

Correct, but Worldless

Why Theoretical Correctness Does Not Guarantee Ontological Grounding

Author: Timothy Speed

Affiliation: Independent Researcher

Contact: info@timothy-speed.com

<https://timothy-speed.org>

DOI: <https://doi.org/10.5281/zenodo.18134901>

ORCID: <https://orcid.org/0009-0002-0143-5949>

© 2026 — CC BY-NC-ND 4.0

Abstract:

Modern physical theories are characterized by a high degree of formal coherence, empirical validation, and technical effectiveness. Their explanatory power is undisputed. At the same time, however, it is often tacitly assumed that theoretical correctness is already sufficient to ontologically ground world. This equation usually remains unarticulated and is neither justified nor systematically reflected.

The present contribution intervenes precisely at this point. It introduces a categorical distinction between **theoretical correctness** and **world-founding capacity**. Theoretical correctness denotes the internal consistency, empirical adequacy, and formal completeness of a model. World-founding capacity, by contrast, denotes the condition under which *something* can appear as world at all, become effective, and bind historically.

The central thesis is:

A theory can be fully correct, empirically unassailable, and technically successful—and nevertheless remain ontologically worldless. World-founding capacity does not require increasing complexity, informational density, or model accuracy, but a structural openness that cannot be fully formalized without destroying its own condition.

This contribution explicitly does not present a critique of physical theories, information-theoretical models, or simulations. It alters no equations and calls no empirical results into question. Instead, it explicates a meta-ontological boundary: it shows why formal completeness and ontological grounding concern categorically different levels, and why their conflation leads to systematic misinterpretations—particularly in debates on simulation, information, artificial intelligence, and world reconstruction.

The aim is not a new ontology in a narrow sense, but a more precise conceptual clarification: the clarification of what theories can accomplish—and what they themselves must already presuppose in order to be able to thematize world at all.

This paper functions as an interface text within a larger operator-based research corpus. Core concepts are applied here, not re-derived. The underlying research operates in a non-linear, rhythmically recursive epistemic mode grounded in an autistic form of structural perception; the present text provides an interface translation for academic contexts.

1. Introduction

Modern sciences—particularly physics—operate with a remarkable degree of theoretical precision. Their models are mathematically consistent, empirically highly validated, and technologically extraordinarily effective. In many domains, their explanatory power is so successful that it is de facto regarded as sufficient to capture reality itself. Theories thus appear not merely as descriptions of the world, but implicitly as its ontological foundations.

This shift usually occurs tacitly. It is rarely stated explicitly that theoretical correctness already grounds world; rather, this is presupposed. Where a theory is consistent, complete, and empirically stable, it is assumed to be ontologically sufficient. It is precisely at this point that the present contribution intervenes.

It is not directed against physical theories themselves. Their formal correctness, empirical scope, and methodological necessity are not in question here. Instead, a categorical conflation is rendered visible that cuts across many disciplines: the equation of theoretical correctness with ontological grounding. This equation is neither trivial nor harmless. It imperceptibly shifts the boundary between explanation and world, between model and reality.

The contribution argues that this boundary is not gradual but categorical. Theoretical correctness denotes the internal coherence and empirical adequacy of a model within a formally defined space of possibilities. World-founding capacity, by contrast, denotes the condition under which something can appear as world at all, become effective, and bind historically. The two levels are logically distinct. A theory can fully satisfy the one without even touching the other.

This distinction is rarely explicated in scientific practice because it lies outside the methodological jurisdiction of individual disciplines. Physics, information theory, or simulation theory necessarily operate under abstraction. They presuppose stability, comparability, and formal closure in order to be capable of explanation. It is precisely these presuppositions that make them successful—and that simultaneously mark their ontological boundary.

The present text therefore does not understand itself as an extension of existing theories, but as a meta-clarification of their scope. It formulates an exclusion criterion: world cannot arise from complete determinacy. Where reality can be fully formally closed, stability emerges—but no world. World-founding capacity presupposes a structural openness that is not to be understood as a deficit, but as a condition of appearance, perspective, and binding.

This thesis is not justified by new empirical findings, but by a conceptual reconstruction. The text shows why correctness and completeness are necessary properties of theories, but not sufficient conditions for ontological grounding. It makes visible why theories must presuppose world in order to describe it—and why this presupposition itself cannot be theoretically produced without losing its character.

In this sense, the contribution is neither a critique of science nor a plea for metaphysical supplements. It is a boundary determination. It clarifies what theories can accomplish—and what they cannot accomplish precisely because they are correct.

2. From Theoretical Correctness to World-Founding Capacity

The problem sketched so far makes clear that the question of the ontological reach of theories cannot be decided at the level of their internal correctness. In order to grasp this point precisely, a conceptual differentiation is required that usually remains implicit in scientific practice. The present contribution therefore introduces a distinction that is not terminologically new, but categorically clarifying: the distinction between theoretical correctness and world-founding capacity.

Theoretical correctness is here understood as the capacity of a theory to operate consistently within a defined formal framework, to deliver empirically testable predictions, and to confirm these predictions in a stable manner. A theoretically correct theory is free of contradiction, reproducible, and methodologically controllable. Its statements are unambiguously determined within the chosen model space and in principle fully explicable. In this sense, theoretical correctness is an internal property of models and theories. It concerns their structure, not their ontological status.

World-founding capacity, by contrast, does not denote a property of theories in the narrow sense, but a condition of the possibility of world itself. What is meant by this is the condition under which something can appear as world at all, become effective, and bind historically. World-founding capacity does not concern the description of states or processes within a given world, but the question of how world as a viable context comes about in the first place.

These two levels must not be conflated. Theoretical correctness necessarily operates within an already stabilized space of possibilities. It presupposes comparability, repeatability, and formal closure. World-founding capacity, by contrast, concerns precisely the emergence and maintenance of such a space. It therefore cannot itself be fully formalized without relapsing into the logic of theoretical correctness that it first makes possible.

The decisive point here is not that theoretical correctness would be insufficient or erroneous. On the contrary, its strength lies precisely in the deliberate abstraction from ontological openness. This abstraction is methodologically necessary and explains the success of modern theories. It becomes problematic only where it is tacitly interpreted as ontological completeness.

The distinction introduced here makes visible that theoretical correctness and world-founding capacity do not stand in a relation of supplementation. World-founding capacity is not an additional property that a theory could acquire if it were only complex enough. Rather, it marks a categorically different level. A theory can be fully correct and nevertheless make no statement about what makes world possible as world.

With this conceptual differentiation, the framework is set within which the following considerations operate. The text will not attempt to explain world in the sense of a theory. Instead, it will show why every theory—precisely in its correctness—depends on presuppositions that it cannot itself generate without undermining its own condition.

3. The Categorical Asymmetry of Correctness and World

The distinction between theoretical correctness and world-founding capacity is not symmetrical. It does not describe a relation between two properties of the same kind that could be distinguished gradually or mutually supplemented. Rather, it is a categorical asymmetry: theoretical correctness presupposes world, whereas world-founding capacity cannot arise from theoretical correctness. The one does not carry the other.

Theoretical correctness is possible only where a stable world is already treated as given. It presupposes that phenomena are recognizable, that measurements remain comparable, that concepts can be used identically, and that deviations can be identified as deviations. All of this requires a prior stabilization of world. Without this stabilization, there would be no reproducible data, no constant quantities, and no possibility of distinguishing between right and wrong. Theoretical correctness therefore necessarily operates within an already constituted world-context.

World-founding capacity, by contrast, denotes precisely the condition that precedes this stabilization. It does not concern the order within a world, but the possibility that world can arise at all as a viable context. This condition cannot itself appear as an object within a model without losing its character. As soon as world-founding capacity were to be fully formalized, it would no longer be a condition, but already the result of a stabilization—and thus no longer what it denotes.

From this follows a principled non-reversibility:

No degree of improvement, extension, or completion of theoretical models can yield world-founding capacity. More data, higher resolution, greater computational power, or more complex simulations change nothing about this boundary. They all operate within the same categorical framework: a formally closed space of possibilities that already presupposes world.

This asymmetry explains why the attempt to derive world from fully determined theories necessarily fails without this failure having to appear as an error. The failure does not manifest itself in inconsistencies or empirical contradictions, but in a lacuna: world appears as self-evidently given, without its possibility itself being thematized. The theory remains correct—but ontologically worldless.

It is important that this boundary does not denote an epistemic incompleteness. It is not a not-yet-known or an open research question that could in principle be answered. The asymmetry is structural. It marks a limit of what theory can accomplish precisely because theory depends on stability, determinacy, and closure.

In this sense, world-founding capacity is not an object of possible theorization, but an exclusion criterion: it shows where theoretical explanation necessarily ends. Theories can describe world, structure it, and make it technically usable. They cannot, however, ground from within why there is a world at all that can be described.

This insight is not to be understood as a restriction of scientific rationality, but as its precision. It protects theories from assuming ontological tasks that they cannot fulfill for structural reasons. At the same time, it makes visible why formal completeness and ontological grounding are not only different, but logically not translatable into one another.

Theses on the Categorical Distinction

1. Theoretical correctness denotes the internal consistency, empirical adequacy, and formal completeness of a model within a stabilized space of possibilities.
2. World-founding capacity denotes the condition under which something can appear as world at all, become effective, and bind historically.
3. A theory can be fully correct, empirically unassailable, and technically successful without thereby ontologically founding world.
4. Theoretical correctness presupposes world; world-founding capacity cannot be derived from theoretical correctness.
5. The relation between these two levels is not gradual, but categorically asymmetrical and non-reversible.
6. Increasing complexity, higher informational density, or greater computational power do not alter this boundary, since they operate within the same formally closed framework.
7. World-founding capacity is not an epistemic deficit and not an open research problem, but a structural exclusion criterion of what theory can accomplish.
8. Where formal completeness is misunderstood as ontological completeness, stability arises without world.

4. Physics as a Correct but Not World-Founding System

Physics offers the paradigmatic example of a theoretical practice that is highly correct and at the same time systematically does not thematize its own ontological boundary. Its models are mathematically consistent, empirically stable, and technologically effective. Within its formal framework, there is no lack of explanation.

This attitude finds a particularly clear expression in the physical self-understanding as represented, for example, by Richard Feynman: physics explains how the world functions, not what world is or why it appears as world at all. Questions of ontological grounding are deliberately bracketed—not out of negligence, but out of methodological discipline.

This very success, however, conceals a categorical presupposition: physical theories necessarily operate within an already stabilized world-context. They presuppose that measurements remain comparable, that identities are preserved over time, and that states can be identified as states. These presuppositions are not explained, but functionally assumed.

Concepts such as field, vacuum, information, or spacetime mark highly precise internal structures in physics. They describe what is effective between things, how interactions are mediated, and under which conditions observations are possible. What they do not capture is the condition under which something can appear as world at all—namely as a self-effective, historically bound context.

In this sense, physics is not incomplete, but deliberately abstract. Its formal closure is the condition of its correctness. Precisely for this reason, it cannot found world, but only operate within world. The attempt to read physical completeness as ontological completeness does not lead to deeper explanation, but to a tacit transgression of boundaries.

The minimal example of physics thus shows precisely what is meant here: Theoretical correctness is a necessary condition of scientific explanation. It is, however, not a sufficient condition for world.

5. Conclusion

The present contribution has introduced no new theory and has not refuted any existing one. It has explicated a categorical distinction that is already implicitly operative in many successful theories, but is rarely explicitly named: the distinction between theoretical correctness and world-founding capacity.

It has been shown that theoretical correctness is an internal property of models. It denotes their consistency, empirical adequacy, and formal completeness within a stabilized space of possibilities. World-founding capacity, by contrast, denotes not an achievement of theories, but the condition under which world can appear at all as a viable, effective, and historically bound context. The two levels are categorically distinct and logically not translatable into one another.

From this distinction follows a precise boundary determination: a theory can be fully correct and nevertheless make no statement about what makes world possible as world. This boundary is not a deficit of scientific rationality, but its condition. Theories can describe world only because world is already stabilized. They cannot themselves generate this stabilization without undermining their own methodological condition.

The contribution therefore does not understand itself as a critique of physics, information theory, or simulation, but as a clarification of their scope. Where formal completeness is tacitly read as ontological completeness, misinterpretations arise that have less to do with false results than with incorrectly set claims. The distinction introduced here allows these claims to be specified more precisely without relativizing the explanatory success of the theories.

Thus the question does not shift from the correctness of theories to their improvement, but to their classification. Scientific explanation remains necessary and indispensable. Its ontological reach, however, ends where world itself is no longer addressed as an object, but as a condition. To mark this boundary does not mean to limit knowledge, but to sharpen it conceptually.

The argument presented here does not address how theories represent the world, but why even correct theories cannot ontologically found it.

This paper is situated in the context of:

Speed, T. (2026). Time Difference Without Neutralization - An Ontological Supplement to Relativity Theory (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18115940>

Speed, T. (2026). The Speed of Light as the Limit of World-Connectivity - Simulation, Time, and Ontological Irreversibility (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18119171>

Speed, T. (2025). The Curve of the World - Why World-Binding Cannot Be Linear — Shift of Being, Time, and the Impossibility of the Archive (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18097931>

Speed, T. (2025). Why Time Is Directed: World Stabilization as an Ontological Condition (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18096277>

Speed, T. (2025). Form Without Blueprint - Dynamic Morphogenesis Beyond Platonic and Information-Theoretic Models (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18074714>

Speed, T. (2025). Beyond Intelligence - Emergence, Operator Relativity, and an Autistic Epistemology (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18068128>

Speed, T. (2025). Information Without World - On the Limits of Additive Information Theories in Physics (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18045445>

Speed, T. (2025). MNO and Ontological Recurrence: A Non-Representational Account of Quantum Measurement and Conscious Experience (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.17913823>

Speed, T. (2025). Orch-OR with Recurrence: A Minimal Dynamical Condition for When Objective Reductions Yield Conscious Experience (1 English). Zenodo. <https://doi.org/10.5281/zenodo.17942531>

Speed, T. (2025). Renormalization as a Boundary Operation in the Quantum Field Theory of the Standard Model (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18060365>

Speed, T. (2025). Operatoric Cognition: Pre-theoretical Structural Invariance as the Basis of Autistic Intelligence (3 English). Zenodo. <https://doi.org/10.5281/zenodo.17897109>

Speed, T. (2025). The Gap as a Condition - Pre-Ontological Operatorics and the Primacy of Response (2 English). Zenodo. <https://doi.org/10.5281/zenodo.18015885>

Speed, T. (2025). From Objects to Responses - On the Loss of Ontological Sovereignty in Contemporary Physics (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18017629>

Speed, T. (2025). Seinsverschiebung (Shift of Being) as a Pre-Ontological Category - On the Incompatibility of Existence and Understanding in Modern Regimes of Stabilization (2 English). Zenodo. <https://doi.org/10.5281/zenodo.18007628>

Speed, T. (2025). The Constructed Observer - World-Formation Beyond Representation - Why Perception Is Not Representation, but a Structural Achievement (2 English). Zenodo. <https://doi.org/10.5281/zenodo.18006170>

Speed, T. (2025). Dark Energy as an Emergent Residuum - A Minimal Operator-Based Interpretation within an MNO Framework (2 English). Zenodo. <https://doi.org/10.5281/zenodo.18015172>

Speed, T. (2025). Measurement Without an Observer - On the Spatial Stabilization of Determinacy in the MNO Model (Version 1). Zenodo. <https://doi.org/10.5281/zenodo.18020588>

