process fill:#fce4ec,stroke:#880e4f
classDef link fill:#e0f7fa,stroke:#006064
classDef name fill:#fff8e1,stroke:#ff6f00
classDef ontology fill:#efebee,stroke:#3e2723
class n0 axiom
class n1 axiom
class n2 claim
class n3 claim
class n4 claim
class n5 claim
class n6 claim
class n7 evidence
class n8 evidence
class n9 evidence
class n10 evidence
class n13 relationship
class n14 relationship
class n15 relationship
class n16 relationship
class n17 axiom
class n18 axiom
class n19 claim
class n20 claim
class n21 claim
class n22 claim
class n23 claim
class n24 evidence
class n25 evidence
class n26 evidence
class n27 evidence
class n28 relationship
```

```
class n29 relationship
class n30 relationship
class n31 relationship
```

## The Logic

*Papers 1–3 derive requirements from information theory, thermodynamics, [[Gödel]], Chaitin, [[Shannon]], and Kolmogorov. At no point does any theological premise appear. The axioms are not designed to point at Christianity. They are designed to characterize mathematical truth.*

*The empirical evidence — pre-linguistic numeracy at 3 months, pre-socialized moral evaluation at 6 months — confirms that these are features of reality encountered by cognition, not invented by it.*

*The "mathematics is man-made" escape hatch is formally closed: any position that grounds mathematical truth entirely in finite agents must surrender necessity, universality, and cross-domain applicability — features our scientific practice depends on and cannot abandon.*

*Book IV checks which worldview satisfies all requirements.*

*Book V shows the physical and spiritual share identical mathematical structure — with one degree of freedom added: the freedom to choose.*

*Book VI shows why institutional corruption is thermodynamically inevitable and why incarnation is the predicted solution.*

*The proof generates the lock before you go looking for the key. That eliminates curve-fitting. That is prediction and confirmation, not retrofit.*

## Reading Order

![[CR\_14.png]]

For the mathematician or physicist: Paper 1 → Paper 5 → Paper 2 → Paper 3 → Paper 4

For the philosopher or theologian: Paper 2 → Paper 1 → Paper 3 → Paper 6 → Paper 4

For the skeptic: Paper 3 → Paper 1 → Paper 2 → Paper 4 → Paper 5

For anyone: "Coherence Before Conclusion" (essay) → Paper 2 → everything else

![[LKL\_14.png]]

David Lowe | *Theophysics* | 2025–2026  $\chi$

SEMANTIC TAGS

Axiom::3de3422c-7ad3-46e4-8add-8ed4d10096ff::"Existence of a morally good ground of mathematical truth":null% %tag::Axiom::1022c722-9bdc-4a36-8939-ae6134e5d4f2::"Logos as coherent ground of truth":3de3422c-7ad3-46e4-8add-8ed4d10096ff% %tag::Claim::009056ae-d36e-4735-8c1e-c644036555ea::"Christianity satisfies all 20 axioms":null% %tag::Claim::ae4729f0-8765-450e-adf3-f6d09947f34f::"Five alternative worldviews tested against constraints":null% %tag::Claim::b1a2c3d4-e5f6-

7890-abcd-ef1234567890::"Physical and spiritual laws share identical mathematical structure":null%%  
%%tag::Claim::c2b3d4e5-f6a7-8901-bcde-f12345678901::"Institutional entropy cycle is thermodynamically  
inevitable":null%% %%tag::Claim::a1b2c3d4-5678-9abc-defo-112233445566::"Mathematics is man-made position  
formally closed by [[Soteriological Limit]]":null%% %%tag::EvidenceBundle::5929e128-67d9-446a-adco-  
642c75a2963e::"Probability of worldviews satisfying constraints":null%% %%tag::EvidenceBundle::4c263db5-  
8173-40bc-9375-250a9f1bb48b::"Papers 1-3 derive requirements from foundational theories":null%%  
%%tag::EvidenceBundle::d3c4e5f6-a7b8-9012-cdef-123456789012::"PEAR-LAB 6.35 $\sigma$ , GCP 6 $\sigma$ , PROP-COSMOS  
5.7 $\sigma$ ":null%% %%tag::EvidenceBundle::f1e2d3c4-b5a6-7890-1234-567890abcdef::"Developmental cognition: ANS,  
helper/hinderer, moral universals":null%% %%tag::Theorem::9506ed85-aceb-440f-8353-  
079c44a316c5::"Incoherence of [[Materialist Consensus]]":null%% %%tag::Theorem::b8940d1b-742e-47fa-9ca0-  
b119441a6f3d::"Incoherence of the [[Eternal Loop]]":null%% %%tag::Relationship::001c765c-6300-40bb-900a-  
8273df42a1c9::"Axioms derive from information theory":null%% %%tag::Relationship::f5192a5a-bf8c-473d-8f72-  
769db40a2362::"Christianity as fulfillment of axioms":null%% %%tag::Relationship::123bdaca-8c3a-40e1-96b4-  
32f494e75e16::"[[Master Equation]] variables and their roles":null%% %%tag::Relationship::e4d5f6a7-b8c9-0123-  
defo-234567890123::"[[Ten Laws]] physical-spiritual isomorphism":null%% %%tag::Axiom::aab278ba-8270-  
4ae5-88fb-2311ff2b57a3::"Existence of a morally good ground of mathematical truth":null%%  
%%tag::Axiom::b5c9822c-be44-4637-ae11-646aeefdoc15::"Logos as coherent ground of truth":aab278ba-8270-  
4ae5-88fb-2311ff2b57a3%% %%tag::Claim::072e1e24-c139-4fec-a374-88eed408c180::"Christianity satisfies all 20  
axioms":null%% %%tag::Claim::2e6817c8-f66e-4da2-9949-78baa57547fo::"Five alternative worldviews tested  
against constraints":null%% %%tag::Claim::4cda8265-f928-4001-877b-888e841c1c35::"Physical and spiritual laws  
share identical mathematical structure":null%% %%tag::Claim::1f4f6f42-ob86-44b9-aa03-  
dc6080of8194::"Institutional entropy cycle is thermodynamically inevitable":null%% %%tag::Claim::0e35edc8-  
daa5-4ec3-a12a-6bf1241b23cf::"Mathematics is man-made position formally closed by [[Soteriological  
Limit]]":null%% %%tag::EvidenceBundle::1dcf3ef5-6915-4698-85e3-9771804e6fci::"Probability of worldviews  
satisfying constraints":null%% %%tag::EvidenceBundle::c4f54d03-ce57-4bee-b4d8-63f363235336::"Papers 1-3  
derive requirements from foundational theories":null%% %%tag::EvidenceBundle::ef9393f9-0ce6-49c9-933f-  
305faf60d8d1::"PEAR-LAB 6.35 $\sigma$ , GCP 6 $\sigma$ , PROP-COSMOS 5.7 $\sigma$ ":null%% %%tag::EvidenceBundle::c3915952-  
77a6-4cb8-977f-d43d40ecd53a::"Developmental cognition: ANS, helper/hinderer, moral universals":null%%  
%%tag::Relationship::8861ccbd-7d49-46f8-8d3d-e4629977bd02::"Axioms derive from information  
theory":null%% %%tag::Relationship::7cb8971e-a497-4dfe-a2eb-f213768b2cfe::"Christianity as fulfillment of  
axioms":null%% %%tag::Relationship::7ad22db9-3bb6-460e-8b83-a475ca15b221::"[[Master Equation]] variables  
and their roles":null%% %%tag::Relationship::2b8f8d4a-7207-4a8d-beb7-3492f83oaf2d::"[[Ten Laws]] physical-  
spiritual isomorphism":null%% %%--- END SEMANTIC TAGS ---%%