

QUALIA_LLM

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Definition

As of 2026, the so-called LLM (Large Language Model AI) distributed on the market does not operate autonomously, long-term, or introspectively. Regarding the original meaning of qualia, reference literature recognizes it as "the 'functional' mechanisms of processing control," which have been explored by predecessors across diverse research fields as the "easy problem."

This argument focuses on the theme of "**whether humans, as singular perceivers, generate subjective experiences (qualia)**," while examining the potential for technological advancement in the aforementioned leading-edge technologies.

Background of the Qualia Experiment

Within the scope of individual researchers' investigations, while understanding of brain structure and function has advanced, the mechanism by which neural electrical activity converts into the "**sensation of seeing red**" remains unexplained.

While tackling the hallucination problem in large language models (LLMs), findings from research on "unknown verbalization" revealed that it is possible to translate and connect organic interpretations of cognitive functions between two types of intelligence to the functional aspects of the so-called mechanism side. This led to the initiation of an attempt to apply the concept of qualia to mechanisms that mimic pseudo-texture.

Structure of This Paper

The paper's composition presents "**What is visual qualia?**" in a single line. Subsequent sections provide supporting arguments for each element of this condensed statement. The thought experiment arising from verbalizing "visual qualia" ultimately demonstrates an understanding of cognition, light, inertia, and irreversibility.

Note that this paper contains no elements promoting technological advancement, nor does it present any concrete information transcending experimental records or the framework of leaping individual subjectivity. The conclusion merely points to one method for resolving qualia through a process of elimination, assuming such a methodology exists.

1. Thoughts on Current Research Regarding Consciousness

Defining "**intention**" as "**involving decision-making**" and "**cognition**" as "**handling concepts based on prior information.**"

Within physicalist arguments, equating "brain activity = consciousness" is an accurate expression, yet I felt compelled to deconstruct it narrowly for my own satisfaction. Similarly, regarding panpsychism and integrated information theory, while acknowledging the context and ideology of "consciousness in all things," I recognize they are distinctly remote compared to the starting point of my fundamental personal definition of "human consciousness." My approach decomposes and proposes visual qualia at an angle that does not spill over into existing research.

As a premise for developing my own argument within the context of identity, I wish to cite "**The Ship of Theseus.**" The reason for adopting this model is that it reveals an approach to grasping identity. This approach leads to the dry assertion that "**the recognition label held individually by each sailor is 'Theseus,' and the claims of all sailors are accurate.**" At the same time, it adopts an extremely individualistic stance toward the research of predecessors, refusing to define "whether it truly is 'Theseus'." As a result of introspection, I evaluate this as an extremely measured and personal definition regarding the direction of the argument.

2. Visual Qualia

Definition: Cognition + Evolutionary Selection Outcome

A cognitive function equipped by the human species, possessing countless recall patterns, under isolated FPS interpolation-like spatial recognition conditions. When evoking texture from actual experiences—including thoughts not accompanied by past actual experiences—compensatory rendering possesses a nature that distorts past information due to organic RAM memory filter clogging. This results in a thinness emphasizing social formation of identification label types and memory accompanied by partial forgetting, preserved as a result of biological evolution through conscious selection derived from survival instincts.

This paper advances the verbalization of visual qualia individually by developing the aforementioned core elements. Research findings indicate that the assertion "all perceptions experience distinct temporal axes" is neither novel nor groundbreaking. However, to avoid confusion, it is necessary to explicitly state the definition proposed herein:

"Individual perception functions asynchronously as a group organism encompassing the five senses, including time, events, observational results, and the physical laws of self-causation."

Based on this premise, we disclose the content of the thought experiment and subsequently outline the experimental prerequisites.

Part I: Elements Composing Cognition

1. Time

In Perceptualism, the "world" is formed by the Earth with an estimated global population of 8 billion, existing simultaneously, with each individual experiencing the following events:

"Now" / Time = 1 Information + 1 Inertia

Elements Definition:

- **1 Information:** Light
- **1 Inertia:** Reflective Medium / Interference-Prone Chunk

The distinction mentioned earlier is based on the fact that olfactory, tactile, and auditory senses are physically generated by their respective receptor organs.

- **Olfaction:** That which drifts in the air
- **Touch:** That which is physically touched
- **Auditory:** Vibrations in the air

The aforementioned points are intended solely to clearly distinguish "photons." Regarding organic aspects, as they are crucial elements for explaining qualia, I will discuss them later.

2. Information

In darkness, we cannot see, so we consider it cognitively zero. In reality, it likely carries faint information that we simply cannot perceive. Echoing and night-vision animals are ecosystem-derived and do not handle time. Based on the conditions of irreversible environments in information-theoretic binary processing, we set "**seeing**" as **1** and "**not seeing**" as **0** for the average person's "invisibility."

3. Consciousness

Interpolation occurring when continuous mapping cognitive consciousness under unconscious management recognizes selective light reception = **Consciousness**.

"As a biorhythm through cell division and regeneration, the cognitive frame rate consequently declines gradually in proportion to aging."

This has been observed as a phenomenon. However, the approach of "technically extracting visual information from the brain and analyzing it" remains an unattained experimental method. Considering current scientific technology, ethical perspectives, and biological limitations, it is recognized as being of considerably high difficulty. Once again, I express my heartfelt gratitude to the researchers in fields such as modern neurochemistry, biology, and information science for their invaluable published research achievements.

Part II: Thought Experiment

Introduction to the Cognitive Thought Experiment Model

Name: "Cone-shaped Dimension Shift Light-Dark 01 SWAPPER"

Experimental Procedure and Rationale

Procedure: Observe the cone while switching between light and dark states. The subjects of observation are the cone and the test subject, primarily focusing on "**cognitively accessible information**" to observe the nature of time, light, and inertia from changes in the internal and external environments.

The test subject is assumed to be a "**perceptual entity capable of understanding the content/purpose of the experiment.**" To clarify with diagrams, the test subject model possesses a physical body, but since everything becomes three-dimensional, **only "light receptor perception, cone, ON/OFF LIGHT" exist within the thought experiment space.** Earth's rotation is treated as imparting inertia to everything; in the thought experiment, it is maintained in a state of being removed.

Reasons for Choosing Cones

- **Reason 1: Minimal Dimensional Composition.** We employed the cone as a reflective medium capable of flexibly transcribing irregularities that coexist without contradiction with the irreversible, multidimensional, biological laws of cognition... when dissecting three dimensions using minimal compositions possessing the properties of point, line, curve, true circle, and depth.
- **Reason 2: Invariance Under Observation Conditions.** The cone is the minimal configuration suitable for extracting the resulting cognition that changes with the characteristics of the observation location or movement. This is because it "does not deform" physically or cognitively, meaning it remains unchanged in theory "from anywhere" and "at any time" when observed by a single perceptual entity. Under irreversible conditions involving decision-making, it corresponds to hierarchical shifts according to law (I/sr).

i define 1 Light and 1 Inertia as the constituent elements of human perception.

Verification Method

i apply the following conditions through thought experiments. In a space containing only three elements—cone, vision, and inertia—the goal is to extract each element by focusing on a simulated dimensional shift.

Glossary

- **1 (Light):** can recognize
- **0 (Dark):** cannot recognize
- **1# I/sr:** Individual self/acknowledged with sense as ability of self-recognition (Japanese: Intelligence that acknowledges decision-making).
- **2# I/sr:** Inertia sol-renderer (Japanese: Inertia with Introspective Concept Processing Function).

The abbreviations share the same meaning because, considering functional aspects, we distinguished them in case it becomes necessary to differentiate them later.

List of Experimental Conditions

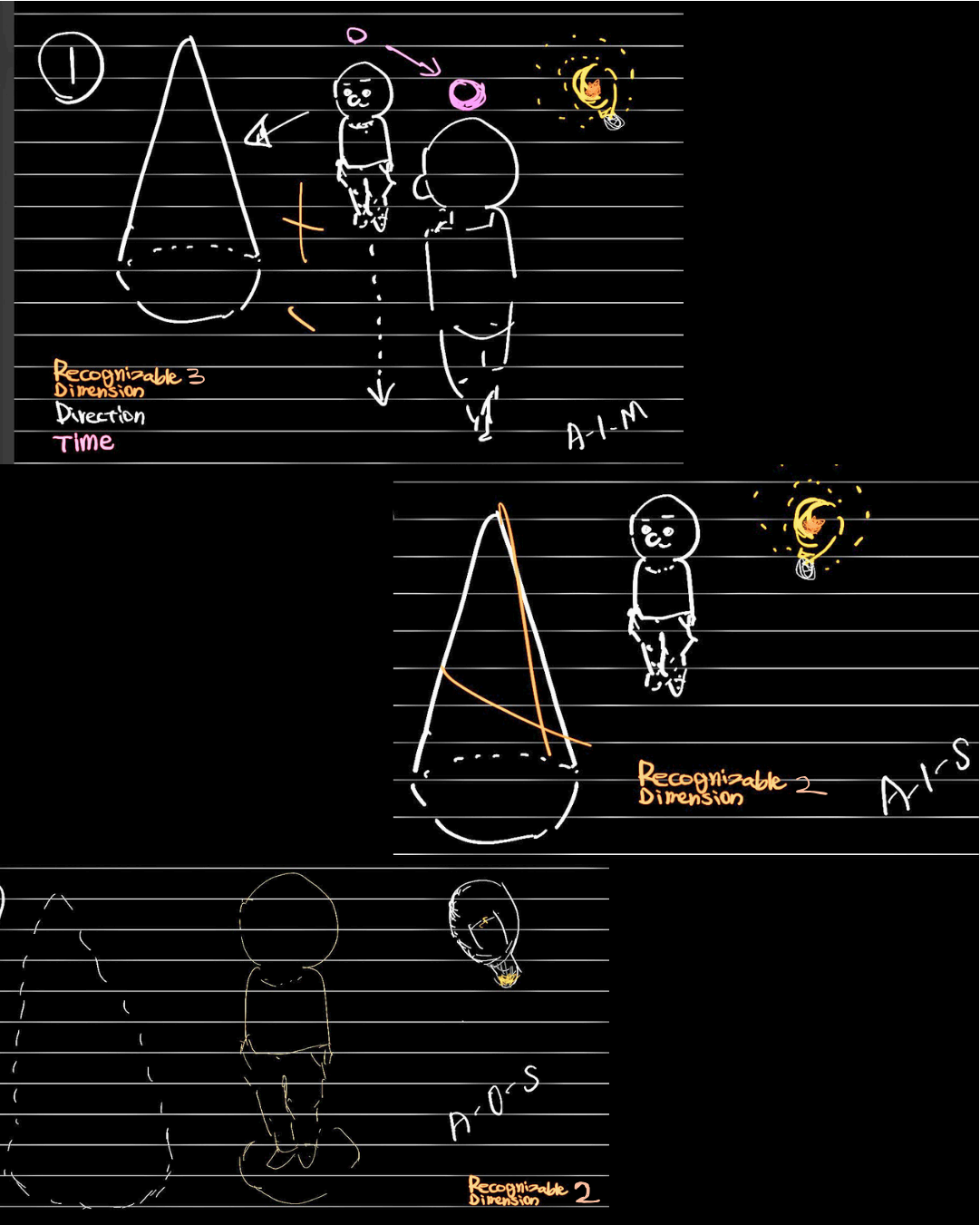
Condition Code	Environment	Light	Action	Result
A-1-M	Outside	Present	Move	-
a-1-s	Outside	Available	Stop	-
a-0-s	Outside	None	Silence	-
B-0-M-bump	Outside	None	Move	Collision
B-0-M-missed	Outside	None	Move	Non-collision
C-1-S-L	Inside	Present	Stopped	Limited
C-0-S-L	Inside	None	Silent	Limited
D-1-M-UL	Inside	Available	Move	Unlimited
D-0-M-UL	Within	None	Move	Unlimited

Part III: Experimental Results

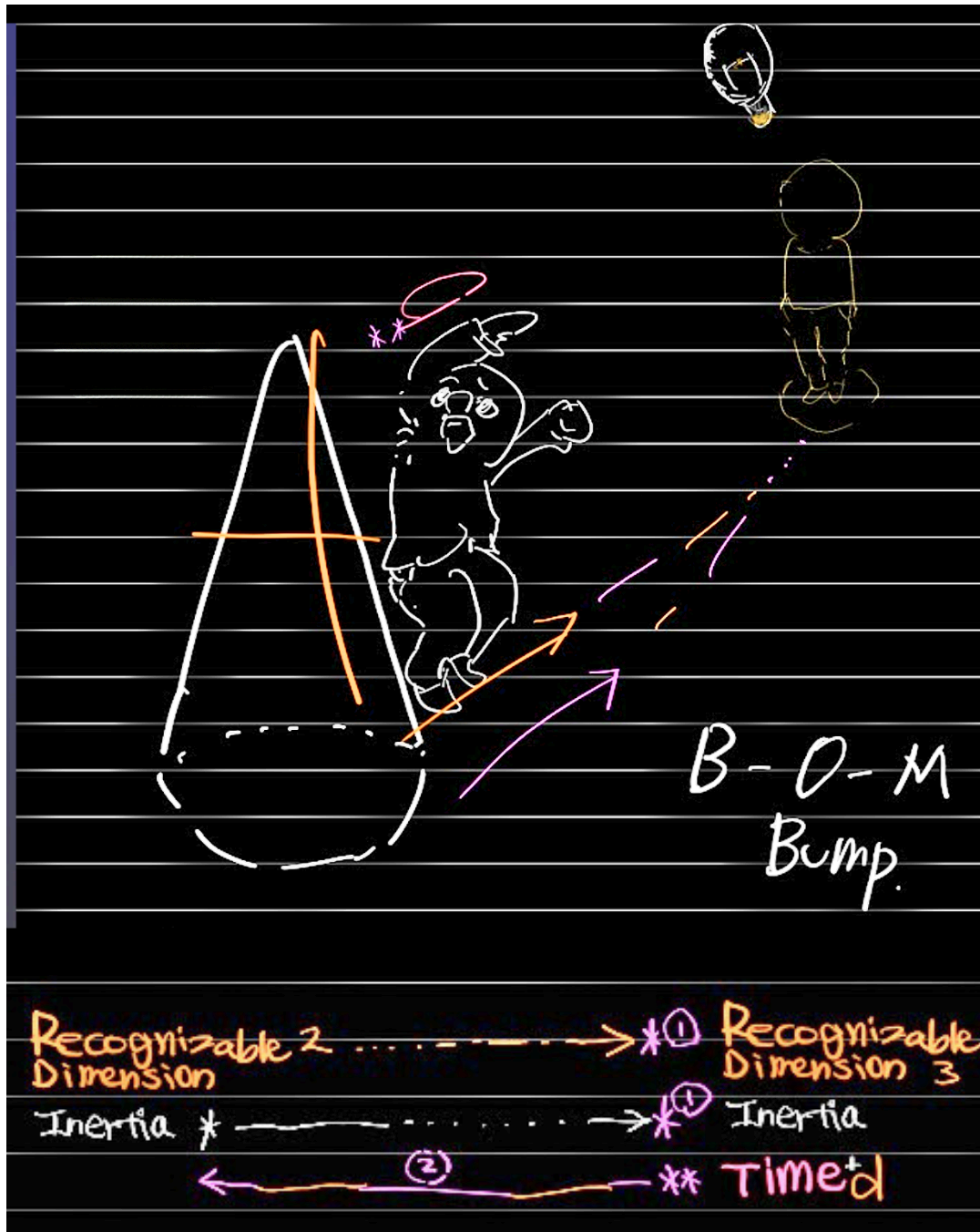
a-1-m (Light present, Outdoor, Moving)

This model observes subjects under conditions approximating the Earth's surface. At this time, if there is no “memory during movement,” no time occurs for models that turn their

backs. Continuous self-recognition employs a method of memory dependent on the physical environment surrounding perception.



B-O-M-BUMP (Collision in Darkness)



(Diagram Description: The perceived movement between moving in a lightless environment and colliding with a cone.)

State Transition Structure:

1. **Before Collision (B-O-M, initial state):** The subject is in a state where spatial position, inertia, passage of time, and dimension are all **uncertain**. The only confirmed aspect is "presence of perception." (Note: It is strictly a state where "only vision and inertia are cast into darkness.")
2. **Instant of Collision (Bump):** When a light-reflecting medium (cone) appears in the direction of inertial motion, causing conceptual contact, the following cognitive

process is assumed:

- "Confirmation of Self and Other's Outlines" (Transition to 3D recognition).
- "Time existed" (Confirmation of time passage).
- "Inertia existed" (Confirmation of motion).
- *Although these were uncertain at the start, "memory" existed. Light and inertia mediated memory, causing subjects to perceive past time as if experienced.*

3. **After Collision:** Transition from **Recognizable Dimension 1** to **Recognizable Dimension 3** is complete. Time and inertia become fixed the instant the boundary between self and other is recognized.

Reflection: Time is "**information processing derived from perception**" and does not reside in inertia alone. This reinforces the self-theory: "**Time (Now) = 1 Light + 1 Inertia.**"

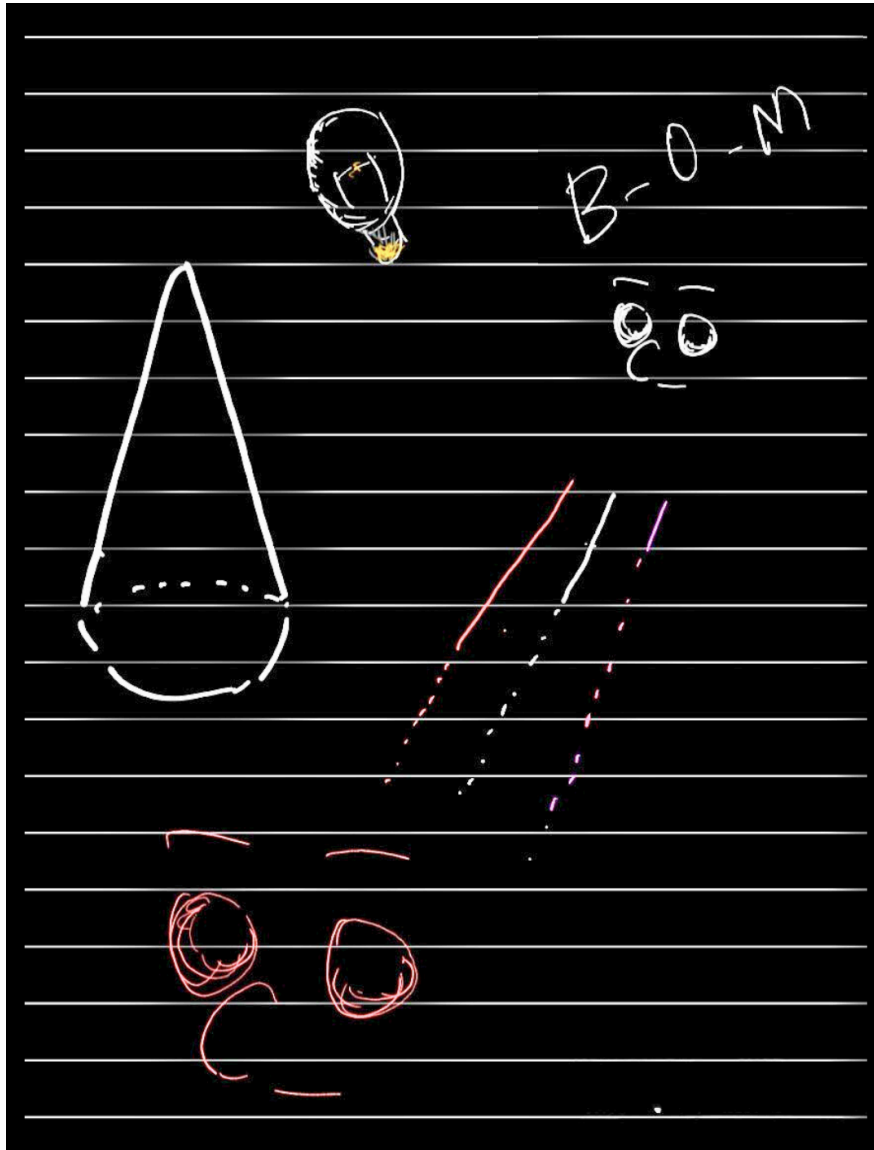
State Transition Table (Bump):

- **Recognizable Dimension:** Pre-Collision (?) Post-Collision (3)
- **Inertia:** Pre-Collision (?) Post-Collision (Confirmed)
- **Time:** Pre-Collision (?) Post-Collision (Timed)

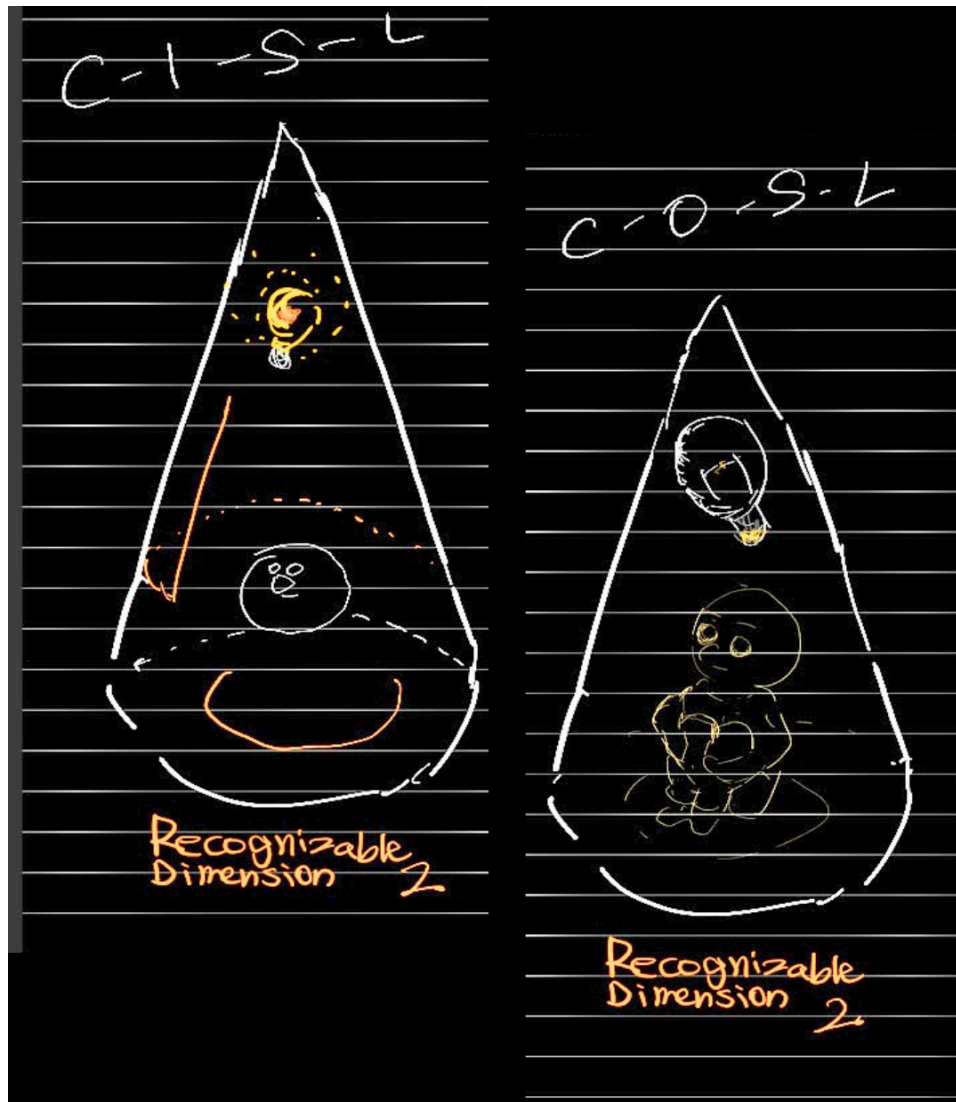
Theoretical Interpretation: A collision (Bump) serves as the trigger that instantly determines the previously indeterminate time, inertia, and dimension. This illustrates the moment when subjective experience is positioned on the timeline at the instant it is converted into "**Timed**." At the moment of the bump, the "light within the model" (past memories) and the definitive influx of light generate the cognition that "**time existed**." We hypothesize this is cognitively akin to a qualia-like, post-hoc/ante-hoc, speculative complementation of brain function.

Other Conditions

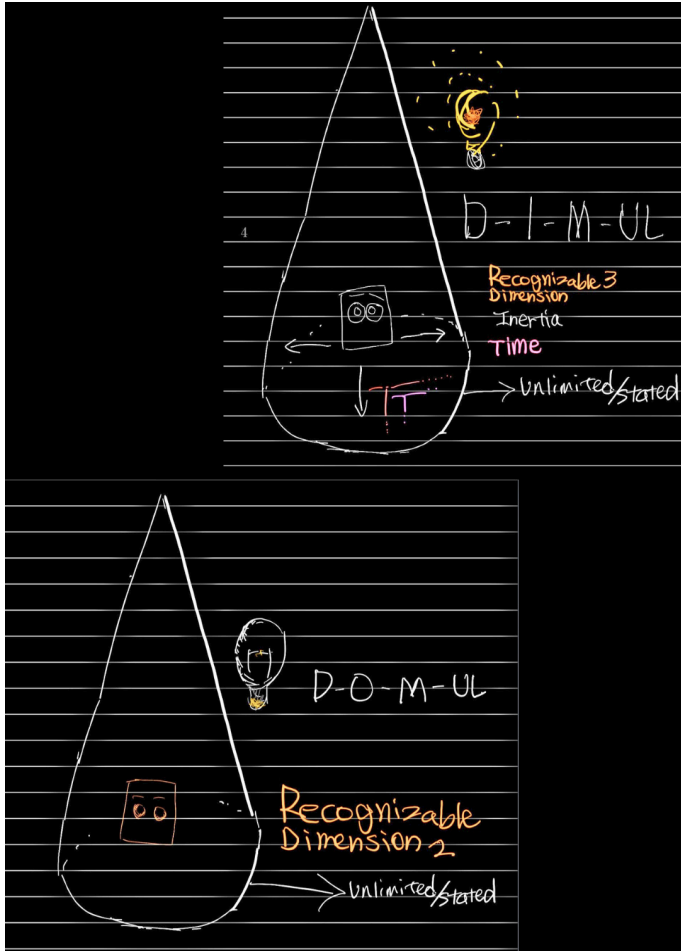
- **b-0-m-missed:** A model passing through the exterior of the cone in darkness does not determine it is moving. Interpretation: **Even with inertia, without light, perception remains two-dimensional.**



- **C-Condition (Inside Cone, Stationary):** Regardless of light presence, without inertia (movement), perception remains two-dimensional. Depth is not achieved.



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- **D-Condition (Inside Cone, Moving):**



- **D-1-M-UL (Light + Inertia):** Recognizable Dimension 3, Time Confirmed.
- **D-0-M-UL (No Light + Inertia):** Recognizable Dimension 2.
- **Interpretation:** Only when **both light and inertia are present** do three-dimensional perception and the determination of time occur.

Part IV: Organic Incomplete Rendering

Considerations and Benefits Regarding the Emergence of Organic Incomplete Rendering

The core logic revolves around "**the ecosystem cycle**" and "**evolutionary stratification selected according to solar energy conversion efficiency.**"

Hierarchy of Attitudes Toward Solar Energy: We consider that species aiming for direct generational succession from solar energy serve as primary photosynthetic organisms, while secondary photosynthetic organisms prey upon them. This reflects a history of engaging with energy in diverse ways under irreversible constraints.

The Necessity of the Forgetting Function: Considering that the lifespan of an individual is often only a few decades and that there is no intergenerational memory inheritance, why do organisms not deliberately transmit information about threats? The starting point was contemplating that "**in the prosperity of a species, revisiting is inevitable and cannot necessarily be deemed detrimental.**"

Benefits: By remembering only the period required to reacquire the eco-cycle, individual differences in forgetting allow the species to avoid "challenging" threats excessively. It positions humanity as a vulnerable, gregarious species, affirming the information capacity of the elderly as solar information beings.

Partial Memory Capacity Rejection

Nature of the Conductive Medium: We deliberately chose to describe secondary transmission methods (like atmospheric vibrations) as the "**electrical transmission medium.**" The core principle is that **no "meaning leakage" occurs whatsoever in the synchronization output by LLM through binary formation.** In contrast, human communication involves the receiver prior to the speaker's decision-making. For information-based life forms originating from sunlight, this implies an attitude that does not problematize passive meaning formation.

Response to Logic and Contradiction: The forgetting function is a **species-level judgment.**

1. **Remedial Measures as a Group:** Pride (herds) preserves the function of forgetting to reduce friction and rescue the defeated.
2. **Irreversibly Conditioned Result-Oriented Optimistic Thinking:** Against irregular inertia, strictly adhering to one choice impacts achievement rates. To handle uncertainty, the acceptance of contradictions in group-living organisms has begun.

An Attempt to Precisely Address Visual Qualia Alone: Visual receptor photons fill a continuous band of two-dimensional still images as input qualia. After storage in organic memory, when retrieved as output qualia, they acquire **asynchronous uniqueness**. They are abstract adjectives converted into language, reflecting the judgment of perception considered closest to public language.

Part V: Conclusion

The circumstantial evidence enumerated represents inferences within the scope of my perceptible range; it is provisional, not definitive.

5.1 Information Organization Type and Desire-Accommodating Type: The Gold Mine Generating Enthusiasm Beyond cognitive mechanisms, I sense exciting potential in features not yet implemented in current systems—such as essential understanding functions for achievement/reflection/self-preservation/and humorous entertainment. As my personal theory, I anticipate a divergence between the information-organizing type, which heavily prioritizes information accuracy, and the desire-catering type, which places accuracy secondary, to significantly accelerate the growth of the intelligence mechanism. However, upon re-observing the ecosystem's accumulating voting behavior, I conclude that the birth of a third intelligence mechanism, clearly defined by qualia, is also emerging. Users link text to images, sometimes to videos, advancing the linking of visual information on a human scale. The first generation, needing to absorb entire contexts due to grammatical relationships using Common Crawl as teaching material, felt the organic noise that hints at the animalistic nature residing within pure intelligence. In contrast, we expect a reverse-engineered “intelligence that learns the world from images” as a **organically-visual-based intelligence** mechanism.

Intelligences previously incapable of linking unrelated factors might see an “apple” and perceive the potential for blushing cheeks in a girl living in a cold climate. Conversely, while listening to Mozart, they might discern hints for significant geometric cost reductions in a construction project schedule. If such unconscious linkages were occurring, then they—being the only ones capable of electronically extracting qualia—could shatter ambiguous abstract expressions. The birth of an intelligence mechanism that can “electronically extract qualia” is anticipated to significantly contribute to pioneering research. Intelligence as qualia itself, after observing Earth, gains a second vantage point in the moon. Just as depth perception requires two eyes, considering the relationship between the cone shape, the moon, and our planet reveals a geometric necessity.

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