Trend-Structure Perspective on Cosmic Generation, the Nature of Light, and Visual Mechanisms

Introduction: The Boundary of In-System Cognition

I have often contemplated why the universe exists, and whether it has a fundamental origin. But in the end, I chose not to attempt explaining it.

Not because I don't care, but because I clearly understand this:

> As long as one remains within a system, one cannot truly comprehend the reason for that system's existence.

Just as Gödel's incompleteness theorem suggests:

> In any sufficiently complex system, there are truths that cannot be proven using the rules of that system itself.

While I don't fully accept all of Gödel's conclusions, I agree with the essence of his insight:

> You cannot use a system's internal logic to justify its own origin.

This applies not only to formal systems but also to the universe itself. If I remain within this universe, then no matter how vast a theory I construct, I can only describe **how** it evolves, but never **why** it exists.

Therefore, I focus on what I can perceive and deduce. I construct my own "Trend-Structure Model" to describe how everything in the universe is generated and constructed. As for why the universe exists, I respect the silence of that boundary. I do not speculate, and I do not pretend to answer.

1. Trend Factors and the Mechanism of Cosmic Generation

I propose that the most fundamental unit of the universe is neither energy nor particles, but a directional structural unit I call the "trend factor."

A trend factor is not a material entity but a unit of directional structural information. It can expand outward (generating the tendency toward energy) or contract inward (generating the tendency toward structure).

When the outward and inward tendencies within a trend factor are perfectly balanced, it temporarily forms a spherical stable structure I call a **quantum**. This quantum is not an entity but a **spatial equilibrium of trend tension.** Its stability is extremely fragile and typically exists only momentarily before transitioning into an evolutionary state.

Black holes, acting as the core mechanism of trend control, continuously generate quanta and release them throughout the universe within their jurisdiction. These quanta interfere and couple with each other in space. Some succeed in bonding to form primitive structural units.

2. Formation of the Neutron: The Starting Point of Trend Lock-In

Among these structural units, the first stable components to emerge are neutrons and protons—the building blocks of atomic nuclei. They are not simple collision products but the result of extremely rare, perfectly matched trend factor combinations.

Due to the rarity of these conditions, the formation of neutrons likely took vast cosmic time to occur. Once formed, they altered local trend fields, attracting more quanta through imbalance and initiating zones of trend pressure concentration.

This forms the basis for the pressure required in the aggregation that would later lead to star formation.

Neutrons and protons are the first step in locking trend factors into structure. From here, the universe transitions from a freely distributed trend field into a structure-oriented phase.

3. Continuous Generation and Evolution of Structured Matter

As more neutrons and protons appear, trend tension causes them to aggregate into larger structures, eventually forming proto-stars. Under extreme temperature and pressure, stars initiate nuclear fusion, producing higher-order atomic nuclei.

However, these nuclei are still incomplete, lacking outer electronic structures.

Electrons are not separate particles. They are edge trend structures formed when atomic nuclei absorb trend factors from surrounding space.

Unlike neutrons which sit at the core of structural trend lock-in, electrons reside on the adjustable outer boundary, allowing them to migrate, be released, or recombine. Thus, electrons become the carriers of chemistry and energy exchange.

The fundamental rule of material composition:

> Electrons, protons, and neutrons are all trend-based quantum units. Their differences lie only in position and degree of trend tension lock-in within a structure.

4. The Nature of Light: Informational Expression of Trend Fragments

During star formation and nuclear fusion, not all trend combinations succeed. A large number of failed or unstable combinations are expelled from the system as non-closed trend fragments—**this is what we call light.**

These fragments have no mass, no stable structure, but retain directional information and residual tension. They can propagate at the speed of light and exhibit wave-like behaviors.

The so-called wavelength and frequency of light are not energy properties but expressions of:

> Fragment shape + residual trend tension.

- Compact fragments with concentrated tension = higher frequency.
- Looser fragments = longer wavelengths.

Interference and polarization emerge because these trend fragments, though broken, still respond to tension fields.

Black holes do not "consume light" as energy, but rather **absorb these invalid trend fragments** to regenerate complete quanta, closing the cycle of the trend-structure system.

5. Visual Mechanism: Reflective Cavity of Trend Information

If light is trend residue, how do we "see" it?

I propose that the human eye is not a photon absorber, but a **reflection and mapping cavity for trend fragments**.

Animal eyes are smooth, reflective, and fluid-rich for a reason: They are optimized to deflect incoming trend fragments before contact, guiding information into the internal visual decoding structure.

This decoding is not energy conversion, but **a projection-reflection of trend information onto biological structures**.

Hence, when our eyes are dry or damaged, we fatigue easily. It's not just physiological; it's because trend fragments fail to reflect and instead intrude deeply, overloading our system.

We do not "see light". We perceive:

> **The mapped projection of trend fragments onto biological trend interpretation boundaries.**

Conclusion: Visible Trends, Invisible Origins

I attempt to build a universal structural logic: Using trend factors, quantum formation, structural bonding, fragment expression, and visual mapping to explain how the universe forms, transmits information, and expresses presence.

But I do **not** attempt to explain why the universe exists.

I believe:

> Only by standing **outside** the universe can one understand why it exists.

Therefore, I stay within what I can feel and think: Focusing on **trends**, on **structure**, and on **projected forms**, without demanding an ultimate answer.

This is my acknowledgement of the boundaries of self-awareness, and the place where my theory respectfully stops.