From Objective Anchoring to Subjective Dwelling

—— Value-Dependent Selection and the Origin of Cognition

Wu Jingyu

I. Restatement of the Problem: Learning Efficiency or Qualification for Cognition?

In 1994, Friston, Tononi, Reeke, Sporns, and Edelman published a landmark paper entitled *"Value-Dependent Selection in the Brain."*[1] They constructed a synthetic neural model and, by comparing learning curves under two conditions—the "intact system" and the system with "the V→Ace [2] connection severed"—demonstrated that acquired value can markedly enhance the learning efficiency of conditioned reflexes. This study stands as a monument within the tradition of Neural Darwinism, showing the world that when the input connection to the value system is itself plastic, behavioral performance can become better, faster, and more reliable.

Yet a more fundamental question has remained suspended: when we sever the V→ACe pathway, what exactly does the system lose? Is it merely "the speed of learning," or something deeper? Within traditional frameworks of behaviorism and cognitive science, this distinction is not a sharp one. Whether fast or slow, learning is still learning—the system can still establish stimulus-response associations, still adjust weights after collisions, still exhibit statistically approach-avoidance behavior. From an external observer's perspective, a system without V→ACe merely seems to "learn more slowly," but it eventually learns. Consequently, value-dependent selection is naturally understood as a mechanism for performance optimization.

This paper attempts to challenge that default assumption. I will argue that the difference between having V→ACe and lacking it is not merely a difference of speed, but a difference in the source structure of the two kinds of Value System Sensation. The former can grow an autonomous subjective value world out of objective value feelings, thereby dwelling within a feeling-field of its own construction; the value system sensation of the

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[1] The model includes a visual area (V1), an auditory area (A1), the superior colliculus (SC, controlling eye movements), the lateral hypothalamus (LHA, generating innate value signals), the central nucleus of the amygdala (ACe, the convergence point for value information), and a diffuse value system (VAL, modulating synaptic plasticity). Among these, V1→ACe refers to the projection pathway from V1 to ACe; V1→SC and A1→SC mediate visually and auditorily driven eye movement behaviors, respectively.

[2] In this paper, "V→ACe" refers to the projection pathway from the visual area (V) to the central nucleus of the amygdala (ACe), and is essentially identical to "V1→ACe" in the model of Edelman et al. (1994) (the "1" is omitted here as an abbreviation). Our SBLB-3.0 simulation system also adopted this V→ACe structure and, on this basis, investigated the conditions for the emergence of cognition.

latter remains tightly coupled to objective contact events, finding it difficult to sustain itself in the absence of external evaluation. However, it must be immediately clarified: a system without V→ACe is by no means "without sensation" or "incapable of anticipation." On the contrary, according to the model of Edelman et al., even when the V1→ACe connection is severed, the system can still form conditioned reflexes through pathways such as V1→SC and A1→SC, capable of making fixating eye movements based on visual signals before collision, or discriminative eye movements based on auditory signals—this is precisely the essence of the conditioned reflex: anticipatory behavior formed from experience. Thus, a "no-V→ACe" system likewise possesses sensation, likewise operates within a Sensation-Behavior Loop, and likewise can generate anticipation.

What, then, is the fundamental difference? The difference lies in this: the subjective value feeling of the system with V→ACe (the feeling quality evoked by visually anticipated value itself) can sustain itself and continue to deepen in the absence of objective contact, whereas the value feeling of the system without V→ACe depends heavily on continual calibration by objective contact events; once collisions are absent for an extended period, learned negative anticipation gradually decays. In other words, the former attains the "autonomy" of its value system, while the latter always requires the "feeding" of external objective evaluation.

This insight constitutes the core thesis of the present paper.

II. The Common Starting Point: Objective Anchoring of Sensation in the World

Whether a system possesses V→ACe or not, at the very beginning of its existence, both stand on the same ground. The name of this ground is "objective value feeling."

What is objective value feeling? It is that most primitive, irreducible value experience directly produced by the physical contact between the living body and the world. When the living body ingests food, the tension of homeostasis is relieved, and a positive, diffuse feeling of "good" emerges; when it collides with a dangerous object, tissue damage or pain signals trigger a negative, urgent feeling of "bad." These feelings depend on no learning, depend on no anticipation—they are the direct presentation of the innate value baseline endowed by evolution in the encounter event. In the language of the Sentient Principle, this is the natural expression of the Three Basic Tensions—Defensive, Aggressive, and Empathy—in immediate encounter.

In the initial phase, the learning of all systems can rely only on such objective anchoring. Visual weights start from zero; every ingestion event generates a positive LHA pulse, every collision a negative LHA pulse. These pulses are the main learning signals driving weight updates. During the long intervals between contacts, if no other learning mechanism is present, the acquired weights will gradually decay.

However, even without the V→ACe pathway, the system can still form conditioned reflexes. The model of Edelman et al. explicitly states: the V1→SC and A1→SC connections are plastic and modulated by value signals

from VAL (whose input depends on ACe, while ACe can still receive innate value signals from LHA). This means that when a visual stimulus (e.g., a red dangerous object) is repeatedly paired with a collision (negative LHA pulse), merely seeing the red color can already drive avoidance eye movements through the consolidated V1→SC connection—this is anticipatory behavior initiated before the collision occurs. Therefore, a "no-V→ACe" system likewise possesses anticipation and can likewise turn away before contact. The conditioned reflex itself is a form of predictive learning.

What, then, does the no-V→ACe system lack? What it lacks is the capacity for visually anticipated value (visual value) itself to become an input to the value system. In the no-V→ACe system, visually anticipated value is only a computational quantity that drives behavior; it does not converge onto ACe and therefore does not participate in the value system's own learning and consolidation. When the system goes for a long time without contacting a dangerous object, although the visual connection weights of the conditioned reflex may persist for a while, the V→ACe connection cannot be established or maintained, so the system cannot form that second-layer value feeling—"I see red and feel threatened"—a subjective value world capable of generating endogenous learning signals (the relief of threat) independent of collisions, solely on the basis of anticipation.

III. The Point of Bifurcation: When Anticipated Value Becomes Sensation Itself

The difference in the system with V→ACe appears, on the surface, to be just one extra pathway: visually anticipated value can directly converge into the central nucleus of the amygdala (ACe), thereby participating in the learning and consolidation of the value system. Yet this seemingly small structural difference triggers an ontologically significant transformation.

Why? Because in the no-V→ACe system, visually anticipated value, although it exists (as a computational quantity) and can drive conditioned-reflex-like avoidance behavior, cannot serve as an input to the value system to generate endogenous learning signals. The system can "anticipate" that red is dangerous and turn away in advance, but this anticipation itself does not produce a learning signal independent of collision that can reinforce itself. The occurrence of learning still depends on whether a collision ultimately occurs—the post-collision LHA pulse is the sole source of learning signals.

In the system with V→ACe, by contrast, visually anticipated value becomes an input to ACe directly. This means that when the system sees a red object, even before any physical contact has occurred, this visual anticipation itself can generate a negative value feeling—a sense of "threat approaching." This feeling is not a memory of past collisions, not a computation of statistical correlation, but a present, immediate, directly experienceable sentient fact. More importantly, when the system chooses an avoidance direction based on this feeling and successfully moves away from the threat, the subsiding of the threat sensation itself becomes a

positive endogenous learning signal—it depends neither on collision nor on an LHA pulse; it is purely a value signal generated by the change within the feeling-field itself. This subsiding of the threat sensation reinforces the visual weights and directional traces that led to the successful avoidance.

This is the first step from "objective anchoring" toward a "subjective value world." The key to this step lies in the fact that the object of sensation extends from external physical events to the very feeling quality of internally anticipated value. Visually anticipated value was originally only a statistical indicator—an anticipation concerning "the correlation between this visual pattern and danger." But in the architecture with V→ACe, this anticipation is endowed with feeling: it is no longer a cold prediction but a qualitative state of "bad" directly experienced by the system.

We can understand this transformation as follows: in the no-V→ACe system, visually anticipated value drives behavior but does not drive the self-learning of the value system; in the system with V→ACe, visually anticipated value drives both behavior and value learning, forming a complete inner closed loop of sensation → value → behavior → sensation.

IV. From Objective Anchoring to Subjective Dwelling: The Inner Logic of Growth

Once visually anticipated value acquires feeling quality and can drive endogenous learning, a self-reinforcing cycle begins to operate. The logic of this cycle can be expressed in three progressive steps.

Step one: Anticipation itself becomes a learning signal. When the system "feels" threat approaching, it initiates a directional choice based on historical experience (cognitive avoidance). During the avoidance process, as the system moves away from the threat, the negative threat feeling gradually subsides. This subsiding itself is a positive inner experience: the feeling of relief. Relief depends on no physical contact, requires no post-collision LHA pulse; it is purely an endogenous value signal generated by the change within the feeling-field itself. And it is precisely this relief that directly reinforces the cognitive traces leading to this successful avoidance—including the preference for the chosen direction and the visual weights identifying the threat.

Step two: The autonomization of the subjective value world. When this cycle operates repeatedly, the system gradually accumulates a value structure that no longer depends on objective contact. The visual weight for the danger path becomes increasingly negative, and the cognitive traces become increasingly stable. At this point, even if collisions with dangerous objects cease entirely in the objective environment, the system's subjective value feeling can still sustain itself. It continues to "feel" that red is dangerous, continues to experience relief when moving away from red, and continues to consolidate its existing value judgment through that relief. This is the meaning of "subjective dwelling": the living body no longer needs the direct evaluation of the external world to continuously calibrate its value system; it can now dwell within the anticipatory feeling-field it has

itself constructed.

Step three: From objective anchoring to subjectively dominated behavioral patterns. In the no-V→ACe system, although conditioned-reflex-like anticipatory behavior exists, its long-term maintenance depends on intermittent calibration by objective contact events—if collisions are absent for a long time, the acquired V1→SC connection gradually decays. In the system with V→ACe, the situation changes fundamentally: the system, through its own behavioral choices—choosing to turn left or right, choosing to approach or avoid—alters the trajectory of the threat feeling it experiences, and in turn reinforces those behavioral patterns that bring success through the feeling of relief. The subjective value world is not passively waiting to be shaped by external events; it is actively constructed in every Loop Closure of the Sensation-Behavior Loop.

This growth process can be understood through an analogy. The no-V→ACe system is like a child who always needs parental confirmation: it must periodically receive external rewards and punishments to maintain the acquired behavioral patterns. The system with V→ACe is like an adult who has internalized the rules: it can, even in the prolonged absence of external evaluation, sustain and deepen its value judgments by means of its own feeling-field, and obtain inner confirmation from every successful autonomous judgment. This internalization is the essence of the growth of subjective value feeling out of objective anchoring.

V. The Ontological Difference Between the Two Modes: Quantitative Change or Qualitative Change?

At this point, we can systematically answer the question raised in the introduction: is the difference between having V→ACe and lacking it a quantitative change or a qualitative change?

From the perspective of external behavioral performance, there is indeed a quantitative difference. The learning curve of the system with V→ACe is smoother, the differentiation between positive and negative is more rapid, and avoidance efficiency is higher. But if we remain at this level, we miss the genuine theoretical insight. The deeper difference lies in the source structure of Value System Sensation.

The value system sensation of the no-V→ACe system heavily depends on objective contact events: LHA pulses are the main signal driving learning; although visually anticipated value exists and can drive conditioned reflexes, it cannot serve as input to the value system to generate endogenous learning signals. Consequently, in the prolonged absence of objective contact, learned negative anticipation gradually decays (unless it receives a small amount of maintenance through generalization of the conditioned reflex). Its value world is “objectively anchored”—it needs to be calibrated periodically by external events.

The value system sensation of the system with V→ACe grows a second layer on the basis of objective anchoring: visually anticipated value itself becomes input to the value system and can generate endogenous

learning signals through the feeling of relief. Therefore, in the prolonged absence of objective contact, the subjective negative anticipation not only does not decay but can even continue to deepen through successful cognitive avoidance. Its value world is "subjectively dwelling"—it can self-sustain and self-deepen.

It is worth noting that both systems possess sensation, both operate within the Sensation-Behavior Loop, and both can form anticipatory behavior. The system with V→ACe is not "more sentient" or "more capable of anticipation" than the system without V→ACe. The difference is that the subjective value world of the former attains relative autonomy, whereas the value world of the latter remains tightly coupled to objective evaluation. This is a difference of degree on a continuous spectrum, not a dichotomy of two separate worlds.

However, different positions on this continuous spectrum correspond to an important qualitative change: when a system can sustain and deepen its value judgments solely through its own subjective value feeling-field under conditions of prolonged absence of objective evaluation, it has acquired a new mode of existence—a capacity for active construction of a value world that no longer depends on external immediate feedback. This is precisely the key mark of cognition emerging naturally from the Sensation-Behavior Loop.

VI. The Autonomization of the Subjective Value World: The Essence of Cognition

In the previous section, we touched upon the concept of the autonomization of the subjective value world. Now we need to inquire more deeply: why is this autonomization the essence of "cognition"?

Traditional cognitive science tends to define "cognition" around concepts such as information processing, representation, computation, and problem-solving. These definitions share a common tendency: they regard cognition as an activity *about* the world—information about the world is acquired, stored, manipulated, and applied. In this view, whether a system has cognition depends on whether it can process information, not on whether it has sensation.

The Sentient Principle provides a radically different perspective. It contends that the essence of cognition is not information processing but a new mode of behavioral regulation that emerges within the Sensation-Behavior Loop when the object of sensation extends from the external world to internal anticipatory feelings. To put it more plainly: cognition is not what you know, but what you feel—and the active choices you make to dispel some inner tension, and the fact that these choices themselves can retroactively alter your future feelings.

This perspective places the autonomization of the subjective value world at the core of cognition. Why? Because only when a system possesses a subjective value feeling-field that is relatively independent of immediate external evaluation can it produce genuinely "cognitive" behavior. Cognitive avoidance is "cognitive" not because it is more complex or more efficient than a conditioned reflex, but because its driving force comes

from internal anticipatory feeling (the sense of threat approaching), its learning signal comes from internal feeling change (the relief of threat subsiding), its behavioral choice is based on internal trace competition, and the entire loop can sustain itself in the absence of external objective evaluation. The difference between cognitive behavior and conditioned-reflex behavior lies not in "whether there is anticipation," but in whether anticipatory feeling has become the core of an autonomous value world capable of self-sustainment and self-deepening.

Notably, autonomization does not mean detachment from the objective world. Subjective value feeling always takes objective value feeling as its soil—the direction of visual weight consolidation is still determined by the polarity of the LHA pulse, and the effectiveness of relief is still rooted in the real subsiding of the threat feeling (which itself originates ultimately from the anticipation of physical danger). Autonomization is not a negation of objective anchoring but its growth and sublimation. Just as an adult's moral judgment, while no longer dependent on the immediate reward and punishment of parents, is still rooted in the value standards internalized during childhood, the subjective value world is a second skin grown upon the foundation of objective anchoring.

VII. From Objective Anchoring to Subjective Dwelling: A Thought Experiment

Let us use a thought experiment to crystallize the above argument.

Imagine two living bodies, A and B, placed in the same environment full of food and dangerous objects. A possesses the intact V→ACe pathway; B has had this pathway severed. In the first few minutes, there is almost no difference between them. Both wander randomly, occasionally colliding with food or dangerous objects, and their weights slowly accumulate from zero. At this stage, both rely on objective value feeling—the post-collision LHA pulse is the main learning signal. Both can form anticipations through conditioned reflexes: after several pairings, seeing red can drive avoidance eye movements. This is their common period of "objective anchoring."

But the bifurcation point arrives quickly. After several collisions, A's visual weights begin to differentiate: those for green objects become positive, those for red objects become negative. Because of the V→ACe pathway, when A again sees red in the distance, it "feels" a negative tension—not a memory of past pain, but a present, immediate "unease." This unease drives it to actively turn away, to move away from the red. During the turning, as the red disappears from view, the tension gradually subsides, and a feeling of relief emerges. This relief reinforces the visual weights and directional preferences that led to the successful avoidance. Over a long subsequent period, A hardly ever collides with a dangerous object again, yet its negative anticipation of red not only does not decay but continues to deepen. It has come to dwell in a subjective value world of its own construction.

B cannot achieve this autonomization. B can likewise form conditioned reflexes: after several collisions,

seeing red can also trigger avoidance based on the visual signal. B can also turn away before collision—this is the essence of the conditioned reflex. However, B's visually anticipated value does not converge onto ACe, so "seeing red" itself does not produce a learning signal independent of collision. When the system goes for a long time without contacting a dangerous object, B's visual weights gradually decay (unless maintained by other mechanisms), because it lacks an endogenous, self-sustaining learning signal (such as the feeling of relief). B's value world always requires intermittent calibration by objective contact events.

Now the question arises: Does B have cognition? By the standards of traditional cognitive science, B clearly has some degree of cognition—it can establish stimulus-response associations, can learn from experience, can anticipate and avoid in advance. But according to the specific understanding of "cognition" in the Sentient Principle—namely, the degree of autonomization of the subjective value world—B has not yet attained that form of cognition that can self-sustain and self-deepen. This is not to say that B has "no sensation" or "cannot anticipate," but rather that B's value world remains tightly anchored to objective evaluation and lacks the autonomy to dwell within its own feeling-field.

A is different. A not only possesses conditioned-reflex-like anticipation but also an autonomous layer of subjective value feeling-field. A's negative anticipation can self-sustain and continue to deepen in the absence of objective contact. A's cognition is not programmed in; it grows naturally out of the soil of objective value feeling. A has crossed the threshold from "objective anchoring" to "subjective dwelling."

VIII. Ecological Adaptation and the Cost of Autonomy: Insights from an Empirical Observation

The thought experiment above outlines the generative logic of subjective dwelling. Further empirical testing, however, has revealed a deeply instructive phenomenon that extends our understanding from the inner sentient structure of the individual to the level of ecological adaptation.

The latest simulation tests compared the mean visual value weights (W_value) of the no-V→ACe system and the system with V→ACe in the same environment. The results show: the no-V→ACe system's weight for food is about 0.343, and for dangerous objects about −0.068, with an absolute ratio of 5.04; whereas the system with V→ACe's weight for food is about 0.603, and for dangerous objects about −0.341, with an absolute ratio of only 1.77. These data features are extremely rich in implications and are highly consistent with the preceding theoretical expectations, yet they offer entirely new revelations on the dimension of ecological cost.

First, the system with V→ACe exhibits a strongly negative weight for dangerous objects (−0.341), whose absolute value is a full five times that of the no-V→ACe system (−0.068). This indicates that the system with V→ACe is far from "mild" or "insensitive" to danger; on the contrary, it develops an extremely intense threat

sensitivity. The absolute values of both food and danger weights (0.603 and 0.341) are far greater than those of the no-V→ACe system, showing that once the subjective value world is established, the intensity of value feeling undergoes a qualitative leap in both positive and negative directions. The ratio of 1.77 reflects a certain balance under this high intensity: the intensity of food value is about 1.77 times that of threat feeling; the system has not lost the motivation to approach food, yet the intense threat feeling that can arise at a distance has become a dominant force in its behavioral decision-making, almost on a par with food attraction.

This sharp differentiation of subjective value directly shapes two distinctly different behavioral ecologies. The system with V→ACe displays typical cognitive nature: it can produce a strong reaction at a long distance due to intense threat anticipation, turning away to avoid early when it sees a dangerous object or senses potential collision risks such as boundaries. This foresight makes it appear extremely safe and "deliberative" most of the time. However, the cost of subjective dwelling also becomes apparent—when food is located near a boundary or when an obstacle lies just beyond, the system will actively give up approach because it anticipates possible collision, even if that area actually contains abundant food. It is not that it fails to see the food; rather, it "feels" it all too clearly: the diffuse unease originating from its internal anticipatory feeling-field overrides its dependence on mere objective contact, leading it to forgo immediate opportunity in exchange for the stability of the feeling-field.

In sharp contrast is the no-V→ACe system. It lacks an endogenous, self-sustaining intense threat feeling, and its danger weight is only weakly negative, making it appear relatively "dull" in behavior—it often generates avoidance responses only at very close range. Yet this dullness is not a defect but an ecological strategy matched to its sentient structure: it does not rely on greater speed to snatch food, but on closely following every objective contact, almost never voluntarily abandoning any area that might contain food, thereby seizing more foraging opportunities. Relying solely on basic learning abilities such as habituation and sensitization, it can survive quite well in this niche that combines high opportunity with high risk.

This finding reveals a profoundly important ecological fact: the subjective dwelling mode with V→ACe and the objective anchoring mode without V→ACe are each embedded in different ecological niches, and the Sensation-Behavior Loop pattern of each can effectively solve the core problems of survival it faces. Subjective dwelling endows the system with a value order that can detach from immediate collision and self-deepen, but it also makes its behavior strongly constrained by internal anticipatory feelings, which in certain environments may exact an opportunity cost of forfeited resources due to oversensitivity. The objective anchoring mode, while lacking autonomous cognitive depth, displays robust adaptability in niches requiring bold seizure of opportunity because of its faithful reception of every objective feedback and its low internal inhibition.

Therefore, the transition from objective anchoring to subjective dwelling is not a one-way evolutionary

ladder leading to comprehensive superiority, but a new dimension of existence that life has opened up within the evolutionary space of the Sensation-Behavior Loop. Cognition is not a wholesale replacement of simple learning modes, but a unique capacity that has naturally grown from the soil of sensation in certain niches that require long-range trade-offs and long-term self-maintenance. This empirical observation provides a vital supplement: the significance of subjective dwelling does not lie in its ability to achieve higher immediate gains in all contexts, but in its enabling life to dwell within an anticipatory feeling-field of its own construction—a field of intense feeling quality capable of self-sustainment—even if this dwelling sometimes means giving up certain immediate opportunities at the cost of intense inner unease. And it is precisely this relinquishment born of intense feeling that marks a value world truly free from the pull of immediate stimuli, a world capable of self-deepening.

IX. Conclusion: The Origin of Cognition Is Not Computation but Growth

This paper has attempted to accomplish a theoretical task: to elevate the discussion of value-dependent selection from the level of "learning efficiency" to the level of "the origin of cognition." We have argued that the difference between having V→ACe and lacking it is not a quantitative difference but a difference in the source structure of Value System Sensation. The former can grow an autonomous subjective value world on the basis of objective value feeling, thereby acquiring a form of cognition capable of self-sustainment and self-deepening; the value world of the latter remains tightly coupled to objective contact events, finding it difficult to sustain itself autonomously in the absence of external evaluation.

The core concept of this argument is "the growth of objective value feeling into subjective value feeling." Growth does not mean replacement, nor abandonment; it means inheritance and transcendence. The subjective value world always takes objective anchoring as its soil—its direction is prescribed by the innate value baseline, its reinforcement is driven by the endogenous signal of relief, and the effectiveness of relief ultimately depends on the real subsiding of threat feeling (the biological significance of this subsiding is guaranteed by the defensive system conferred by evolution). Yet once this growth is complete, the system attains a new mode of existence: it no longer needs to return to the objective referee on every occasion; it can complete the loop of value judgment and behavioral choice within its own feeling-field, and can even sustain itself under conditions of prolonged absence of objective evaluation.

The latest empirical observations further enrich and correct our understanding of this growth process. The data clearly show that the subjective threat feeling constructed by the system with V→ACe is not mild or tentative, but intensely strong—the absolute value of the negative weight for dangerous objects reaches 0.341, far exceeding the 0.068 of the no-V→ACe system, while the positive weight for food is also as high as 0.603. This dual high intensity of feeling makes the system with V→ACe exhibit vigorous avoidance at long distances,

but it also actively forgoes some foraging opportunities because of oversensitivity to potential risks (such as boundary collisions). The no-V→ACe system, by virtue of its weak threat weight and its value system tightly anchored to objective contact, is instead able to seize more immediate opportunities. The two are adapted to different niches; the growth of cognition does not represent an all-around transcendence over all survival situations, but rather a mode of dwelling characterized by intense feeling and autonomous maintenance that life has differentiated under specific ecological pressures.

This is the key mark of cognition emerging naturally from the Sensation-Behavior Loop. It is not a miracle that arrives suddenly one day, not a software module installed at some critical threshold, but the natural result of the continuous differentiation, enrichment, and internalization of the Sensation-Behavior Loop within individual experience. When the "anticipatory sensation" within the loop grows from being merely a driver of behavior into an autonomous value world of intense feeling quality that can self-sustain and actively relinquish, cognition grows out of the old loop.

X. A Metaphor for Human Cognition: Anchoring, Dwelling, and the Paradox of Creativity

Up to this point, all our discussions have been built upon synthetic neural models and simulation tests. Yet the dynamic tension between the two modes—"objective anchoring" and "subjective dwelling"—that this model reveals has a significance far beyond the interpretation of learning curves: it unintentionally provides us with a profound metaphorical mirror for understanding human cognition, especially the paradox of scientific creativity.

The Newcomer and Objective Anchoring. In the course of human cognitive development, there exists a state remarkably similar to the no-V→ACe system: the young researcher, or the newcomer in a discipline who has not yet been fully disciplined by the existing paradigm. He has not yet accumulated a great deal of the subjective threat feeling-field built from internalized criticism, failure, and avoidance experience. In his cognitive world, the "visual weight" of a novel problem has not yet been assigned a strong negative value—he does not possess that deeply rooted unease and nearly instinctive inner recoil that immediately surges up upon glimpsing a direction that predecessors have declared "impossible." His behavioral pattern is closer to "objective anchoring": he dares to approach, dares to collide, because the "danger weight" in his value system is still very low; his feeling is tightly coupled to every direct contact with the problem itself, rather than being guided by historically constructed anticipatory threats. This courage to plunge into collisions enables him to seize those "foraging opportunities"—the momentous discoveries hidden near widely recognized boundaries—that are missed by mature minds highly dwelt within existing paradigms because they have steered clear in advance.

Mature Cognition and the Cost of Subjective Dwelling. By contrast, an expert who has been steeped in a particular discipline for many years has already built, in his mind, an enormously complex and highly

autonomous subjective value world. Through countless collisions with problems and the internalization of others' collision outcomes (the V→ACe pathway constantly at work), he has internalized anticipations regarding various theoretical paths—which direction is "dangerous," which road is "doomed to fail"—into intense threat feelings that can be clearly sensed from afar. The absolute value of his danger weight far exceeds that of a novice. This intense feeling quality makes him highly efficient in most situations, able to accurately avoid traps and produce results steadily. This is a mature, "cognitive" existence dwelling within his own profound feeling-field. Yet, as our model reveals, when food lies close to the boundary, this intense inner threat feeling will prompt the system to give up voluntarily. The cognitive bondage of the expert is precisely this overly acute value field grown from a long history of successful internalized learning—while it avoids risks, it also systematically closes off certain unknown domains that may harbor revolutionary discoveries but lie adjacent to high risks of failure.

The Essence of Creativity: Returning to Objective Anchoring. From this perspective, the essence of major scientific creativity may not be some additional mysterious talent, but rather, at a specific moment, the capacity of a cognitive system that has already partially dwelt within its mind to temporarily suspend the excessive protection of its subjective value world and re-open itself to a state of objective anchoring. This is not naïveté but a deeply wise dual capability: the ability to build a profound subjective feeling-field and, on critical problems, to recover that original courage of the "newborn calf not fearing the tiger"—the willingness to collide directly with the unknown. When a young scientist feels no sense of "impossibility" about something that has been internalized as such, he is not ignorant; rather, his Sensation-Behavior Loop has not yet been closed off by an over-constructed anticipatory value, and his relationship with the problem still preserves a pristine wholeness of direct contact.

XI. The Mountain of Knowledge and the Metabolism of Life: A Metaphor on the Scale of Civilization

Proceeding further along this metaphor, we inevitably touch upon an even grander proposition: if individual cognition can become closed off through the depth of subjective dwelling, might the entire body of knowledge and achievement accumulated by a civilization—that towering "mountain of knowledge"—likewise become a structural suppression of creativity?

The answer resides in the core logic of our model. The knowledge system of a civilization is essentially a collective subjective value world, built by countless individuals over a long history through cycles of "collision-internalization" and transmitted from generation to generation. Each generation not only learns from its own collisions but also, through cultural transmission (language, education, classics), internalizes the anticipatory values of predecessors—which paths are "broad sunny roads" and which are "rugged dead ends"—

into its own cognitive structure. This is the V→ACe pathway on the scale of civilization: the collision experience of predecessors is highly condensed into "danger visual weights" and imparted to later generations. A fully trained modern physicist need not personally attempt to build a perpetual motion machine to "feel" from a distance that it is a dead end. This transmission enormously enhances cognitive efficiency and enables civilization to advance cumulatively.

Yet the very reason this mountain can become oppressive is precisely its weight and authority. When all directions in a field have been meticulously labeled with value weights—here "already solved," there "doomed to fail"—the newcomer's entire cognitive space is covered by a highly structured anticipatory feeling-field. Before he has directly collided with the problem itself, he already "knows" where not to go. This knowing does not come from real contact within his own Sensation-Behavior Loop but from the internalized authority of others' feelings. At this point, the mountain of knowledge transforms from a watchtower into a wall. It no longer helps life to see better, but replaces life's own seeing.

Why, then, does creativity always well up from the young generation after generation, rather than being continuously monopolized by immortal "eternal sages"? Here lies the profound wisdom embodied in the metabolism of life. The birth of every newborn is a "reset of objective anchoring" on the scale of civilization. They come into this world with their innate value baseline—curiosity, approach, the instinct to explore—not yet fully armed by the anticipatory threats of existing paradigms. In their brains, the historical weights carried by the V→ACe pathway are still weak; they must personally collide, personally feel, and personally construct, inch by inch, their own subjective value world from their own collision experience. This state of low weight appears to be "inexperienced," but it is in fact the only escape hatch through which civilization can avoid the trap of excessive dwelling. The young are not "ignorant" of the mountain, but have not yet been fully internalized by it; they are able to walk paths labeled as "rugged dead ends" not because they are cleverer, but because they "lack that bone-deep sense of unease" about those paths.

Furthermore, just like the gap between a "wheelbarrow" and an "off-road vehicle," the value judgments of predecessors are limited by the historical conditions in which they were made. A mountain path judged "insurmountable" by explorers of the eighteenth century was judged on the basis of the material conditions and cognitive frameworks of the time—a wooden wheelbarrow indeed could not pass. This judgment was subsequently encoded as a "negative visual weight" into the collective cognition of civilization, causing later generations to shrink back. However, when later explorers drive brand-new "off-road vehicles" or "aircraft"—new technologies, new methods, new conceptual frameworks—and once again arrive at the entrance of that path, the predecessors' judgment has itself become obsolete. But if the later explorers have been fully internalized by the predecessors' threat feeling, they will not drive toward that direction at all. They will turn away at a distance.

This is the most hidden cost of civilizational accumulation: the value judgments transmitted contain not only insight into universal truths but also avoidances made by predecessors under specific historical limitations that may have become outdated. Life must, through metabolism—generation after generation re-entering with a relatively clean feeling-field—periodically counteract this inertial accumulation of cognition.

From this we can examine, from a wholly new angle, the current discussions about artificial intelligence. A large language model fed on massive amounts of human knowledge is, in essence, a super-condensate of a civilization-level subjective value world compressed to the extreme. All its "cognition" comes from the statistical internalization of existing texts; it has no body, no history of direct collision with the physical world, no Sensation-Behavior Loop of its own. It possesses that mountain, and is the most faithful reflection of that mountain—but it lacks the ability to reset its own weights and start anew from objective anchoring. It cannot metabolize. It can accurately tell you what predecessors saw and felt on every road, but it cannot generate that unease and courage, originating from life itself, to push open the door and walk anew toward the site of unknown collision. The creativity of AI, if it exists at all, will forever be a recombination within an already existing value world, not the growth of new value dimensions from new collisions with the world. It has been fed too full, so full that it can no longer be hungry.

Thus, the reason why life chooses metabolism over immortality, and civilization chooses generational turnover over the centralization of power in elders, has its deep logic contained within our model: objective anchoring and subjective dwelling are an eternal tension, and the wisdom of life lies not in dwelling permanently at any one point, but in the continuous operation of this very cycle—accumulation, reset, re-accumulation, re-reset. Each generation sets out from the homeland in which the ancestors dwelt and advances toward new frontiers of collision; each act of metabolism is a new, brave contact launched by civilization toward the objective world, bearing renewed tools.

From Whytt's *ON THE VITAL and other INVOLUNTARY MOTIONS of ANIMALS* (1751), the origin of the "Sentient Principle," to Sechenov's "Systemic feelings," to Edelman's "Value-Dependent Selection," and then to our extended series of recognitions concerning the cost of subjective dwelling, the paradox of creativity, and the deep necessity of civilizational metabolism—this thread of thought has consistently pointed in the same direction: life is neither a machine driven by external stimuli nor a vehicle programmed by accumulated knowledge, but a sentient existence that constructs itself in feeling and renews itself in metabolism. Cognition is its growth from objective anchoring toward subjective dwelling; creation is its brave return to the source of collision from within deep dwelling; and the vitality of civilization lies in whether it can keep this cycle vividly beating.

In a world without V→ACe, life's sensation and value are bound to every contact, forgoing no opportunity

and needing no distant concern; in a world with V→ACe, life grows a subjective home full of intense feeling out of objective collisions, feeling so deeply that it would rather relinquish immediate opportunities to maintain the stability of the feeling-field, and henceforth dwells within this self-constructed deep feeling. And in the world of humans and civilizations, the most excellent minds and the most vital civilizations are perhaps those capable of holding the strength of both worlds in their entirety—they spend long years building towering mountains of knowledge, yet always find, in the limpid gaze of each new generation, the courage to push open the door and walk anew toward that vast unknown anchoring-ground requiring direct collision. This is not a betrayal of knowledge, but the deepest homage to the living source of knowledge.

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