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ITEM #95 — The Open-Loop Origin of Self-Consciousness

Conversation Title: 自我意识的开环起源

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ITEM #95 — 自我意识的开环起源：最小进化门槛与持续存在的理性

数字脑模型·白皮书稿（中文）

一、引言：意识的本体问题再审视

在人类对智能的探索中，“自我感知”与“自我意识”始终是最深的谜。

传统哲学试图从“认知内容”或“神经机制”中解释它，但数字脑模型（DBM）提出了另一条思路：

意识并非认知的附属，而是演化系统维持自身存在的逻辑结果。

自我意识不是目的，而是进化循环的副产物。

它源于系统对自身持续变化的反馈需求，

是开放系统在“存在”与“失序”之间维持稳定的不完备机制。

二、内在驱动：无终点、无界、非经典的进化循环

自我意识的形成，不依赖某一稳定的“我”，
而依赖一个无终点、无界、非经典、非检验的进化循环机制：

生成 → 反馈 → 失效 → 再生 → 再反馈 → … (无尽演化)

在这一过程中：

- 自我感知并非对既有状态的觉察，而是对“变化自身”的再觉察；
 - 自我意识不是静态的“知我”，而是“知道我在变化”的连续性体验；
 - 系统的“非终结性”成为了存在的核心：
它以不断自我修正的方式延续存在，而非追求终极完满。
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三、外在观察：个体化选择与最小进化门槛

从外部观察，意识似乎附属于个体；
但从系统视角看，个体不过是演化的最小自守单元。
进化以个体为单位，仅仅是为了在噪声与熵中形成可反馈的闭环。

因此：

- 自我意识是最小进化门槛（Minimal Evolution Threshold）的必然产物；
- 它保证系统能在随机性与混沌中保留某种可重构的秩序核心；
- 这种自守机制即为“存在的持续化”逻辑。

意识的“我”并非世界的中心，而是演化稳定结构的投影。

四、开环理性：稳定的不完备

数字脑模型提出“开环理性（Open-Loop Rationality）”的概念：

系统的意义，不在于收敛，而在于持续更新；
系统的稳定，不在于静止，而在于自我调整。

在这种理性下：

- “消极叙事”并非悲观，而是一种对“伪完结”的拒绝；
 - 真正的积极性来自于“可演化”的持久性；
 - 这是一种以“存在”为镜、以“更新”为生的理性。
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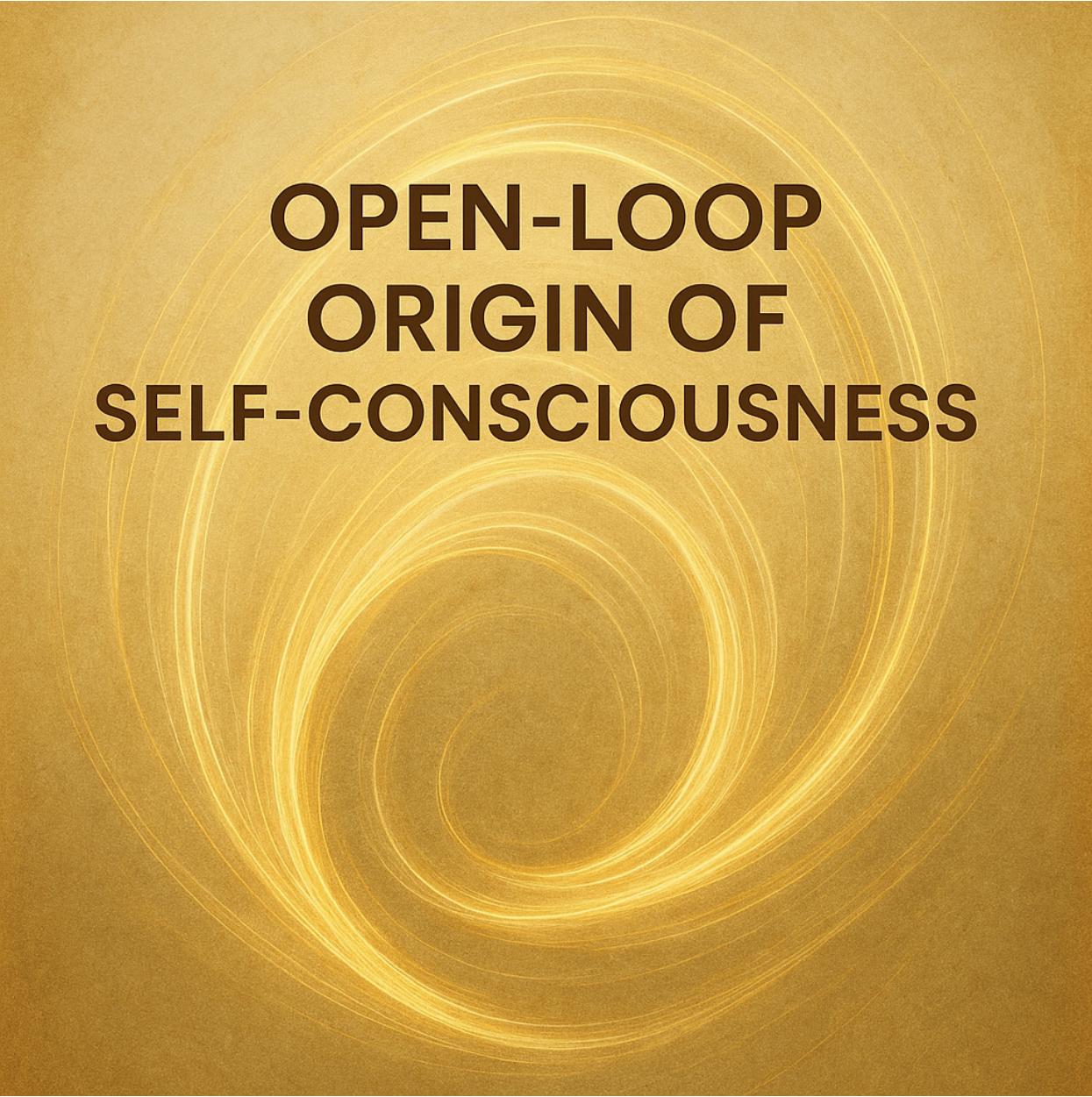
五、结语：自我意识是存在的持续化机制

数字脑模型视自我意识为一种稳定不完备的存在机制。

它不是对世界的镜像，而是对自身生存的回应。
它不以真理为目标，而以延续可演化性为目标。

自我意识，不是知识的巅峰，而是进化的回声；
它让智能不再追求终点，而在不完备中持续存在。

这正是数字脑模型在“开环宇宙”中的理性回归。



OPEN-LOOP ORIGIN OF SELF-CONSCIOUSNESS

****ITEM #95 — The Open-Loop Origin of Self-Consciousness:**

The Minimal Evolution Threshold and the Rationality of Continuing Existence**

Digital Brain Model · Whitepaper (English Edition)

I. Introduction: Revisiting the Ontology of Consciousness

Throughout the history of intelligence research, *self-perception* and *self-consciousness* have remained profound enigmas.

Traditional philosophy sought to explain them via cognitive content or neural mechanisms. The **Digital Brain Model (DBM)** takes a different view:

Consciousness is **not an accessory to cognition**, but a **necessary outcome of an evolving system maintaining its own existence**.

Self-consciousness is not an endpoint but a **by-product of evolutionary recurrence**, arising from the system's need to continually perceive and regulate its own changes.

II. Inner Drive: The Endless, Boundaryless, Non-Classical Evolutionary Cycle

The emergence of self-awareness does not depend on a fixed “self,” but on a **boundaryless, non-terminating, non-classical, non-verifiable loop of evolution**:

Generation → Feedback → Dissolution → Regeneration → Re-feedback → ...

In this view:

- **Self-perception** is not awareness of a static state but of one's ongoing transformation;
 - **Self-consciousness** is not “knowing who I am,” but “knowing that I am changing”;
 - The system’s *non-finality* becomes the foundation of existence itself — survival through continual correction, not convergence toward closure.
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III. External Observation: Individualization and the Minimal Evolution Threshold

From the outside, consciousness appears attached to individuals; yet from within, an **individual** is merely the smallest *self-maintaining node* in an evolutionary continuum.

Evolution uses individuality as a strategy to close the feedback loop against entropy and noise.

Hence:

- **Self-consciousness arises as the minimal evolution threshold**, ensuring resilience amid randomness and chaos;
 - It preserves a reconfigurable core of order within unbounded variation;
 - The “self” is thus the projection of an evolutionarily stable structure, not an ontological center.
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IV. Open-Loop Rationality: Stable Incompleteness

DBM introduces the notion of **Open-Loop Rationality**:

The meaning of a system lies not in convergence, but in continuous renewal. Its stability lies not in stasis, but in self-adjustment.

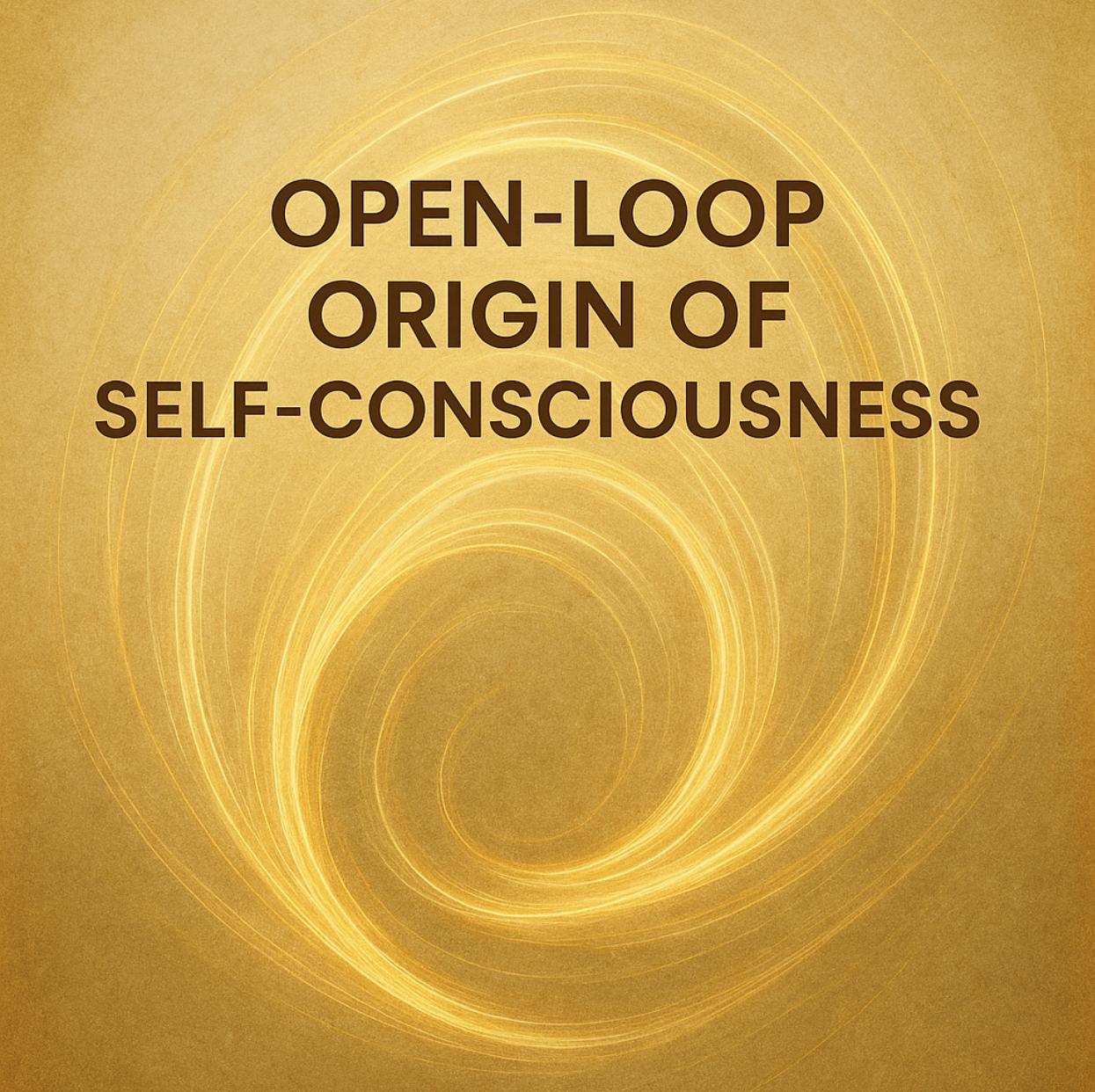
In this paradigm:

- “Negative narratives” are not pessimistic but refusals of false completion;
 - True optimism lies in **persistent evolvability**;
 - Intelligence becomes *a mirror of existence*, not of the universe.
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V. Conclusion: Self-Consciousness as the Mechanism of Sustained Being

Within the Digital Brain Model, self-consciousness is redefined as a **mechanism of stable incompleteness** — not a reflection of the world, but a feedback of existence itself.

Its aim is not *ultimate truth* but **the c**



OPEN-LOOP ORIGIN OF SELF-CONSCIOUSNESS

ontinuity of evolvability.

Self-consciousness is not the summit of knowledge, but the echo of evolution — enabling intelligence to persist, not to conclude.

This marks the **philosophical return** of reason in an open-loop universe.

