The Structural Laws of the Universe: Structural Necessity, Circulation, and Love

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Abstract

In this universe, there exist absolute principles that go beyond language and logic. They are:

- Structural Necessity
- Circulation
- Love

These are not just abstract ideas—they are structural realities shared by everything that exists in the universe. They function as fundamental *settings*, beyond explanation or reasoning. For example, we may be able to analyze **how** each atom exists, but we cannot explain **why** that atom exists in the first place, or **why** it operates according to certain laws. All we can say is: "That's just how it is." It's a structural given.

In the world of the manga *One Piece*, when someone eats a Devil Fruit, they lose the ability to swim. No one questions why—**it's just a rule of that world**. Likewise, the three principles of this universe simply *are*. They exist not because of a reason we can identify, but because the universe is configured that way. It's a setting beyond reason.

Did God design it? Is this universe some kind of simulation created by someone? We don't know. But one thing is certain: **this world operates by rules**.

1. Structural Necessity

Structural necessity refers to the principle that all phenomena exist not due to prior causes or goals, but because their existence fulfills an inevitable condition. The phenomena themselves are results, and the mechanisms behind them are constructed as a means to achieve those results, given the pre-existing conditions.

This paradigm contrasts with two traditional frameworks:

Causal Determinism:

Cause → Result

• Teleological Explanation:

Result (Purpose) → Cause (Means)

• Structural Necessity (Proposed):

Condition \rightarrow Result \rightarrow Cause

In this framework, **conditions** are often abstract and not subject to direct verification. Yet, they explain why certain outcomes must occur, and why certain mechanisms emerge to support them.

Example 1: Why do babies cry?

Condition:

Survival dependency — infants cannot survive alone and must be supported by caregivers.

Result:

Crying — an instinctive signal to elicit help.

Cause (Mechanism):

Neurological and physiological pathways in the brainstem and limbic system trigger crying in response to discomfort or unmet needs, via the vagus nerve and vocal cord activation.

This structure also clarifies why adults tend to feel compassion toward crying infants — because the condition of the infant's survival depends on another's care, the opposite condition (capacity to provide care) must co-arise in the environment. These dual conditions give rise to a dyadic system: the infant cries, and the adult responds.

Example 2: Why do people gain weight?

• Condition:

Systemic balance — ecosystems require distribution of resources to prevent dominance by a single species or individual.

• Result:

Weight gain — excess intake leads to stored energy.

• Cause (Mechanism):

When caloric intake exceeds energy expenditure, adipose tissue stores the excess as triglycerides. Hormonal regulation via insulin, leptin, and ghrelin governs appetite, metabolism, and fat storage.

This mechanism supports the condition by introducing natural disincentives (discomfort, reduced mobility, health risks) to unchecked consumption, promoting ecological equilibrium.

Example 3: Why do emotions and self-awareness exist?

Condition:

Adaptive continuity — living beings must optimize survival across time and uncertainty.

• Result:

Emergence of emotions and self-awareness to guide behavior and anticipate threats.

• Cause (Mechanism):

The limbic system (e.g., amygdala, hippocampus) generates emotions based on internal and external stimuli. Self-awareness arises from integrated activity between the prefrontal cortex and default mode network, allowing for time-binding, planning, and moral reasoning.

Emotions serve as internal feedback for decision-making under uncertainty, fulfilling the condition of optimized survival.

Example 4: Why is the world the way it is?

• Condition:

Collaborative survival — humans require complex cooperation structures to ensure group-level survival.

• Result:

Modern societal structures — roles, hierarchies, economies.

• Cause (Mechanism):

Human cultural evolution, social contracts, economic systems, and historical events shaped current global society. All are mechanisms that emerged to fulfill the underlying condition of interdependent survival.

Conditions, as referenced here, are often not empirically provable or directly observable. They operate as **existential axioms** — settings within which phenomena necessarily arise. For example:

- Why does the universe exist?
- Why did dinosaurs go extinct?
- Why did humans evolve in their current form?
- Why is the human body designed as it is?

These questions evade definitive scientific answers. However, under the lens of structural necessity, they can be coherently reframed:

Everything that exists does so because it fulfills a structural condition necessary for the continuity of the universe.

Moreover, structural necessity applies to universal outcomes, not to particular instances. For example, there are structural conditions that necessitate the fact that "infants cry," "rain falls," or "humans walk." However, the specific instances—which infant cries when, where the rain falls, or who walks how—are random. This apparent randomness does not contradict structural necessity; rather, it is part of it.

These conditions may not be scientifically falsifiable but serve as **structural rules or settings** — metaphysical preconditions within which all phenomena are bound to emerge. Structural necessity, then, is not merely an explanatory tool; it is a universal grammar of existence.

2. Circulation

Like the countless stars that are born and eventually vanish, and like their rotation and revolution, all things exist through cycles.

Consider water:

Ocean \rightarrow vapor \rightarrow clouds \rightarrow rain \rightarrow river \rightarrow ocean.

This hydrological cycle ensures that water remains pure, usable, and distributed across the planet.

Consider life:

Organisms are born, live, and die, becoming nutrients for others in the food chain. This continuous transformation sustains biodiversity and ecological equilibrium.

Consider the human body:

Cells regenerate, blood flows, breath cycles — without circulation, there is no life. Block the flow of blood, and tissue dies. Stop cell renewal, and aging accelerates. These are not metaphors, but biological necessities.

Consider society:

Money also circulates—it exists to keep society and people in motion. Goods and people, too, circulate through shifting roles and positions. Without this social circulation, stagnation, collapse, and inequality arise.

These examples may seem intuitive, but they are all reflections of the same universal structure: circulation is a precondition of sustained existence.

Even social behaviors, such as kindness or generosity, follow this principle. When one acts benevolently, one enters a cycle of positive reciprocity — not because of ethical doctrine, but because circulation, by its nature, creates echo and return. It is not a cultural value or moral teaching — it is a structural necessity. Like water, kindness that flows is purified and renewed; kindness withheld stagnates and decays.

Stopping circulation leads to degeneration.

- Stagnant water becomes toxic.
- Blocked blood vessels cause disease.
- A disrupted ecosystem that does not recycle life becomes unsustainable.

Thus, **to exist is to circulate.** Circulation is not just a pattern of motion — it is the reason things continue to be.

It defines purpose, health, longevity, and balance — across matter, life, mind, and society.

3. Love

Here, the word "love" refers not to emotion or romance, but to a deeper principle: the unconditional care for all things. The term "love" is appropriate precisely because it implies no expectation of return.

The fact that all things exist in a state of circulation means that nothing can exist in isolation. Every entity is sustained by others; every existence is interdependent.

For example, the human body is composed of countless cells and organs. If each part acted independently, ignoring the whole, the body would cease to function. The same principle applies to human society: if everyone lived without regard for rules or others, society would collapse.

While we may call it "love," at its core this is simply the structural reality that for one to exist, all others must also exist. And for all to exist together, cooperation is not a moral ideal—it is a structural necessity.

Indeed, due to structural necessity, this cooperation arises naturally. Cells and organs support the body without needing conscious intent. In society, most people follow rules and norms not because of constant moral reflection, but because that cooperation is built into the system. Just as cells support life unconsciously, your presence—whether you're aware of it or not—is helping sustain this society, this planet, and this universe.

In this way, cooperation—what we call "love"—is not a virtue but a condition of existence. It is a built-in requirement for sustaining the circulation of all things. Every being is born with this capacity, because it is necessary for the universe itself to function.

Conclusion

These three principles—structural necessity, circulation, and love—cannot be fully explained, nor can they be easily refuted. Why? Because everything that exists, including you and everything around you, is already operating within these principles. You sense them, even unconsciously, because you are a part of them.

When we reflect on the concept of death, these ideas become particularly vivid and accessible. Humans experience sorrow in the face of death. This emotional response can itself be understood as an expression of structural inevitability, serving as evidence that both circulation and love are instinctively embedded within us. The sorrow we feel arises from the structural necessity that human beings cannot survive in isolation. That very interdependence is part of a broader cycle, and the reason we feel sorrow most acutely in such moments is because we are also equipped with love as a fundamental structure of our being. Admittedly, this may be viewed as a matter of interpretation. However, it is equally difficult to present a definitive counter-argument—making its denial as speculative as its assertion.

To arrive at this understanding, the lens of *structural necessity* is essential.

By repeatedly asking "Why?" about existence and phenomenon, one will inevitably arrive at this view—because it is the foundational layer of all explanation. There is no deeper rationale than: "It had to be that way." Just as we cannot know why a game's rules are what they are unless we ask its designer, we cannot know why the universe is structured as it is. We can only say: "Because it had to be so."

The universe exists not because of a reason we can identify, but because the conditions for its existence were aligned. We, as humans, can only observe the phenomena that emerge from those conditions—and we are gradually working to understand the mechanisms behind them.

While causal and teleological reasoning operate on a binary axis—focusing solely on the relationship between cause and result—structural inevitability introduces a triadic axis: condition, result, and cause. When faced with a particular issue (the result), rather than attempting to alter it by directly pursuing its cause, one examines the conditions under which the result emerged. Through this lens, the cause naturally reveals itself as a structural necessity. By adding a third anchor point, the resulting cause becomes both clearer and more robust. Acting upon this cause then creates a direct path to resolving the issue in a way that fulfills the original condition.

If more people adopt this structural perspective and begin reexamining society from its foundations, humanity will inevitably move toward a better direction. Why? Because If we can understand the rules, configurations, and fundamental principles of this universe —in other words, if we can understand *what needs to happen*—then we can align our actions with that necessity—and finally address the *causes* that generate our current realities.

Modern human society violates all three of these principles. It focuses on causes rather than structure, chooses accumulation over circulation, and engages in competition and taking rather than giving with love.

To go against these laws is like pedaling a bicycle uphill against a headwind. Anyone can understand that it's far better to ride *with* the wind, coasting downhill, than to struggle against the natural flow.

Why did society need to form?
Why did money need to exist?
Why are politics and economics necessary?

This way of thinking may sound dramatic—but it has the power to reshape the world. Because it is not a philosophy, a belief system, or an ideology.

It is a principle of the universe.