

# **The Operator That Cannot Place Itself:**

## **Jacobi's Problem, Nested Ontologies, and the Case for Ontological Monism**

### **Abstract**

Friedrich Heinrich Jacobi's 1787 objection to Kant's transcendental idealism identified a structural problem that remains unresolved in the tradition of nested ontological frameworks: any system that posits causal relations between distinct ontological levels requires an operator to mediate those relations, but this operator cannot itself be ontologically located without generating an infinite regress. We argue that this problem is not peripheral to Kant's system but constitutive of it, and that its modern descendants, including layered ontologies of mind and body, hierarchical emergence theories, and multi-level realist frameworks, inherit the same defect. We further argue that the problem dissolves, rather than is solved, once the assumption generating it is abandoned: the assumption that ontological levels are real strata rather than epistemic modes of access to a single physical reality. Drawing on the perspectival entity ontology and dimensional logic developed in prior work (Stegemann 2026a, 2026b, 2026c), we show that replacing causal inter-level operators with reflexive epistemic operators eliminates the regress, preserves scientific realism, and reframes classical puzzles, including the Hard Problem of Consciousness and the measurement problem in quantum mechanics, as dimensional category errors rather than metaphysical mysteries.

Keywords: Jacobi problem, nested ontologies, ontological monism, semantic pluralism, dimensional logic, causal operators, epistemic frames, Hard Problem of Consciousness

## **1. Introduction: The Open Wound**

In 1787, Friedrich Heinrich Jacobi published his *David Hume on Faith* and formulated an objection to Kant's transcendental idealism that has never been satisfactorily answered. The passage is worth citing precisely:

*"Without that presupposition [of things-in-themselves] I cannot enter the system, with it I cannot remain within it."*

The presupposition Jacobi had in mind was Kant's claim that things-in-themselves causally affect our sensory apparatus, producing the raw material of intuition that the understanding then orders according to its categories. The problem is that causality, on Kant's own account, is a pure concept of the understanding applicable only within the domain of appearances. To invoke causality as the relation between the thing-in-itself and the sensory manifold is to apply

a category precisely where Kant has declared it inapplicable. The system requires a causal relation it cannot contain.

This is not a minor inconsistency that a more careful formulation could repair. It is a structural flaw that runs through the foundation. Kant's architecture demands a mediating operator between two ontological regions, things-in-themselves and appearances, but no such operator can be consistently specified, because any operator connecting ontological levels must itself be ontologically located, and this location either falls within one of the levels (in which case it cannot mediate between them) or it falls outside both (in which case a further level is required to locate it).

The German Idealists recognized this problem clearly. Fichte eliminated things-in-themselves and derived the non-ego from the ego's own activity. Hegel dissolved the distinction between appearance and reality into the self-movement of the Concept. Both solutions are ambitious, but both purchase their coherence at the cost of the very realism Kant wanted to secure. If the thing-in-itself is absorbed into the subject's constitutive activity, we are left with a form of idealism that cannot explain why experience resists our wishes, why the world pushes back.

The problem has not disappeared. It has migrated. Contemporary philosophy of mind regularly posits mental and physical levels connected by relations of supervenience, emergence, or realization, and faces precisely Jacobi's question in a new register: what is the nature of the operator connecting the levels, and where is it located? Neurophilosophy posits neural correlates of consciousness without explaining how neural firing patterns give rise to subjective experience, a question that David Chalmers formalized as the Hard Problem and that has resisted every proposed solution for three decades. Ontologies of biological emergence posit levels of organization, physical, chemical, cellular, systemic, connected by emergence relations that are either causal (and then face Jacobi's regress) or merely descriptive (and then do no ontological work).

This paper argues that the correct response to Jacobi's problem is not to find a better operator but to abandon the assumption that makes an operator necessary: the assumption that ontological levels are real strata of the world rather than epistemic modes of access to a single physical reality. Once this assumption is relinquished, the regress dissolves. What remains is a framework we call ontological monism with semantic pluralism: one ontological level, multiple legitimate and irreducible descriptive registers. The dimensional logic developed in prior work (Stegemann 2026a, 2026b, 2026c) provides the formal structure for this pluralism.

The paper proceeds as follows. Section 2 reconstructs Jacobi's problem in its original form and identifies its structural core. Section 3 examines three major attempts to resolve the problem, Hegel, Husserl, and Günther, and argues that each preserves the defect in modified form. Section 4 presents the proposed dissolution through ontological monism and semantic pluralism. Section 5 shows how this framework reframes the Hard Problem of Consciousness and the measurement problem as dimensional category errors. Section 6 addresses objections. Section 7 demonstrates that the distinction between ontology and epistemology is itself dimension-relative, and that ontological monism must be understood as a reflexively qualified epistemic posit rather than an absolute metaphysical thesis. Section 8 shows that the resulting

circularity is not a defect but the appropriate form of a framework that seeks to capture the circularity of living organization.

## 2. Jacobi's Problem: The Structural Core

Kant's transcendental idealism rests on a strict distinction between two domains. Appearances (*Erscheinungen*) are objects as they are constituted by the forms of our sensibility (space and time) and the pure concepts of the understanding (the categories, including causality). Things-in-themselves (*Dinge an sich*) are whatever exists independently of our cognitive contribution, they are the transcendent ground of appearances, but as such, they are in principle unknowable, because to know something is precisely to apply our cognitive forms to it, and the thing-in-itself is defined as what lies beyond those forms.

The structural problem is this. Kant's system requires that things-in-themselves affect our sensory receptivity, producing the sensory manifold that the understanding then organizes. This affection relation is the hinge of the system: without it, appearances would be mere hallucination with no contact with a mind-independent world; with it, Kant can claim that appearances, while cognitively constituted, are nonetheless appearances of something real. But the affection relation is a causal relation, and causality is, on Kant's own account, a pure concept of the understanding that applies only to appearances. The thing-in-itself cannot causally affect us, because causality is restricted to the phenomenal domain.

Jacobi's point is therefore not merely that Kant is inconsistent. It is that the inconsistency is load-bearing: remove the causal affection relation and the system loses its contact with reality; retain it and the system violates its own most fundamental principle.

We can formalize this as follows. Let  $O_1$  be the domain of things-in-themselves and  $O_2$  be the domain of appearances. Kant's system requires a relation  $R(O_1, O_2)$ , affection, that connects the two domains. For  $R$  to be a genuine relation and not merely a notational convenience, it must be specified: what kind of relation is it? The only available answer is causal, but causality belongs to  $O_2$  and cannot be coherently applied to  $O_1$ . Any attempt to invoke a non-causal relation faces the same problem: the relation must be located somewhere, and its location generates a new level  $O_3$  that requires a further relation  $R'(O_1 \cup O_2, O_3)$ , and so on.

This is the regress. It is not a consequence of Kant's particular formulation but of any architecture that posits distinct ontological levels connected by cross-level operators. The operator cannot place itself.

## 3. Three Failed Escapes

### 3.1 Hegel: Dissolving the Distinction

Hegel's response to Jacobi's problem is the most radical: eliminate the thing-in-itself by showing that the distinction between appearance and reality is itself a determination of the Concept. For Hegel, the Kantian opposition between the phenomenal and the noumenal is an abstract, one-sided determination that the dialectic of the Concept overcomes. Reality is not

what lies behind appearances; it is the totality of the process by which the Concept externalizes itself and returns to itself through its determinations.

This move has genuine power. By eliminating the thing-in-itself, Hegel removes the operator problem: there are no cross-level relations because there is ultimately only one level, the self-movement of the Absolute. But the price is the loss of realism. If appearances are determinations of the Concept, the world's resistance to our wishes, the hard facticity of physical reality, must be explained as a moment of the Concept's self-externalization. This is either idealism or a metaphor whose unpacking never arrives. Hegel's system is internally consistent in a way Kant's is not, but it achieves this consistency by absorbing the world into thought, which is not a solution to the problem of how thought contacts a mind-independent world but a dissolution of the question.

### **3.2 Husserl: Bracketing the Ontology**

Husserl's phenomenological reduction (*epoché*) takes a different approach: rather than resolving the question of things-in-themselves, it brackets it. The phenomenologist suspends the natural attitude's commitment to an independently existing world and focuses on the structure of experience as such. This move is methodologically powerful and has generated an extraordinarily rich descriptive program. But as an answer to Jacobi's problem, it is a deferral rather than a solution. The question of how experience relates to a mind-independent reality is not answered by the *epoché*; it is set aside.

When Husserl later attempts to restore the natural world through the concept of the *Lebenswelt*, the cross-level operator problem returns: how does the constituted world of phenomenological analysis relate to the pre-given world of everyday life, and what kind of relation connects them? The answer Husserl gives, that the *Lebenswelt* is itself a layer of constitution, generates precisely the nested structure that reproduces Jacobi's problem at a new level.

### **3.3 Günther: Multiplying the Levels**

Gotthard Günther's poly-contextural logic represents perhaps the most sophisticated modern attempt to handle the problems generated by multi-level thinking. Günther recognized that classical two-valued logic is inadequate for describing systems that refer to themselves, and that the traditional ontological framework, with its single logic and single reality, cannot capture the genuine plurality of perspectives that living and thinking systems exhibit. His response was to multiply logical contexts (*Kontexturen*), each internally two-valued but related to others through trans-junctions, relations that mark the boundaries between contexts without reducing one to another.

Günther's system is formally impressive and internally consistent. But it does not resolve Jacobi's problem; it multiplies it. Each trans-junction between contexts is precisely the cross-level operator that the problem identifies: a relation connecting distinct logical domains that cannot itself be located within any of them without generating a further level. Günther acknowledges that the morphogrammatic structures underlying his system resist formalization in any standard sense, they cannot be given determinate semantic values, and this

acknowledgment is effectively a concession that the operators remain without ontological grounding.

The deeper problem with Günther's approach is that it is syntactic without being semantic. It describes the formal structure of multi-level interaction without explaining what the levels are, whether they are ontological strata of reality, epistemic modes of access, or something else entirely. This unclarity is not a technical gap that further formalization could fill; it is the sign of an unresolved foundational question.

#### **4. The Dissolution: Ontological Monism and Semantic Pluralism**

The three failed escapes share a common assumption: that the levels in question are ontological strata, distinct regions of reality that must be connected by real relations. Fichte, Hegel, and Husserl modify or eliminate the strata while retaining the idea that ontology itself has a layered structure. Günther multiplies the layers while acknowledging that the connecting operators resist specification. None of them questions the assumption that generates the problem.

Our proposal is to question it directly.

The core claim is this: what are called ontological levels are not strata of reality but epistemic modes of access to a single physical reality. The world has one ontological level. What varies is not what exists but how existing things are described, accessed, and engaged by different kinds of entities and different descriptive frameworks.

This position, ontological monism with semantic pluralism, has several immediate consequences.

First, the cross-level operator problem dissolves. If there is only one ontological level, there are no cross-level relations to specify. What we call the relation between mind and body, or between the neural and the phenomenal, or between the micro-physical and the macro-physical, is not a relation between ontological strata but a relation between descriptive registers. The operator connecting them is not causal but reflexive: it marks the transition between modes of description, not between modes of being.

Second, the irreducibility of different descriptive registers is preserved. Semantic pluralism does not mean that all descriptions are equivalent or interchangeable. The first-person description of pain, what it is like to be in pain, is not translatable without remainder into a third-person description of nociceptive signaling. Not because they refer to different ontological levels, but because they are different epistemic modes of access to the same physical process, and these modes are constitutively asymmetric: no amount of third-person information can generate first-person access, and no first-person report can substitute for third-person measurement. The asymmetry is epistemological, not ontological.

Third, Jacobi's objection is disarmed. Kant needed things-in-themselves because he assumed that the world as it is in itself must be ontologically distinct from the world as it appears to us. Once this assumption is dropped, the thing-in-itself becomes what it always should have been: not a distinct ontological region but a limiting concept marking the boundary of our epistemic access. It does not need to cause anything, because it is not a separate entity that produces

appearances. It is the same reality that appears, considered under the description that marks our cognitive limits.

## **4.1 Perspectival Entity Ontology**

The positive framework we propose builds on the perspectival entity ontology developed in Stegemann (2026b). The core thesis is that every entity constitutes a world-for-it through its own properties and relations. A photon has a world-for-it, the electromagnetic, gravitational, and quantum-statistical fields with which it stands in relation. A neural system has a world-for-it, the sensory, motor, and representational structures through which it engages its environment. These are not poor copies of a deeper arrangement; they are genuine ontological unfoldings of different entity perspectives.

This is not panpsychism. The world-for-the-photon contains no experience, no proto-qualia, no inner illumination. It is a purely structural-relational constitutive achievement: the photon is what it is in relation to the fields with which it interacts. Extending ontological constitution to non-living entities is not a generalization of consciousness to all matter; it is the consistent refusal to grant subjective experience the status of an ontological base category.

The consequence for Jacobi's problem is direct. There is no single world-for-all waiting behind the worlds-for-each. Reality is not diminished by this move; it is multiplied. The photonic world is real. The neural world is real. Neither is the appearance of a more "genuine" world that lies behind both. The regress that Jacobi identified cannot get started, because there is nothing behind the appearances to require a connecting operator.

## **4.2 Dimensional Logic as the Formal Structure of Semantic Pluralism**

If ontological monism dissolves the regress, semantic pluralism requires a formal structure that can represent the multiplicity of legitimate descriptive registers without collapsing them into each other or ranking them hierarchically. This is the function of dimensional logic (Stegemann 2026a, 2026c).

Dimensional logic distinguishes four epistemic dimensions:

D1, the dimension of immediate phenomenal experience: what pain feels like, what red looks like, the first-person register that resists complete propositional capture.

D2, the dimension of systematic, intersubjectively accessible description: neural firing rates, functional roles, third-person predicates, mathematical formalism.

D3, the dimension of reflexive meta-cognition: thinking about thinking, mutual modeling of perspectives, the comparative contextualization of descriptive systems within larger frameworks.

D4, the dimension of contextual-paradigmatic embedding: the historical, cultural, and institutional situatedness of all epistemic processes, the explicit acknowledgment of the standpoint from which description proceeds.

The dimensions are not ontological strata. They are epistemic modes, qualitatively distinct ways in which a knowing subject accesses the same physical reality. The operators connecting

them are reflexive, not causal: they mark transitions between modes of description without implying that the modes refer to different regions of the world.

This is where the formal contrast with nested ontologies becomes precise. A nested ontology assigns a causal operator to the relation between its levels: the higher level supervenes on, emerges from, or is realized by the lower level through a relation that has ontological weight. Dimensional logic assigns a reflexive operator to the transition between its dimensions: D1 and D2 are not causally connected but dimensionally distinct, they are two ways of accessing the same physical process, and the operator marking the transition is the acknowledgment that a change of epistemic mode has occurred.

The practical consequence of this distinction is visible in the treatment of category errors. Classical category errors, applying mental predicates to physical objects, or vice versa, are, from the perspective of dimensional logic, dimension violations: the unreflective transfer of concepts from one epistemic register to another without formally marking the transition. Such violations do not produce falsehoods so much as pseudo-questions, questions that appear to require answers but dissolve once the dimensional shift is made explicit.

### ***4.3 Kant's Transcendental Philosophy as a D3 Analysis Without D4***

The dimensional framework allows a precise diagnosis of where Kant's transcendental philosophy succeeds and where it goes wrong, more precise, we argue, than any internal critique conducted within Kant's own vocabulary.

Kant's transcendental philosophy operates at D3. It does not describe the world directly (D2), nor does it merely register immediate experience (D1). It asks a reflexive meta-cognitive question: what are the conditions of the possibility of experience as such? This is exactly the move that defines D3, thinking about the structure of thinking, stepping back from first-order description to examine the epistemic framework within which description operates. In this sense, Kant's Copernican turn is a genuine D3 achievement: it identifies the contribution of the knowing subject to the structure of experience and makes this contribution explicit.

But Kant commits a systematic D4 error. He treats his D3 analysis as yielding universal and necessary results valid for all rational beings, independently of any historical, cultural, or biological situatedness. He operates at D3 without recognizing D4, without acknowledging that his own reflexive analysis is itself conducted from a specific standpoint: that of an eighteenth-century European philosopher whose conception of rational subjectivity is shaped by a particular intellectual tradition, a particular language, and a particular cognitive architecture. He mistakes his species-specific, culturally situated epistemic structure for the structure of reason as such.

This is the precise dimensional diagnosis: Kant discovered D3 and treated it as D4-independent. Dimensional logic shows that every D3 analysis itself operates within a D4 frame, that there is no reflection without a standpoint, no meta-cognition that is not itself situated. A D3 analysis that does not carry its own D4 context as an explicit formal element is not more objective for the omission; it is less honest. It presents a situated analysis as an unsituated one.

The consequence for the thing-in-itself is direct and important. The thing-in-itself is the residue of a D3 analysis that does not acknowledge its own D4 conditions. A knowing subject that does not specify its standpoint must postulate a standpoint-independent reality to guarantee the objectivity of its knowledge, and this postulated standpoint-independent reality is precisely the thing-in-itself. It is not a discovery about the world; it is an artifact of an incomplete reflexive analysis. Once D4 is incorporated, once the situatedness of the knowing subject is made a formal element of the analysis rather than a tacit background assumption, the thing-in-itself becomes superfluous. Objectivity no longer requires a standpoint-independent world behind the appearances; it requires only the explicit acknowledgment of the standpoint from which appearances are constituted.

This is why dimensional logic does not merely add a fourth dimension to Kant's framework. It reveals that the framework was always already four-dimensional, and that Kant's failure to make the fourth dimension explicit is precisely what generated the structural problem Jacobi identified.

#### ***4.4 Classical Logic as a D2 Operation Claiming D4 Universality***

The diagnostic we applied to Kant's transcendental philosophy extends to classical binary logic itself, and the extension is not merely analogical but structural.

Classical binary logic operates at D2. It describes formal relations between propositions, truth, falsity, entailment, contradiction, in a systematic, intersubjectively accessible, third-person register. This is precisely what D2 is: the dimension of formal, replicable, standpoint-independent description. Within its domain, binary logic is not only legitimate but indispensable.

The problem arises when binary logic presents itself as universally valid, as the logic of thought as such, applicable across all domains, all contexts, and all epistemic situations. This is a D4 claim: the claim that the framework holds independently of any historical, cultural, or cognitive situatedness. But binary logic does not carry its own D4 conditions as a formal element. It does not specify the domain within which its rules apply, the epistemic standpoint from which its axioms are adopted, or the constitutive assumptions that make its two-valued structure seem natural. It presents a D2 operation as if it were a D4 universal, and this is the same error Kant committed at the level of transcendental philosophy.

This diagnosis explains why the classical alternatives to binary logic, multi-valued logics, fuzzy logic, paraconsistent logic, and Günther's poly-contextural logic, all fail to resolve the problems they target. Each attempts to solve the problem within D2: by adding truth values, by introducing degrees, by multiplying contexts. But the problem does not lie in the internal structure of D2; it lies in the unexamined claim to D4 universality. Expanding the machinery of D2 leaves this claim intact and therefore leaves the problem intact.

Dimensional logic does not extend classical logic in this sense. It situates it. Binary logic is the appropriate formal tool for D2 operations, for systematic description, mathematical proof, and scientific modeling. It is not appropriate as a universal framework for all epistemic operations, because D1, D3, and D4 involve constitutive features, phenomenal immediacy, reflexive self-reference, contextual situatedness, that cannot be captured within a two-valued formal system

without distortion. The classical logical paradoxes, the Liar, the Sorites, Russell's paradox, are not failures of binary logic within its domain; they are dimension violations: the application of D2 tools to problems that are inherently multi-dimensional.

In this sense, dimensional logic is not a competitor to classical logic but its epistemological completion: it specifies the domain within which binary logic is valid, acknowledges the standpoint from which it operates, and provides a formal framework for the transitions between epistemic registers that classical logic cannot see because it does not acknowledge that it occupies one.

## **5. Two Case Studies: The Hard Problem and Quantum Measurement**

### **5.1 The Hard Problem of Consciousness**

David Chalmers' Hard Problem asks why and how physical processes in the brain give rise to subjective experience. Why is there something it is like to see red, rather than merely the processing of photons of wavelength 700nm? The "easy problems", explaining cognitive functions, behavioral responses, attentional mechanisms, are in principle solvable by neuroscience. The Hard Problem is hard because functional explanation seems to leave the subjective character of experience untouched.

From the perspective of ontological monism and dimensional logic, the Hard Problem is a dimensional category error of the following form: it assumes that D1 (phenomenal experience) and D2 (neural processes) occupy the same descriptive level, such that a causal or identity relation between them can be coherently formulated. The question "how does neural activity give rise to experience?" presupposes that "giving rise to" is a coherent relation between the two registers, that there is an operator connecting them that can be specified in the terms of either register.

But D1 and D2 are not on the same level. They are different epistemic modes of access to the same physical process. The redness of red and the 700nm electromagnetic wave are not two entities that need to be connected; they are the same physical reality accessed through different constitutive modes, phenomenal and systematic-descriptive respectively. There is no causal gap between them because there is no ontological gap; the apparent gap is generated by the illicit assumption that the two descriptions must be reconcilable within a single descriptive register.

This does not mean that the phenomenal character of experience is explained by neuroscience. It means that the demand for such explanation rests on a confusion about what kind of relation is at stake. Neuroscience explains the physical structure of the process; phenomenology describes its first-person character. Neither explanation is incomplete in itself; the appearance of incompleteness is generated by the assumption that both must ultimately be expressible in the same terms. Once this assumption is removed, once the reflexive operator replaces the causal one, the Hard Problem does not receive an answer. It receives something better: a demonstration that it is not the kind of question that has an answer, because it is not a genuine question but a dimension violation.

## 5.2 The Measurement Problem in Quantum Mechanics

The measurement problem asks how definite outcomes emerge from quantum superpositions when a measurement is performed. The Schrödinger equation describes the deterministic evolution of quantum states; measurement appears to involve a discontinuous "collapse" that the equation does not predict. The role of the observer in producing collapse has generated an extraordinary range of interpretations, Copenhagen, many-worlds, hidden variables, relational quantum mechanics, QBism, none of which has achieved consensus.

From the perspective of dimensional logic, the measurement problem has a precise diagnostic. The Schrödinger equation is formulated within D2: it is a systematic-mathematical description of quantum state evolution, operating entirely within the third-person register of formal physics. The act of measurement involves an irreducible shift to D1: the outcome is an event in the experience of an observer, a definite fact registered in the first-person register of an agent's interaction with the world.

The "collapse" is not a physical process that needs to be added to the Schrödinger equation; it is the dimensional transition from D2 to D1, from the systematic description of potentialities to the phenomenal registration of an actuality. This transition cannot be described within D2 alone, because D2 describes the evolution of the wave function, not the occurrence of experience. But neither does it require a mysterious non-physical process: it requires only the acknowledgment that measurement involves a change of epistemic register, and that this change is not itself a physical event but a constitutive feature of how physical reality is accessed by observing entities.

This analysis converges with QBism in its insistence that quantum states are not mind-independent elements of reality but tools for agents to organize their expectations about outcomes. Where dimensional logic extends beyond QBism is in providing a systematic account of why the agent's epistemic mode matters, not because agents create reality, but because different epistemic modes constitute different aspects of the same reality, and the transition between them marks a genuine discontinuity in the mode of access rather than in the mode of being.

## 6. Objections and Replies

### 6.1 Is this just another form of idealism?

The most immediate objection is that ontological monism, by denying the reality of cross-level relations, collapses into a form of idealism in which the world is whatever our descriptions make it. This objection misreads the position. Ontological monism asserts that there is one ontological level, the physical world, and that what varies is epistemic access, not ontological structure. The physical world is not constituted by our descriptions; it pushes back against our wishes and resists our expectations. What our descriptions constitute is not the world but our access to the world, and different constitutive modes generate different but equally real aspects of the same world.

The perspectival entity ontology makes this explicit by extending perspectival constitution to non-human and non-living entities. A photon's world-for-it is not a human construction; it is the real relational structure of the photon's interactions with its environment. Extending perspectival constitution universally prevents the slide into anthropocentric idealism that threatens frameworks that restrict constitution to human subjects.

## **6.2 Does semantic pluralism not simply defer the problem?**

A second objection holds that semantic pluralism merely restates the problem at the level of descriptions: if D1 and D2 descriptions are irreducible to each other, we still need an account of how they relate to the same physical reality, and this account will require a cross-level operator of some kind.

The reply is that the reflexive operator differs structurally from the causal operator in a way that blocks the regress. A causal operator between levels  $O_1$  and  $O_2$  requires ontological location: it must belong to one of the levels or to a further level  $O_3$ . A reflexive operator between dimensions D1 and D2 requires no such location: it is the act of acknowledging a change of epistemic mode, and this acknowledgment is itself a D3 operation, a meta-cognitive registration of a dimensional transition. The reflexive operator is thus self-locating in a way the causal operator cannot be: it belongs to D3 by virtue of being a reflexive operation, and D3 is defined as the dimension of reflexive meta-cognition. No further level is generated.

## **6.3 What about causal relations within the physical world?**

A third objection notes that the physical world contains genuine causal relations, between neurons, between particles, between biological processes, and asks whether ontological monism can accommodate these without reintroducing cross-level operators.

Causal relations within the physical world are not cross-level relations in the relevant sense. They connect entities at the same ontological level, the level of physical reality, and they are fully describable within D2. The problem Jacobi identified concerns causal relations between ontological levels, not causal relations within a single level. Ontological monism has no difficulty with physical causation; it is precisely the framework within which physical causation is at home.

## **7. Ontology and Epistemology as Dimension-Relative Ascriptions**

The preceding analysis has shown that nested ontologies, from Kant's transcendental architecture to contemporary structural realism, consistently commit the error of hypostatizing epistemic instruments into ontological strata. What remains to be shown is that this is not a contingent failure of particular philosophical programs, but a structural feature that dimensional logic makes systematically visible: ontology and epistemology are not absolute categories but dimension-relative ascriptions. What functions as ontology on a given dimensional level becomes recognizable as epistemology from the next higher level.

At D1, there is something like an implicit ontology of immediate encounter. What is, is encountered without distance, without model, without reflection. At this level, no distinction

between ontology and epistemology can be drawn, because there is no vantage point from which such a distinction could be made. D1 is, strictly speaking, pre-ontological, not because it falls short of ontology, but because the question of being cannot yet be posed.

At D2, a relational ontology emerges: entities are determined through distinction, comparison, and relation. What something is follows from what it differs from. From the vantage point of D3, however, this relational determination reveals itself as an epistemic operation. D2 treats its relations as ontologically constitutive; D3 recognizes that the positing of relations is itself already a particular mode of access.

D3 establishes model-based ontologies, systematic frameworks about what there is and how it is structured. Integrated Information Theory, the Free Energy Principle, and structural realism all operate at this level. They formulate explicit ontological claims: there is integrated information, there is prediction error minimization, there are structures as the ultimately real. From the vantage point of D4, however, these ontologies become visible as epistemologies, as modes of modeling that mistake their own posits for givens. Structural realism hypostatizes relations, IIT hypostatizes integrated information, the FEP hypostatizes a mathematical principle. In each case, an epistemic instrument is conflated with the matter itself. This is precisely the mechanism diagnosed in the preceding sections as the core pathology of nested ontologies, now revealed as a general dimensional phenomenon rather than an isolated error.

D4 recognizes this pattern and applies it to itself. D4 cannot establish its own ontology without simultaneously knowing that this ontology, too, would be epistemically constituted. This is the core of what has been termed reflexive relativism: every ontology appears as epistemology from the next higher dimension, and D4 is the dimension that folds this principle into itself.

This has direct consequences for the status of ontological monism as defended in this paper. Ontological monism is not an exception to the dimensional rule but its sharpest expression. It is itself an epistemic posit, a D3 instrument required in order to articulate what the entire movement of dimensional logic points toward. It does not describe from an Archimedean point how reality is ultimately constituted. It is the best available conceptual approximation of something that resists full articulation. The term is needed in order to state: there are no layered ontologies, no mind and matter as two substances, no structures above entities. But the stating itself remains perspectively constituted.

This distinguishes the position defended here from what is discussed as monism in analytic metaphysics, whether in Schaffer's priority monism or Horgan and Potrč's austere realism. In those frameworks, monism is advanced as an ontological thesis, as a direct claim about what there ultimately is. Here, it is a reflexively qualified posit that carries its own instrumental character with it. Ontological monism is the name that D4 gives to what it cannot name without simultaneously missing it as something named, but the name is needed, because silence is not a philosophical option when one must argue against dualisms and layered ontologies.

This yields a precise characterization of the relationship between ontological monism and semantic pluralism. Semantic pluralism is the multiplicity of dimension-relative ontologies. Each dimension has its own way of articulating what is, and none of these ways is false, they are perspectively valid at their respective level. Ontological monism names the non-

dimensional ground to which all these perspectives are referred without ever being able to fully recover it. Together, they constitute the dual structure of the framework: the insight that everything is a perspectival articulation, and the insight that there is something that is articulated, without that something ever being accessible independently of articulation.

## **8. The Circularity of Dimensional Logic and the Structure of the Living**

At this point, an objection suggests itself: the entire construction is circular. Ontology becomes epistemology, ontological monism is itself an epistemic posit, and the analysis that demonstrates this is in turn perspectivally constituted. This is correct, and it is necessarily so. The circularity is not a defect of the framework but its appropriate form. For the same circularity is the fundamental structure of all living organization.

An autocatalytic system is essentially circular: it produces the conditions of its own production, it achieves operational closure without causally decoupling from its environment. What Maturana and Varela described as autopoiesis, what Rosen formalized as (M,R)-systems, what Kauffman modeled as autocatalytic sets, these are all descriptions of a productive circularity that cannot be reduced to linear causality.

Dimensional logic does not merely represent this structure, it enacts it. When D4 recognizes that its own discourse is epistemically constituted, it folds back into itself, just as an autocatalytic network acts back upon itself. This is not a regress but closure, operational closure in the systems-theoretic sense, which is simultaneously the condition for an interior space to arise at all. Consciousness, according to the causal collapse model, emerges where causal factorizability breaks down and a non-factorizable interior space comes into being. The circularity of dimensional logic is the epistemic counterpart of this ontic closure: just as the living distinguishes itself from mere chemistry through autocatalytic circularity, so reflexive thought distinguishes itself from mere model-building through dimensional circularity.

This connection to Jacobi's original challenge is worth making explicit. Jacobi accused Fichte's Wissenschaftslehre of a vicious circularity: the I that posits itself cannot ground itself without presupposing what it seeks to establish. From the perspective developed here, Jacobi was right about the circularity but wrong about its valence. The circularity he identified is not a logical defect but the signature of a system that has achieved operational closure, the very closure that makes self-awareness possible. Jacobi, operating with the resources of classical binary logic (a D2 operation, as argued above), could only read circularity as failure. Dimensional logic reveals it as the structural condition of reflexive selfhood.

A framework that seeks to capture the circularity of the living must itself be circularly constituted, otherwise it would miss its subject matter by imposing a linear structure that does not correspond to it. Dimensional logic is circular because the reality it seeks to grasp is circularly organized. And ontological monism, which carries its own instrumental character with it, is the conceptual form in which this circularity articulates itself without dissolving it.

## 9. Conclusion

Jacobi's problem has survived two and a half centuries because it identifies something structurally inevitable about any framework that posits distinct ontological levels connected by cross-level operators. The operator cannot place itself: to specify it requires a further level, and the regress cannot be halted by any finite ontological architecture.

The three major responses to the problem, Hegel's dialectical dissolution, Husserl's phenomenological bracketing, and Günther's poly-contextural multiplication, each fail to dissolve the regress because each preserves, in modified form, the assumption that generates it: that ontological levels are real strata of the world rather than epistemic modes of access to a single physical reality.

The dissolution we propose is simple in structure if demanding in consequences. Once ontological levels are reconceived as epistemic dimensions, as modes of access rather than modes of being, the cross-level operator becomes a reflexive operator, and the regress dissolves. What remains is a framework of ontological monism with semantic pluralism: one world, multiple irreducible descriptive registers, and a formal account (dimensional logic) of the transitions between them.

The Hard Problem of Consciousness and the quantum measurement problem are the two most discussed cases of apparent cross-level mysteries in contemporary philosophy. We have argued that both are dimensional category errors: pseudo-questions generated by the illicit assumption that D1 and D2 descriptions must be reconcilable within a single register. Once the assumption is made explicit and abandoned, the questions do not receive answers, they are dissolved, which is philosophically stronger.

Jacobi's wound, we suggest, was always the wound of a wrong assumption. The treatment is not a better bandage but the recognition that the wound was self-inflicted.

## References

- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200–219.
- Chalmers, D. J. (1996). *The Conscious Mind: In Search of a Fundamental Theory*. Oxford University Press.
- Fuchs, C. A. (2010). QBism, the perimeter of quantum Bayesianism. arXiv preprint arXiv:1003.5209.
- Fuchs, C. A., Mermin, N. D., & Schack, R. (2014). An introduction to QBism with an application to the locality of quantum mechanics. *American Journal of Physics*, 82(8), 749–754.
- Günther, G. (1979). *Cognition and Volition: A Contribution to a Cybernetic Theory of Subjectivity*. In *Beiträge zur Grundlegung einer operationsfähigen Dialektik*, Vol. 2. Felix Meiner Verlag.
- Hegel, G. W. F. (1807/1977). *Phenomenology of Spirit* (A. V. Miller, Trans.). Oxford University Press.
- Husserl, E. (1913/1982). *Ideas: General Introduction to Pure Phenomenology* (F. Kersten, Trans.). Martinus Nijhoff.
- Husserl, E. (1954/1970). *The Crisis of European Sciences and Transcendental Phenomenology* (D. Carr, Trans.). Northwestern University Press.

- Jacobi, F. H. (1787/1994). *The Main Philosophical Writings and the Novel Allwill* (G. di Giovanni, Trans.). McGill-Queen's University Press.
- Kant, I. (1781/1998). *Critique of Pure Reason* (P. Guyer & A. W. Wood, Trans.). Cambridge University Press.
- [Stegemann, W. \(2026a\). \*Dimensional Logic as a Formal Inference System\*. Zenodo.](#)
- [Stegemann, W. \(2026b\). \*Perspective Ontology and Dimensional Logic\*. Zenodo.](#)
- [Stegemann, W. \(2026c\). \*Experience as Self-Reference\*. Zenodo.](#)
- Vaihinger, H. (1911/1924). *The Philosophy of "As If"* (C. K. Ogden, Trans.). Kegan Paul.
- Whitehead, A. N. (1929). *Process and Reality: An Essay in Cosmology*. Macmillan.