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Gerd Leidig *

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Untying the World-Knot: Active Inference and the Pattern Theory of the Will in Schopenhauer

Gerd Leidig

Independent Researcher, Cologne, Germany; gerd.leidig@gmail.com

Abstract

Contemporary philosophy of mind is beginning to rehabilitate Arthur Schopenhauer as a proto-phenomenologist whose metaphysics of the will—once divested of its ontological commitments—provides thick descriptions of embodied agency, self-structure, and intersubjective resonance. This article validates this thesis through a four-stage naturalized reconstruction: (1) Schopenhauer's "world-knot" and the unity of body and will are interpreted as phenomenal facets of minimal self-models within the framework of the Free Energy Principle (Friston, 2010). (2) His fragmented theory of the self is situated within Gallagher's *Pattern Theory of Self* (2013). (3) His ethics of compassion is framed as a precursor to a *Pattern Theory of Compassion*. (4) Finally, affective criticality is employed to explain Schopenhauer's diagnosis of pessimism as a form of predictive dysregulation. Methodologically, the paper circumvents the pitfall of superficial analogies by adopting a *weak methodological naturalism*, utilizing cognitive models as a functional grammar for phenomenal material without reductively truncating the metaphysical deep structure.

Public Significance Statement

This manuscript offers an innovative synthesis of Arthur Schopenhauer's classical philosophy and contemporary cognitive science. By translating Schopenhauer's analysis of human suffering and compassion into the mathematical framework of the Free Energy Principle, it contributes significantly to the understanding of the neurobiological foundations of resilience and ethical conduct. Furthermore, the work demonstrates how philosophical concepts of "cultivating the will" can be translated into concrete clinical interventions and mindfulness-based therapies, providing a refined framework for understanding and treating chronic psychological distress as a form of predictive dysregulation.

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Introduction: The World-Knot and the Grammar of Naturalization

Arthur Schopenhauer is frequently cast as the dark solitaire of German philosophy, a vestige of an epoch that still hallucinated the will as a primordial metaphysical force. Yet, beneath this metaphysical-speculative terminology lies a phenomenological structural analysis of experience that is currently undergoing a remarkable renaissance. Schopenhauer described the so-called "world-knot" (*Weltknoten*)—the inextricable entanglement of subjective experience and objective corporeality—with a precision that largely anticipated modern debates on embodiment and 4E cognition (*embodied, embedded, extended, enactive*) (Schopenhauer, 1819/1988; Thompson, 2007).

Furthermore, Schopenhauer was the first major Western philosopher to seek, insofar as the sources of the time permitted, a profound connection to Asian wisdom traditions. He regularly consulted his edition of the *Oupnekhat*, the Latin translation of the Upanishads, recognizing in the teachings of *Prajnaparamita* ("the perfection of wisdom") the Eastern counterpart to his own thought.

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He viewed himself not as an inventor of truth, but as its Occidental translator, merging the metaphysical urge of the will with the Buddhist analysis of suffering existence.

When Schopenhauer claims that we recognize our body "in two entirely different ways"—once as representation from an external perspective and once as will from an internal perspective—he is not sketching a dualistic ontology, but rather a proto-phenomenology of agency. He views the subject as a bodily anchored being whose primary access to the world is mediated through urge, tension, and affective resonance. In this reading, the "will" is not an occult agent, but the immediately experienced dynamics of the enactment of life itself. The present inquiry takes up the challenge of making these insights fruitful for contemporary cognitive science. However, this requires a hermeneutic balancing act: bridging the gap between nineteenth-century speculative metaphysics and the mathematical rigor of modern theory-building—such as the Free Energy Principle (FEP; Friston, 2010)—without falling into the trap of superficial analogies.

To avoid this "category error," the present contribution follows an explicit weak methodological naturalism. We do not claim that the Schopenhauerian "will" is ontologically identical to "variational free energy." Such an equation would ignore the categorical difference between biophysical regularities and metaphysical postulates. Rather, we utilize cognitive frameworks as a functional grammar to establish a structural analogy. This approach understands cognitive ontologies not as static truths, but as dynamic tools for modeling experience (Hutto et al., 2017). In this context, we understand active inference as an enactive process in which perception and action are inseparably intertwined (Ramstead et al., 2020). The goal is to examine whether the dynamics that Schopenhauer describes phenomenologically—the incessant striving, the boundary of the individual, and the agony of lack—find a precise correspondence in the mechanisms of active inference and predictive processing.

To this end, we propose a four-stage reconstruction: first, we identify the phenomenal description (e.g., the body as agency); second, we perform a structural mapping onto the *Pattern Theory of Self* (Gallagher, 2013); third, we provide functional modeling within the framework of the Free Energy Principle; and finally, we culminate in an empirical concretization, for instance, via the concept of affective criticality (Tucker et al., 2025). This approach understands itself as a neuro-existential architecture, which takes Schopenhauer's radically realistic analysis of the human condition seriously without reducing it to mere neurology.

From Will to Embodied Subjectivity

"My Body and My Will are One": The Descriptive Core

Schopenhauer's identity thesis constitutes the heart of what is proposed here as a proto-phenomenology. In *The World as Will and Representation*, Schopenhauer argues that the knowing mind occupies an epistemologically privileged position relative to its own body. While all other objects in the world are given to the subject merely as "representation"—that is, as mediated, spatio-temporal appearances—one's own body serves as the sole object experienced simultaneously "from within." Schopenhauer identifies this immediate, non-hierarchical self-experience as "will," marking the juncture where the subject ceases to be a mere passive observer of an external world and instead emerges as the active center of its own life-enactment.

In this move, Schopenhauer undertakes the first historically significant philosophical attempt to escape the so-called Jacobi dilemma. Friedrich Heinrich Jacobi had criticized Kant, arguing that one could not enter the critical system without the presupposition of the "thing-in-itself," yet could not remain within it with that presupposition—since a causal effect of an unknowable thing-in-itself on our sensibility would illegitimately apply the categories, specifically causality, to the transcendent. Schopenhauer unties this Gordian knot of transcendental philosophy by identifying the thing-in-itself not as an external, unknowable cause, but as the internal essence of the subject, immediately given in self-consciousness. For him, the will is the key to the thing-in-itself; it no longer remains a mysterious 'X' but becomes recognizable as the immediately experienced urge of one's own body.

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This radical identification holds profound potential for overcoming Cartesian dualism. Had Schopenhauer not metaphysically charged the will as an all-encompassing, dark primordial force, but instead consistently framed it as the phenomenal interior of biological self-regulation, he might have achieved a complete naturalization of subjectivity as early as the nineteenth century. As it stands, a productive ontological tension persists: "The act of will and the action of the body are not two different, objectively recognized states linked by the bond of causality; they are one and the same, given in two entirely different ways" (Schopenhauer, 1819/1988, §18). When I raise my arm, for example, the internally experienced agency is phenomenally congruent with the physiological contraction. This insight anticipates the fundamental phenomenological distinction between the physical body (Körper) as an object of biomechanics and the living, sensing body (Leib) as the locus of ipseity and immediate world-relation—a distinction that proved foundational for Husserl and the subsequent tradition (Husserl, 1952). Schopenhauer thus bypasses the aporias of classical mind-body dualism by consistently conceiving the body as the "objectified" form of the will, a view in which matter represents merely the visibility of an internal urge.

In contemporary cognitive science, this idea finds a direct counterpart in the rejection of intellectualist models of hierarchical top-down causality, in which a central agent—an "inner commander"—sends commands to a passive motor apparatus. In these classical "command-and-control" models, action is often understood as the mere result of an abstract internal representation. In contrast, contemporary research views cognition, affect, and motor dynamics as an integral, indistinguishable process—a core postulate of motor intentionality (Merleau-Ponty, 1945). In this naturalized reading, the Schopenhauerian will is nothing other than the phenomenal deep structure of the Leib, which eludes detached, objective access precisely because it is what enables and transcendentally grounds that access through basal agency (Zahavi, 2004).

Pre-Reflective Self and Motor Intentionality

From this radical unity of body and will, Schopenhauer derives a theory of self-consciousness that describes a pre-reflective self-preceding all intellectual reflection. In contemporary phenomenology, this structure is identified as the "minimal self" or ipseity (Zahavi, 1999, 2014). It refers to the foundational "mineness" (*Für-mich-Haftigkeit*) inherent in every experience—a concept that resonates with Martin Heidegger's notion of *Jemeinigkeit* (often translated as "mineness" or "each-and-every-oneness"), which posits that existence is always irreducibly "mine." This is not a self-discovered through subsequent reflection upon the self, but rather the primitive, experiential quality that characterizes our being in the world. Schopenhauer recognizes with acute intuition that we constitute ourselves primarily through acting and suffering. Every sensation of resistance—such as pushing against a locked door or perceiving the weight of an object—discloses our own boundaries and thus our selfhood immediately in the mode of bodily enactment.

Today, this form of self-knowledge can be interpreted via the Free Energy Principle as the establishment of a minimal self-model based on the statistical separation between one's own actions and external environmental influences (Limanowski & Friston, 2013). The system learns to differentiate sensory consequences predicted by its own motor actions—such as the sensation of the hand on a surface during grasping—from unexpected external disturbances. In this sense, the brain functions as a "self-evidencing system," which permanently re-establishes its own existence through the minimization of prediction errors (Hohwy, 2016). The boundary of the self is therefore not a fixed anatomical shell but a statistical differentiation—the Markov blanket—which processes itself autopoietically through the constant exchange of action and perception.

In this view, the subject is not a disembodied "ghost in the machine," but an acting center whose relation to the world is primarily affective-motoric rather than merely representational (Gallagher & Zahavi, 2012). When Schopenhauer speaks of the "will," he phenomenologically describes precisely that energetic driving force biophysically necessary to maintain the organizational integrity of the organism against thermodynamic decay. The "world-knot" is thus not merely a theoretical paradox but the fundamental, lived condition of our existence: we are spatio-temporally situated beings

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whose internal drive—the incessant striving for homeostatic stability—is immediately reflected in every physiological fiber and act of will. Suffering, in this context, is not a psychological accident but the phenomenal expression of an irreconcilable prediction error at the boundary of this bodily agency.

Schopenhauer and the Pattern Theory of Self

The Pattern Theory of Self: A Brief Overview

To systematize Schopenhauer's frequently fragmented analyses of the subject—ranging from the immediate, pressing agonies of the *Leib* to the detached cool of the intellect—Shaun Gallagher's Pattern Theory of Self (PTS) provides an ideal framework. Gallagher conceives the self not as a static substance, but as a dynamic pattern of heterogeneous components (biological drives, cognitive models, narrative identity) that interact synergistically (Gallagher, 2000, 2013).

In recent developments, this pattern is understood not as a mere abstraction, but as a "Real Pattern" in the sense of Daniel Dennett (Gallagher et al., 2023). This implies that the self-pattern possesses objective reality because it holds indispensable explanatory power for the organism's behavior, without requiring the postulate of a metaphysical "self-substance." A "self" emerges when constitutive components—from basal homeostatic processes to complex social expectations—form a stable, self-sustaining web. In this sense, the self as an "organized whole" breaks the isolation of the individual and anchors it within a social and ecological matrix (Kyselo, 2014). Consequently, Schopenhauer's analysis of the subject acquires a modern, system-theoretic depth that reconceptualizes the individual as an open, interacting system whose boundaries remain fluid and context-dependent.

Mapping Schopenhauerian Concepts onto PTS and the Skandhas

Through a precise reconstruction, Schopenhauer's concepts can be mapped against the ten constitutive factors of the self-pattern (Gallagher et al., 2023) and the five Skandhas (Kandhas) of Buddhist psychology. Gallagher (2023) demonstrates that this ancient categorization of human experience provides a structural blueprint for a dynamic, processual theory of the self. Schopenhauer's division of the world into "Will" and "Representation" can thus be read as a functional reduction of these aggregates, which collectively generate the fictitious construct of a substantial ego:

- Rupa (Form/Body): Schopenhauer's "immediate objectivity of the will" corresponds to the material form and the physiological basis of the pattern. This encompasses the PTS factors of homeostasis and interoception. The will operates here as an elementary pattern of biological self-preservation on the lowest timescale. It is the "blind urge" manifested in autonomous processes like respiration or digestion, which Schopenhauer identified as the unconscious side of bodily organization.
- Vedana (Sensation/Feeling): This corresponds to affectivity as an energetic valence. Schopenhauer recognized that every experience is colored by the will's pendulum-like swing between distress (lack) and transient satiety. In the language of the FEP, Vedana serves as the phenomenal indicator for the direction of free energy: pain signals a dysbalance, while "pleasure" represents merely the brief, sub-critical pause before the next urge.
- Sanna (Perception/Recognition): This is the domain of representation (*Vorstellung*). The intellect transforms the blind urge into a recognized object. Functionally, this includes reflection and the spatio-temporal structuring of the world through the *principium individuationis*. Schopenhauer's representation is the cognitive mapping tool that allows the will to mirror itself in an environment, thereby enabling directed, teleological actions.
- Sankhara (Mental Formations/Volition): Here, the Schopenhauerian will manifests in its most active form—as a driving force and habitual pattern formation (habituality). It is the web of priors and deep-seated motivational tendencies that determine our actions unless flexibilized

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through insightful "re-signature." Sankhara represents the persistence of the will-pattern against change.

- Vinnana (Consciousness): The integrative moment that links the various aggregates into a seemingly stable ego-pattern. Gallagher (2023) emphasizes that this consciousness is not a container or a "soul," but the emergent result of the dynamic interaction of all other factors. It is the "self-evidencing" result of the functional coupling of body, affect, and cognition.

By conceiving Schopenhauer's ethics as a form of "pattern management," it becomes clear that the "denial of the will" corresponds to a deconstruction of identification with these aggregates. Suffering ends where the isolationist rigidity of the ego—the clinging to a fixed pattern (*Upadana*)—is abandoned in favor of a more comprehensive, empathic resonance or compassion. Schopenhauer's reading of the *Oupnekhat* was thus not a literary excursion, but a search for a phenomenal grammar for that state which the PTS describes today as the radical flexibilization of the self-pattern through the realization of the aggregate-like nature of our existence.

The Ethics of Compassion: From Will to Compassion

The Mystery of Compassion: Beyond the Principium Individuationis

Schopenhauer characterizes compassion as the "great mystery of ethics" (Schopenhauer, 1841/1988), for it ruptures the seemingly insurmountable barrier of egoism. Within the resonance of compassion, the partition between self and other—the *principium individuationis*—becomes phenomenally permeable. While space and time typically serve as isolating filters that confine the subject within an individual perspective, this distance collapses in the experience of profound compassion. The suffering of another is no longer processed as external data but is experienced as one's own disturbance. Schopenhauer interprets this as an intuition of the metaphysical unity of the will, expressed in the formula *Tat Tvam Asi* ("That art thou"), where the other is perceived not as a detached object but as another manifestation of the universal will.

From a functional perspective, he thus provides a thick description of what is currently debated as affective resonance (Gallagher, 2012). In moments of deep connectedness, the self-pattern expands to such an extent that information regarding the other's suffering is directly integrated into one's own motivational framework. Biophysically, this process can be understood within the framework of the Free Energy Principle as the transient softening or functional transparency of the Markov blanket. The suffering of the other is not merely registered cognitively; rather, it is processed as an immediate prediction error within one's own homeostatic model. This generates an urgent motivation for action to reduce the shared energetic tension—helping thus springs not from an intellectual duty but is the immediate realization of an extended agency. The "mystery" is thus revealed as the biophysical suspension of statistical demarcation in favor of dynamic intersubjective coupling.

Empathy versus Compassion: Neurobiological Validation

Schopenhauer's intuition gains further precision when viewed through the contemporary neuroscientific distinction between empathy and compassion (Singer & Klimecki, 2014). While pure empathy, as a form of affective mirroring through uncontrolled shared experience, often leads to "empathic distress"—a state in which the subject becomes egoistically overwhelmed by adopting the other's suffering, resulting in energetic depletion—compassion generates a fundamentally different neurobiological response. Compassion is characterized by a prosocial, caring attitude based on warm-hearted concern and the motivation to alleviate suffering without exhausting one's own resources (Gilbert, 2020).

Neuro-cognitively, Schopenhauer's Mitleid—functionally understood as compassion—represents a state of heightened resilience. Whereas empathic stress activates networks associated with pain and threat, such as the anterior insula and the anterior cingulate cortex (ACC), compassion mobilizes neuronal circuits related to reward and affiliation, including the ventral striatum and medial prefrontal cortex. Schopenhauer's insight that compassion temporarily suspends the blind,

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self-preserving urge of the individual will corresponds to the activation of networks that encode prosocial behavior as intrinsically rewarding (Gallagher et al., 2024). Within the framework of active inference, this implies a shift in statistical priorities: the high precision typically directed at demarcating one's own self-pattern is flexibilized in favor of an integrative global perspective. The system no longer processes the other's suffering as disruptive "noise" at the Markov blanket, but as a legitimate component of its own action matrix. Consequently, Schopenhauer's ethics emerges as a form of cognitive extension that elevates the subject from the sub-critical isolation of the ego into a metastable, intersubjective order.

Naturalizing the Will: Free Energy and Active Inference

The Free Energy Principle as a Formal Grammar of Self-Preservation

Karl Friston's Free Energy Principle (FEP) postulates that biological systems must minimize the "surprise" of their sensory states to preserve their organizational integrity (Friston, 2010). Within our functional analogy, Schopenhauer's "Will to Life" corresponds to this fundamental dynamic of self-assertion against entropy. The will is not a mere desire but a biophysical necessity to maintain a homeostatic boundary against an indifferent or hostile environment. What Schopenhauer describes as the "blind urge" finds its mathematical equivalent in the FEP through the minimization of variational free energy: the system must continually resolve prediction errors to statistically evidence its own existence (Hohwy, 2013).

This process occurs primarily through active inference. The system "wills" to survive by not only passively receiving data but by actively intervening in the world to confirm its internal expectations (priors) and reduce sensory ambiguities (Friston, 2011). Schopenhauer's famous diagnosis of life as an incessant striving reflects the fact that error minimization can never reach a standstill, as such a state would imply thermodynamic decay. However, this ceaseless dynamic entails a paradoxical risk: if free energy is minimized too efficiently, the "Dark-Room" problem arises. A system that has eliminated all surprise lapses into a state of sensory deprivation, offering no further informative cues for action. This provides a precise biophysical correlate to Schopenhauerian boredom, which he describes as the agony of a will lacking an object (Friston et al., 2012). Boredom thus compels new, often risky explorations to maintain the functional vitality of the model against the threat of sub-critical stagnation.

Markov Blankets and the principium Individuationis

The *principium individuationis*—identified by Schopenhauer as the constitutive unity of space and time and thus as the basal forms of intuition—is not a Schopenhauerian neologism but adopts a scholastic formula regarding the grounds for the individuation of general essences into concrete individuals. The naturalization of Schopenhauer radically transforms this metaphysical principle by conceiving it as a purely epistemological filter, assigning it a precise statistical correspondence in the modern concept of the Markov blanket. A Markov blanket defines a system's boundary by statistically shielding internal states from external influences (Friston, 2013). In Schopenhauer's conceptual world, space and time act as those necessary filters of our cognitive apparatus that differentiate the metaphysical unity of the will into a deceptive multiplicity of individual things.

From a biophysical standpoint, it is precisely this statistical isolation that enables individuality: we never perceive the world in its raw immediacy, but only through sensory projections at our Markov blanket—an information-theoretic equivalent to Schopenhauerian "appearance," which conceals the true essence of the world (the thing-in-itself) behind a constitutive filter. Yet this isolation is not a passive state of rest; it necessitates the individual's permanent striving to defend its organizational integrity against the entropic noise of the world. Every interaction with the environment influences internal order and requires flexible responses at the system boundaries. This struggle for informational stability, which Schopenhauer identified as the essence of individuation, requires constant energetic work to minimize prediction errors. The successful maintenance of the

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Markov blanket against external perturbations is thus the fundamental, energetic task of the Will to Life. In this view, the self is constituted not by a static substance but by the active assertion of this statistical boundary against the persistent tendency toward dissolution and entropic mixing with the environment. Without this energetic counter-effort, the individual as a demarcated entity would vanish into the "Veil of Maya" of general noise.

Spatio-temporal Dynamics: The "Common Currency"

Schopenhauer's forms of intuition (space and time) find a consistent naturalization in Georg Northoff's contemporary spatio-temporal neuroscience. Northoff postulates that time and space are not merely cognitive constructs but represent a "common currency" that bridges the gap between neural activity and mental experience (Northoff et al., 2020; Northoff, 2020). Here, the brain operates as a system that permanently synchronizes its internal dynamics—particularly resting-state fluctuations—with the spatio-temporal structure of the environment.

This process of world-brain alignment illustrates that space and time are not static containers but dynamic dimensions spanned by the intrinsic neural architecture. In a naturalized Schopenhauerian interpretation, the "will" is precisely that energetic force driving this spatio-temporal organization. A collapse of this dynamic inevitably leads to a disintegration of self-integrity. Thus, psychiatric disorders such as depression or mania can be understood as spatio-temporal psychopathologies: in depression, for instance, internal temporality slows relative to the world (desynchronization), while inner space constricts—a biophysical image of that rigidity of will and agony described phenomenologically by Schopenhauer (Stanghellini & Ballerini, 2010; Northoff, 2021). Space and time thus prove functionally to be the grammar through which the will enters into appearance; they are the structure in which statistical regularities are transformed into lived experience.

Affective Criticality: Pessimism as Predictive Dysregulation

Schopenhauer's radical pessimism can be modeled within a modern cognitive framework as an expression of disrupted affective criticality (Tucker et al., 2025). A healthy brain operates as a system far from thermodynamic equilibrium, ideally positioned exactly at the phase transition between rigid order and unpredictable chaos. This state of "criticality" enables maximum flexibility and efficiency in information processing. Schopenhauer's diagnosis of life as an incessant oscillation between "pain and boredom" phenomenally describes a fundamental dysbalance of this biophysical dynamic.

"Pain" corresponds to the state of an over-critical dynamic. Here, the system is confronted with high, irreconcilable prediction errors that permanently destabilize the internal model. Every striving of the will is broken by the world's resistance, leading neurobiologically to energetic overload and a pathologically high precision weighting on error signals. The world is experienced as a hostile, unpredictable chaos in which the self-model threatens to shatter. "Boredom," by contrast, marks the opposite extreme of a sub-critical stagnation. Here, information flow ceases; the system lapses into energetic underload, where no relevant prediction errors can be generated to stimulate active exploration. The will remains in a vacuum-like state without an object, which Schopenhauer described as equally agonizing as pain itself. Human suffering is therefore not an accidental defect but the structural expression of a system that has lost the ability for self-regulation at the critical point—a state of chronic predictive dysregulation (Leidig, 2025). In this reading, pessimism is not a mere worldview but the phenomenal signature of an organism whose generative models can no longer maintain the balance between dynamic adaptation and stable integrity.

The Denial of the Will: Asceticism as Cognitive Cultivation

The resignation described by Schopenhauer reveals itself here as a highly active neuro-cognitive act of re-signature. When free energy can no longer be minimized through action—perhaps because environmental resources are exhausted or physical decay is inexorable—the system is left only with

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the radical re-evaluation of its internal generative model. The system "re-signs" by reinterpreting formerly urgent world-signs (objects of willing) and abandoning the energetically costly expectations of the will. This is by no means an invitation to suicide—which Schopenhauer rejected as a strong affirmation of the will (Schopenhauer, 1819/1988, §69), since suicide is a violent act of active inference intended to change an unbearable state—but rather a conscious cultivation of the will, analogous to the Buddhist distinction between *tanha* (blind thirst) and *chanda* (wholesome striving for liberation).

Neuro-cognitively, this process can be understood as a fundamental shift in precision weighting (precision weighting). The system withdraws energetic priority from the automated impulses of self-preservation and enters a state of "inference without action." In this mode, sensory information is no longer processed as incentives for motor reactions but is left in its pure phenomenal givenness. As Urs App (2011) demonstrates in Schopenhauer's Compass, this re-signature serves as a navigational aid to reconfigure the internal model such that the Markov blanket becomes functionally transparent: the individual recognizes their pattern as part of a larger statistical order and breaks the energetic identification with the isolated system boundary. This cognitive cultivation enables a state of metastability in which the driving dynamic of willing gives way to a clear-sighted, contemplative calm—a naturalization of that freedom which Schopenhauer localized beyond the Principle of Sufficient Reason.

Synthesis and Implications

The Rehabilitated World-Knot

The present reconstruction has demonstrated that Schopenhauer's thought possesses a mechanistic density that anticipates contemporary frameworks such as the Free Energy Principle (FEP) and the Pattern Theory of Self (PTS) in a striking manner. In light of this synthesis, the "world-knot" (*Weltknoten*) emerges as the phenomenal expression of a dynamic metastability. Within the framework of the weak methodological naturalism pursued here, this implies that the subject is understood not as a static entity, but as a transient integration process of heterogeneous factors. We are predictive patterns operating within a permanent field of tension between the blind urge of basal self-preservation and the cognitive possibility of a clear-sighted re-signature.

At this juncture, a hermeneutic rectification is required: the frequent reduction of Schopenhauer to a purely life-denying pessimism proves, upon closer inspection, to be an interpretative short circuit. As the biophysical reconstruction suggests, Schopenhauer's denial of the will is by no means concerned with the eradication of existence, but rather with a fundamental transformation in how one engages with the will—a cultivation of life dynamics. This explains why his philosophy of art, particularly music, plays such a central, redemptive role, and why in his later work, Aphorisms on the Wisdom of Life (1851/1988), he composed an explicit guide to a flourishing existence. In our cognitive framework, this corresponds to the transition from a rigid, impulsive affirmation toward a flexible metastability that does not break the will but instead dissolves its informational rigidity.

Within this neuro-existential architecture (Leidig, 2025), suffering appears not as a systemic error, but as the necessary energetic tension at the boundary of our biophysical organization. It functions as the foundational drive to maintain the Markov blanket against thermodynamic decay. It is crucial to emphasize that these conclusions do not assert an ontological identity; rather, naturalization provides the functional syntax required to make Schopenhauer's phenomenal semantics legible for contemporary science. The world-knot is thus transformed from a metaphysical enigma into a modelable interface where the statistical structure of reality shifts into the immediate quality of lived experience.

Clinical Implications: From Agony to Cultivation

This perspective provides a robust foundation for modern clinical practice, particularly for modalities such as Acceptance and Commitment Therapy (ACT). Schopenhauer's concept of re-signature can be functionally interpreted as the radical acceptance of those prediction errors that can

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no longer be eliminated through external action or mere exertion of will. In ACT, this corresponds to the process of psychological flexibility: the individual abandons the energetically exhausting struggle against unpleasant sensations or thoughts—the "affirmation of the will" in its painful sense—and shifts cognitive precision toward value-driven action.

Empirically, this transformative process can be linked to the modulation of the Default Mode Network (DMN) (Singer et al., 2016). A hyperactive DMN is often associated with rumination, ego-fixation, and the Schopenhauerian "will-driven" state of deficiency. The cultivation of compassion and contemplation (mindfulness) has been shown to functionally deactivate these self-referential loops. Clinically, this implies that the conscious "softening" of the Markov blanket—the breaking through of the illusory separation between self and world—acts as a powerful resilience factor. Schopenhauer thus appears as a visionary architect of mental health, demonstrating that the reconfiguration of our generative models is the only sustainable escape from the tyranny of the will. Therapy becomes an applied proto-phenomenology that does not merely combat suffering but integrates it as an informational signal into a new order of freedom.

Conclusion

The naturalization of Arthur Schopenhauer anchors metaphysics within the biophysical foundation of life and translates it into a modern theory of active self-organization. In this framework, the "world-knot" emerges as the necessary interface between subjective agency and the statistical structure of reality—an informational point of contact where the energetic dynamics of the will encounter the filtering power of the Markov blanket. Schopenhauer's work thus provides a valuable compass for an age in which the boundaries of the self are becoming increasingly permeable. He teaches us that while we are embedded in predictive models, we remain the architects of that freedom which becomes possible through the act of consciously reinterpreting our world-signs and shifting cognitive priorities. This Schopenhauerian art of living points the way toward a flexible metastability that cultivates the will rather than merely denying it, conceiving of suffering as an energetic motor for a new, intersubjective order of freedom.

Declaration on the Use of Artificial Intelligence and AI-Assisted Technologies: In the preparation of this manuscript, the author utilized generative artificial intelligence and AI-assisted technologies to support the linguistic refinement, structural organization, and iterative editing of the philosophical and scientific arguments. Specifically, large language models were employed as sophisticated heuristics for cross-disciplinary synthesis and to ensure terminological consistency across the domains of 19th-century metaphysics and contemporary neuroscience. The author emphasizes that all conceptual core insights, the overall interpretative framework, and the final synthesis were developed through independent critical reasoning. The use of these technologies complies with the ethical guidelines for AI-assisted science and does not replace the primary intellectual authorship of the author.

Conflicts of Interest: There are no known conflicts of interest associated with this article.

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