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Article

Enactive Inference: From the Space of Reasons to the Dynamics of Life

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Abstract

This paper challenges the dominant representationalist paradigm in the philosophy of mind by developing a process-monistic, anti-representationalist account of cognition. It argues that the persistent mind-body problem is a consequence of a flawed substance ontology and the representationalist framework it necessitates. To overcome this, the paper constructs a critical synthesis of three influential anti-representationalist strands: Robert Brandom's linguistic inferentialism as a "top-down" approach, the embodied and enactive theory of mind as a "bottom-up" approach, and the Resonance-Inference Model (RIM) as a unifying scientific framework. Drawing on Schopenhauer's revolutionary turn to the lived body (*Leib*) as a non-representational access to reality, the paper traces a continuous path from basic biological normativity to the complex social normativity of human reason. By reinterpreting the Free Energy Principle (FEP) through an enactive lens ("enactive inference") and employing the concept of formal downward causation from synergetics, the RIM provides a scientifically grounded mechanism for mental causation without resorting to dualism or reductionism. The resulting framework offers an integrated, multi-scale description of the mind as an embodied, self-organizing process, with significant implications for understanding psychopathology and critiquing contemporary rationalist theories.

Keywords: anti-representationalism; enactive inference; process monism; normativity; downward causation

Public Significance Statement

This work challenges the common view of the mind as a computer that creates internal pictures of the world. It proposes a new framework that integrates insights from philosophy and neuroscience to understand the mind as an embodied, self-organizing process, not a static thing. This process-oriented perspective helps to dissolve long-standing philosophical puzzles about the mind-body relationship and offers a more holistic foundation for mental health research, suggesting that conditions like depression can be understood as rigid dynamic patterns of a whole person, rather than just isolated chemical imbalances in the brain.

The Anti-Representationalist Challenge

For decades, the philosophy of mind has been shaped by a paradigm so dominant that it often remains invisible: representationalism. In its core form, this view holds that the primary function of cognition is to create accurate internal models of a pre-given, external world. The mind is understood as a mirror of nature, and thinking as the manipulation of internal images.

However, this "spectator theory of knowledge" (Dewey, 1929) inevitably renews a form of Cartesian dualism: the gap between the representing inner realm of the mind and the represented outer world. This leads to seemingly unsolvable puzzles like the explanatory gap (Levine, 1983) and the "hard problem of content"—the question of how purely physical states can ever possess the normative properties of truth and falsehood that are constitutive of representations (Hutto & Myin, 2013).

In response to these aporias, a powerful counter-movement has formed, seeking not to reform representationalism but to overcome it at its root. This investigation is dedicated to the critical synthesis of three prominent strands of this turn. It traces a path from language, through life, to neurodynamics:

The starting point is Robert Brandom's inferentialism, a "top-down" critique that radically shifts the origin of meaning from the relationship between word and world to the social, normative practice of giving and asking for reasons (Brandom, 2017).

Responding to this is enactivism, a "bottom-up" critique from the perspective of life itself. Thinkers like Evan Thompson and Daniel D. Hutto reject the mind-world separation at its biological root: cognition is not a process in the head, but the dynamic, embodied coupling of an autonomous organism with its environment (Thompson, 2007; Varela et al., 2016).

Serving as a bridge between these two approaches is the Resonance-Inference Model (RIM). It offers a kind of "common currency" from the theory of complex systems to scientifically bridge the gap between the rational space of reasons and the basal dynamics of life (Leidig, 2025).

The central thesis is that this dialogue reveals the contours of a continuous, multi-scale description of the mind—from the basal normativity of a cell to the complex normativity of human reason, all without recourse to the problematic assumption of mental representations.

The Philosophical Dilemma: Nagel's Quest for a Psychophysical Monism

Before unfolding the alternative theories, the analysis of philosopher Thomas Nagel serves as a touchstone that plumbs the depth of the problem. Nagel argues that our thinking is shaped by a deep conceptual dualism: we intuitively distinguish between mental phenomena, defined by their subjective quality of experience ("what it is like"), and physical phenomena, which are objectively located in the space-time framework (Nagel, 1974). This chasm makes it unimaginable for us how a feeling like thirst can be identical to a neurophysiological state.

This conceptual dualism leads either to a metaphysical dualism (à la Descartes) with its unsolvable interaction problem, or to reductionist theories (like behaviorism) that, by definition, must exclude the irreducible subjectivity of consciousness and are therefore bound to fail.

Nagel's proposed solution is the postulation of a long-term theoretical ideal: a Psychophysical Monism. He hypothesizes that mental and neurophysiological properties are inseparable aspects of a single, deeper reality for which we still lack the concepts (Nagel, 2012). Although their connection seems contingent to us, he argues it is, in fact, necessary. Such a monistic state would be intrinsically both physical and mental and would preserve the causal efficacy of the mental. With this, Nagel formulates a demanding search profile for any future theory of mind: it must be monistic without being reductionist, and it must integrate the subjective with the objective perspective.

The Epistemological Critique: Willaschek's Transcendental Anti-Representationalism

While Nagel points out the metaphysical dead ends, Marcus Willaschek attacks representationalism from an epistemological angle. His critique targets the assumption that our mental access to the world is primarily mediated by internal representations. This, Willaschek argues, inevitably leads to an indirect access to the world and thus to the classic problem of skepticism: if our knowledge of the world is mediated by mental intermediaries, how can we be sure that they correspond to reality? Representationalism erects an insurmountable wall between us and the world.

Willaschek contrasts this model with a Kantian-oriented, transcendental approach (Willaschek, 2018). Objectivity and contact with the world are not established through depiction but are a structural condition for the possibility of knowledge itself. The structures of our mind are not a filter that separates us from the world, but the very lenses that make an objective world visible to us in the first place. Willaschek's critique thus provides another motivation to seek alternatives to

representationalism, showing that the problem is not only metaphysical but concerns our most fundamental relationship to the world.

Schopenhauer's Revolution: The Embodied Escape from Representation

Before exploring modern anti-representationalist currents, it is essential to look at their most important, though often overlooked, pioneer: Arthur Schopenhauer. Although he builds his system on the foundation of Kantian representationalism, he executes a decisive turn that makes his work the dialectical pivot of the entire debate. He diagnoses the “prison of representation” in its sharpest form, only to find the key to liberation in a radically new place: the lived body.

Schopenhauer inherits the problem from Kant in its pure form, intensified by Jacobi's famous dilemma: if causality, as one of our categories of understanding, is only applicable to appearances (phenomena), how can the “thing-in-itself” then “affect” our senses and thus be the cause of appearances? (Jacobi, 1787). With this question, Jacobi argued, the entire critique stands or falls. Schopenhauer's answer is revolutionary: he solves the problem by rejecting its premise. The relationship between the thing-in-itself—which he identifies as the one, blind, incessant Will—and the appearance is not causal. The world as representation is the “objectification” of the Will; it is how the Will appears under the forms of space, time, and causality (Schopenhauer, 1988). Representation and Will are not two causally linked worlds, but two sides of the same coin.

The stroke of genius lies in how we gain access to this Will. As long as we are purely contemplating subjects, we remain trapped in the prison of representation. But we are more than that. Schopenhauer recognizes that our own body is given to us in a twofold way: from the outside as an object among objects, as a Körper (body) in representation; and from the inside as immediately felt striving, willing, and acting, as Leib (lived body). This inner, first-person experience is for him not a representation of something, but the direct, unmediated manifestation of the Will itself (Schopenhauer, 1988). Every act of our will is immediately and inseparably an act of our lived body. In the Leib, he finds the “narrow gate to truth,” the only non-representational access to reality. With this turn, he anticipates the central motifs of phenomenology (Merleau-Ponty's “corps propre”) and enactivism. He shows that the way out of representationalism is not found through more thinking, but through a return to embodied existence. Furthermore, his metaphysics of a relentless, blind striving underlying all being provides a prophetic lens for modern neuroscience: the Free Energy Principle, which describes the organism as a system ceaselessly striving to maintain its own existence by minimizing surprise (Friston, 2010), appears like a scientific formalization of Schopenhauer's metaphysical Will.

The Architecture of Reason: Meaning as Inferential Practice

Robert Brandom's inferentialism constitutes one of the most systematic attacks on the representationalist tradition. His project is a fundamental reconceptualization of the relationship between mind, language, and the social world.

The Pragmatist Reversal: Inference before Representation

Brandom's fundamental move is to reverse the traditional semantic order of explanation. Instead of starting with representation, he begins with inference as the semantic primitive (Brandom, 2017). The meaning of an expression is determined not by what it depicts, but by its inferential role in the web of our practices. This role is defined by normative relations: what entitles one to apply a concept, what follows from its application, and with what is it incompatible? (Brandom, 2017). To know what “red” means, then, is not to match a mental color swatch with an external object. It is to master the practical consequences of its application: to know that asserting “This is red” entails the assertion “This is colored” and is incompatible with “This is green” (Brandom, 2000). Representation thus loses its status as the foundation of meaning and is relegated to a secondary, expressive role.

Representational vocabulary (like “true” or “refers to”) does not explain what meaning is; it is a tool for making commitments explicit (Brandom, 2000).

Normative Pragmatics: The Game of Giving and Asking for Reasons

The foundation of this semantics is Brandom’s normative pragmatics. To use language is to enter a “normative space” in which our utterances are evaluated as actions. The core of this practice is the “game of giving and asking for reasons.” This social interaction is structured by two fundamental normative roles—so-called deontic statuses: *commitment* and *entitlement* (Brandom, 2017). To make an assertion is to undertake a social commitment: one licenses others to re-assert it and to hold one accountable for it. One is now obliged to justify this assertion with reasons upon request. The ability to provide justification confers the entitlement to this commitment. Meaning is thus not forged in the isolated mind but arises exclusively in the public arena of mutual accountability.

Objectivity from Intersubjectivity

An obvious objection is the charge of relativism. Brandom’s subtle answer is that objectivity emerges as a structural feature of the intersubjective practice itself (Brandom, 2017). It arises from the perspectival asymmetry between the speaker who undertakes a commitment and the community that assesses it. What I am actually committed to is determined by public, inferential norms, which my interlocutor can potentially judge more correctly than I can (Brandom, 2000). By making a claim, I subject myself to an external, communal standard.

This analysis, however, reveals a crucial gap in Brandom’s theory. His pragmatism defines meaning through doing (Brandom, 2017). These doings are inevitably the actions of embodied agents. Yet Brandom’s analysis focuses almost exclusively on the abstract normative structure, neglecting its biological and phenomenological substrate. His project requires, without providing it, a theory of the embodied agent capable of entering the space of reasons—a theory that enactivism promises to deliver.

The Architecture of Life: Cognition as Embodied Sense-Making

Enactivism offers a radically different perspective. Instead of starting with high-level human linguistic competence, it begins with the most fundamental principles of life itself. It argues that cognition is not an abstract faculty but a profoundly biological phenomenon. Mind and life, in this view, are inextricably interwoven; the organizational principles that keep a cell alive are, in their most basic form, already cognitive principles. The focus shifts from the thinking subject to the living organism, whose primary task is not representing the world, but actively surviving in it.

Autopoiesis, Autonomy, and Sense-Making

The roots of enactivism lie in the concept of autopoiesis: the uninterrupted process by which a living system—from a single cell to a complex organism—continuously produces and maintains itself as a network of mutually dependent and regenerating processes (Maturana & Varela, 1980). Crucial is the operational closure of this network: the components generate each other and form a boundary (e.g., a cell membrane) that distinguishes the system from its environment while regulating exchange with it. From this self-constitution emerges the autonomy of the organism (Varela, 1979). It is not an externally instructed machine but an entity that actively maintains its own identity and goals.

This autonomy is the birthplace of a fundamental, intrinsic normativity. Unlike a rock, for which nothing is “good” or “bad,” the organism’s actions are guided by the existential imperative of self-preservation. A state is “good” if it promotes the maintenance of the autopoietic network; it is “bad” if it endangers it. This normativity is not objectively located in the world but arises from the perspective of the living system itself. In relation to this horizon of self-preservation, the world acquires meaning for the organism—it becomes food or danger, partner or predator. This process, by which an autonomous system actively structures its environment as meaningful, is called sense-

making (Varela et al., 2016). Cognition, in its most basic form, is therefore not the passive representation of an objective, pre-given world, but the continuous, active establishment and maintenance of a lived perspective from which the world makes sense at all. Meaning is not found, but brought forth.

Perception as Action

Building on these biological principles, enactivism, particularly in the version formulated by Alva Noë, executes a radical turn in the understanding of perception. It attacks the traditional view of perception as a passive, internal brain process. Against this “sandwich model” (input -> processing -> output), Noë posits that perception is not something that happens to us, but something we actively do (Noë, 2004). Perception is a form of embodied, exploratory activity. The perceptual content of our experience is generated not by a static neural snapshot but by the exercise of our practical knowledge of sensorimotor contingencies.

This knowledge is not propositional (“I know that...”) but an embodied skill: the practical understanding of how sensory input lawfully changes as a function of our own movements (Noë, 2004). Our perception of a tomato’s roundness is our implicit understanding that, if we move, the visual impressions will change in a predictable way. We experience a bottle as voluminous because our body implicitly knows what it is like to grasp it and view it from different sides. Perception is thus not an image in the head, but an ongoing, skillful interaction.

The radical consequence is that the world itself serves as its own best model. The richness of our visual experience does not need to be stored as a high-resolution representation in the brain. Instead, the world acts as an external memory, accessible on demand through our sensorimotor skills. This relieves the brain of the need to duplicate the world and shifts the locus of cognition to the dynamic loop between brain, body, and world.

Participatory Sense-Making

To bridge the gap to Brandom’s social world, Hanne de Jaegher and Ezequiel Di Paolo extend this concept to social encounters (de Jaegher & Di Paolo, 2007). Their theory of participatory sense-making shifts the focus from the individual to the interaction process itself. In the dynamic coupling of two agents, a new, autonomous dynamic can emerge that is not reducible to the individual participants. An improvised musical duet belongs to neither musician alone; it emerges in the space *between* them. Understanding, in this sense, is not an internal “mind-reading” but the ability to participate in this emergent dynamic. Meaning is created jointly.

Basic Cognition without Content

The most radical form of enactivism, advanced by Daniel D. Hutto and Erik Myin, sharpens the anti-representationalist critique: “basic cognition”—all non-linguistic cognitive processes—is entirely contentless (Hutto & Myin, 2013). They argue that the “hard problem of content” is unsolvable and arises only from the assumption of representations. They replace it with “ur-intentionality”: a direct, goal-oriented, yet contentless engagement with the world (Hutto & Myin, 2017). Genuine, truth-apt semantic content, according to Hutto and Myin, emerges only with participation in public, linguistic practices—precisely those that Brandom places at the center of his theory.

Thus, the complementarity of the approaches becomes manifest: radical enactivism clears the field of basic cognition from representations. On this field, inferentialism erects the edifice of conceptual, linguistic cognition. The question of their integration and neurobiological grounding becomes all the more pressing. It is at this juncture that the Resonance-Inference Model comes into play.

The Architecture of the Process: The Resonance-Inference Model

The preceding chapters have sketched the outlines of two powerful but separate anti-representationalist currents. The Resonance-Inference Model (RIM) now enters the scene to close the gap between them. It is an ambitious attempt to create a meta-theoretical, unifying framework that integrates insights from Predictive Processing, phenomenology, synergetics, and enactivism into a single coherent language (Leidig, 2025). The RIM aims to show that Brandom's 'space of reasons' and the 'dynamics of life' of enactivism are not separate realms but different descriptive scales of the same fundamental psycho-physical process.

Process Monistic Ontology: Dissolving the Ghost

The most fundamental step of the RIM is its break with substance ontology, which has framed the mind-body problem since Descartes. Instead of asking how two substances (*res extensa* and *res cogitans*) interact, the RIM asks what happens when we speak of mental and neuronal phenomena. The answer is that we are describing complementary levels of a single, self-organizing process of the brain-body-environment system. Drawing on Gilbert Ryle's critique of the "ghost in the machine" (Ryle, 2009) and supported by synergetics (Haken, 2012), the RIM conceptualizes the mind as a macroscopic order parameter: a global pattern that emerges from the interaction of microscopic processes, just as a vortex emerges from the movement of water molecules. This ontological reorientation dissolves the interaction problem by abandoning the substance-dualist premises that generate it.

Enactive Inference: The Synthesis of Predictive Processing and Enactivism

The scientific core of the RIM is the synthesis of Karl Friston's Free Energy Principle (FEP), often referred to as Predictive Processing (PP) (Friston, 2010), with enactivism. While PP is often read representationally—the brain as a machine comparing an internal world model to reality—the RIM performs a radical anti-representationalist reinterpretation.

The brain is understood as a deep hierarchical organization whose most abstract levels encode the system's fundamental axioms—the hyper-priors. These include not only structural assumptions (Kantian priors) but also our deepest beliefs and our self-model (Friston, 2010). Neurobiologically, this functional hierarchy corresponds to the hierarchical temporal structure of brain activity: the deepest hyper-priors correspond to the slowest, most powerful frequencies of neuronal dynamics (Northoff, 2014).

In the RIM's reinterpretation, the generative model is not understood as a world-picture in the head but is identified with the lived reality of the embodied self-pattern. Our deepest priors are not sentences but are inscribed in our posture, our affects, and the "affectively toned background music" of our spontaneous brain activity (Northoff, 2014). Under this reading, free energy minimization becomes the formal description of enactive sense-making. An organism minimizes prediction errors not only by adjusting its predictions (perceptual inference) but crucially through active inference: it acts on the world to make sensory input match its predictions. Inference is thus enactive: an active, world-generating doing aimed at maintaining one's form of existence, which avoids the charge of infallibility because its success is measured by viability in the world.

Mental Causation: Formal Downward Causation and Precision Weighting

The RIM offers a non-reductionist model of mental causation through the concept of formal downward causation (Haken, 2012). Once a stable macroscopic pattern—a belief—is established as an order parameter, it "enslaves" the behavior of the subordinate neuronal processes. The mechanism for this is precision weighting: a high-precision belief leads to contradictory sensory data being dismissed as low-precision "noise." This corresponds to the deployment of attention (Friston, 2010). Downward causation is thus an informational causation: the global state (the mind) sets the boundary

conditions by modulating the precision of the signals involved (Leidig, 2025). The philosophical gain is immense: the model preserves the causal efficacy of the mental without relapsing into dualism.

The “Rosetta Stone”: The Anatomy of a Depressive Episode

The strength of the RIM lies in its ability to integrate multiple perspectives as complementary descriptions of a single process. It shifts the debate from the unsolvable mind-body problem to the empirically tractable world-brain problem (Northoff, 2014). The intrinsic spatio-temporal dynamics of neural activity become the “common currency” linking neural and mental phenomena. The following table translates the phenomenon of depression into the six “languages” of the model (adapted from Leidig, 2025).

Psychological Construct	Friston (Formal)	Gallagher (Phenomenological)	Haken (Dynamic)	Ciampi (Energetic)	Grawe (Motivational)	Northoff (Neurophysiological)
Psychopathology	Faulty inference (rigid priors, false precision weighting).	A rigid, dysfunctional pattern of “sense-making.”	A stable, maladaptive attractor.	A state of critically high emotional tension.	A state of chronic inconsistency (violated basic needs).	A disturbance of intrinsic spatio-temporal brain dynamics.

Formally (Friston, 2010), depression is faulty inference with rigid, negative *priors*. Phenomenologically (Gallagher, 2005), it is a frozen pattern of sense-making. Dynamically (Haken, 2012), it is a stable, maladaptive attractor. Energetically (Ciampi, 1988), it is a state of blocked emotional tension. Motivationally (Grawe, 2004), it is a state of chronic inconsistency. Neurophysiologically (Northoff, 2014), this rigidity manifests as a disturbance of spatio-temporal brain dynamics: the strong hyper-priors reduce the system’s dynamic repertoire, which is reflected in measurable changes in neural complexity (e.g., in the power-law exponent, indicating the disturbed balance between slow and fast brainwaves). All descriptions refer to the same indivisible psycho-physical process.

Critical Synthesis: A Unified Anti-Representationalist Fabric

The crucial task now is to weave these threads into a coherent whole and to demonstrate the integrative power of the proposed framework.

Common Foundations

The foundation of the synthesis is a shared commitment to three core principles: pragmatism, which prioritizes doing over seeing; process-orientation, which prioritizes dynamic processes over static substances; and a fundamental anti-representationalism, which rejects the idea of the mind as a mirror of the world.

Overcoming Friction Points: The RIM as a Bridge-Builder

Such a synthesis might seem too harmonious. A critical reader could name two points of friction: first, the gap between Brandom’s abstract “space of reasons” and the embodiment of enactivism.

Second, the vast “scaling problem”: the leap from the contentless basic cognition (Hutto & Myin, 2013) to the content-rich discursive practice (Brandom, 2017). It is precisely here that the RIM proves to be an indispensable bridge-builder.

Against the first objection, it offers the concept of formal downward causation. An abstract social norm is modeled in the RIM as a macroscopic order parameter. This global state is the form that “enslaves” the local neural and bodily processes. The abstract norm thus becomes causally effective by being the form of the embodied dynamics itself (Haken, 2012; Leidig, 2025).

The RIM solves the “scaling problem” by showing that it is not a qualitative leap but a scaling of the same process: enactive inference. Brandom’s “game of reasons,” from this perspective, is a culturally evolved form of collective enactive inference, in which we jointly minimize prediction errors about the commitments of others in a co-constituted normative space (Leidig, 2025).

A Continuous Path of Normativity

Perhaps the most important achievement of the synthesis is the naturalization of normativity without reduction. The RIM makes it possible to draw a continuous, multi-level path on which more complex forms of normativity emerge from simpler ones:

- *Level 1 (Biological)*: At the base lies the normativity of life—the drive for self-preservation rooted in autopoiesis (Varela et al., 2016). In the RIM, this corresponds to the most fundamental prior: the prediction to remain viable (Friston, 2010). Failure at this norm means not falsehood, but disintegration.
- *Level 2 (Interactional)*: Through the dynamic coupling of agents, interactional norms emerge (de Jaegher & Di Paolo, 2007). The implicit “norm” here is the maintenance of the interaction’s coherence. A violation leads to “breakdown” and the generation of surprise (free energy).
- *Level 3 (Socio-Linguistic)*: At this highest level, Brandom’s explicit, deontic norms are instituted. A social rule (“One should not lie”) is a culturally established hyper-prior that functions as an order parameter, constraining the space of what counts as an appropriate claim through formal downward causation. Here, normativity becomes a matter of truth and justification.

A Neuro-Pragmatic Foundation for Inferentialism

The ultimate fruit of this integration is the translation of Brandom’s normative pragmatics into a concrete, embodied mechanism. The ‘space of reasons’ is anchored in the dynamics of lived life.

A commitment can be modeled as the establishment of a stable, macroscopic order parameter—a deep attractor state in the brain-body system. This commitment functions as a high-precision hyper-prior that “enslaves” subsequent cognitive processes through formal downward causation.

An entitlement to this commitment corresponds to the stability of this individual order parameter within the larger network of the community. To be entitled means that one’s own cognitive state can resonate with those of others without generating massive interpersonal prediction errors. Brandom’s ‘space of reasons’ thus becomes an emergent property of the dynamics of coupled, error-minimizing organisms.

Confronting the New Rationalism

The strength of this process-monistic framework is most evident in its direct confrontation with its philosophical antithesis: a resurgent, non-naturalist rationalism, as manifested in the work of thinkers like Dietmar Hübner (2024), Derek Parfit (2017), and T.M. Scanlon (2014). These positions arise from a concern about losing the normative authority of reasons in a purely naturalist worldview (Leidig, 2025).

The argument of this new rationalism begins with the axiom that reasons are irreducible, non-natural entities (Scanlon, 2014) and situates them in a “mild Platonism” (Hübner, 2024). The inescapable consequence is that a representationalist bridge is needed for these non-causal reasons to become effective in the causal world. Representationalism thus becomes the logical consequence of an initial ontological choice.

The process-monistic approach of the RIM offers a superior resolution. It diagnoses Platonism as a category mistake that falsely ontologizes a functional distinction (justification vs. causation). It replaces the representationalist bridge with enactive inference: reasons are not depicted but are instantiated as the deepest priors in the embodied self-pattern. The genealogy of normativity outlined in 8.3 also removes the motivation for Platonism by showing how the “ought” can emerge from the “is” without being reduced to it. Finally, the RIM even explains the intuitive appeal of dualism itself: it is rooted in the functional polarity of the brain’s control systems (Leidig, 2025).

Stress-Testing the Model: Objections and Replies

A theoretical model proves its strength through its resilience to critical objections.

The Panpsychism Objection: A Question of Complexity

The first objection targets the universality of the free energy principle. If every self-preserving system can be described as an “inference machine,” where does the RIM draw the line against panpsychism? The RIM’s reply is clear: it does not confuse the universal, formal principle of inference with the specific, biological phenomenon of conscious experience. Consciousness is an emergent property of a process with a certain organizational complexity. The decisive factor is the hierarchical depth of the generative model (Leidig, 2025). Conscious experience requires a generative model deep enough to make inferences about its own inferences (metacognition) and to posit a coherent self-model as a hypothesis. It is this recursive, self-referential dynamic that simple systems lack.

The Falsifiability Problem: From Meta-Theory to Measurable Hypothesis

The second objection concerns the seemingly all-encompassing explanatory power of the RIM. Is it an unfalsifiable “theory of everything”? This objection confuses a meta-theoretical framework with an empirical hypothesis. Like the theory of evolution, the RIM is a generative framework. Its strength lies in its fertility to generate specific, measurable, and thus falsifiable hypotheses across different descriptive levels. Falsifiability lies in the postulated bridge principles: for example, the model predicts that a successful psychotherapeutic intervention (phenomenological level) *must* measurably correlate with an increase in the complexity of neural dynamics (neurophysiological level). If such correlations were systematically absent, the model would be refuted. The RIM is thus not a dogma but a progressive research program.

The Reductionism Objection: The Irreducibility of Perspectives

The third objection asks whether translating lived experience into the language of “free energy” is not itself a subtle form of reductionism. This objection overlooks the core of multi-perspective monism. The RIM asserts *no* ontological priority of the formal or neurophysiological level of description. The phenomenological description is an irreducible and constitutive perspective on the process. The goal is not reduction, but integration: to build coherent bridges showing *how* a change at one level lawfully relates to a change at others. Scientific progress lies in discovering this connecting “grammar” between perspectives.

Conclusion: Toward an Integrated, Embodied, and Normative Science of Mind

The analysis of the convergence of inferentialism, enactivism, and the Resonance-Inference Model has revealed the contours of a powerful, unified paradigm for the philosophy of mind and the cognitive sciences. The strength of this synthesis manifests in several decisive achievements: it bridges the gap between the natural sciences and the humanities, naturalizes normativity without reducing it, provides a non-reductionist model of mental causation, and resolves central aporias of representationalism and the new rationalism. The proposed framework answers the challenges formulated by Nagel and Willaschek by offering a monism that neither reduces subjectivity nor relapses into a sterile dualism. The implications are far-reaching—for artificial intelligence,

psychotherapy, and social theory. Ultimately, this integrated vision replaces the fruitless question “How do mind and brain interact?” with a more productive one: “What are the complementary descriptions of the self-organizing dynamics of the brain-body-environment system?”. This question is already monistic in nature. It leaves us not with a final answer, but with an open research program and that quiet inkling which Arthur Schopenhauer (1988) placed as a motto at the beginning of his main work, “The World as Will and Representation,” with a line from a poem by Goethe: “Whether Nature may not finally be fathomed?”

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