Free Will, Determinism, and the Participatory Unfolding of Time……

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❖ Abstract

The debate between free will and determinism has long been framed as a binary conflict: either human agency is illusory, fully determined by prior causes, or it exists as an irreducible freedom standing outside physical law. This paper argues that both positions fail because they assume a static conception of time and linear causality. Drawing on a cosmological framework[1] in which time itself is emergent, curved, and spectrally differentiated between latent and patent realms[2], this work proposes a third position:, that of participatory agency[3]. In this view, freedom is neither absolute nor absent, but arises gradually as systems gain temporal depth, memory, reflection, and meaning attribution. The Will-to-Be[4] is presented not as a faculty of choice, but as a universal propensity toward manifestation and experience, from which localized agency emerges. Human free will, therefore, is not the power to act without cause, but the capacity to participate in the unfolding of reality through reflective engagement with time.

❖ Introduction: A Stalled Debate

The question of free will has endured not because it is poorly framed, but because it is *misframed*. Philosophers and scientists alike have tended to ask whether human beings are free *within* a universe whose fundamental nature is already assumed. Determinists begin

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[1] The Temporal Curvature and Modal Continuum (TCMC) (Originally referred to the Temporal Cavitation Model of Cosmology) refers to the framework in which time is understood not as a uniform, linear parameter, but as a dynamically curved and spectrally differentiated continuum. Within this model, temporal curvature governs the rate, density, and structure of becoming, allowing for varying degrees of causality, memory, and emergence. The TCMC provides the underlying basis for the transition from potentiality to experienced reality and enables the emergence of complex phenomena such as entropy, agency, and reflection.

[2] The latent realm denotes a state of reality characterized by unmanifested potential, minimal differentiation, and the absence of experience or temporality as conventionally understood. While the patent realm refers to the expressed, differentiated domain in which time unfolds, interactions occur, and experience becomes possible. The transition between the latent and patent realms is not a discrete event but a continuous process mediated by temporal curvature, giving rise to observable physical phenomena and experiential structures.

[3] Participatory agency is the capacity of a system to influence its own future states through reflection, memory, and contextual awareness within the constraints of causal continuity. Rather than implying freedom from causation, participatory agency describes a mode of engagement in which a system becomes an active contributor to its own unfolding by integrating past experience with anticipated outcomes. This form of agency is spectral, increasing with temporal depth and organizational complexity.

[4] The Will-to-Be refers to a fundamental propensity inherent in reality toward existence, manifestation, differentiation, and experience. It is not a conscious intention or directive force, but an ontological tendency that drives the transition from latent potential to patent expression. In complex systems, the Will-to-Be becomes locally articulated as self-reflection, meaning attribution, and purpose behavior, forming the ground from which experiential agency arises.

with a law-governed cosmos and ask whether freedom can survive it. Libertarians begin with the experience of choice and ask how the universe must be structured to allow it.

What both positions share is an implicit commitment to time as a fixed backdrop, flowing uniformly and independently of experience. Within such a framework, agency must either violate causality or submit to it entirely.

This paper argues that this framing is inadequate. If time itself is not fundamental, but emergent, curved, and spectrally structured, then freedom is not something that either exists or does not exist. It is something that develops.

1. The Case for No Free Will: Strengths and Limits

Deterministic arguments against free will are powerful and should not be dismissed lightly. They arise from a deep respect for causal continuity and physical coherence.

From this perspective, every human action is the result of prior neural states, shaped by genetics, conditioned by environment, and constrained by physical law.

Neuroscientific findings that show neural precursors to conscious decision-making appear to reinforce this view, suggesting that conscious will is not the originator of action, but its observer.

Within a flat, linear conception of time, this conclusion is difficult to escape. If every moment follows inevitably from the one before it, then the sensation of choice is merely the mind witnessing its own unfolding.

Yet determinism's strength is also its limitation. It explains motion, but not meaning. It accounts for sequence, but not for reflection, the peculiar human capacity to stand in relation to one's own experience, to re-evaluate, reframe, and alter future trajectories based on remembered pasts and imagined futures.

Determinism treats reflection as epiphenomenal. My work treats it as ontologically significant.

2. The Case for Free Will: Intuition and Its Problem

Libertarian free will begins not with physics, but with experience. We experience ourselves as deliberating, resisting impulse, choosing against habit, and becoming different over time. To deny this, it is argued, is to deny the most immediate datum of human existence.

However, libertarian free will often invokes a freedom that is difficult to reconcile with any coherent universe: the idea that, under identical conditions, one could have done otherwise. This requires either indeterministic randomness (which is not agency), or a will that stands outside causation altogether.

Such a will becomes metaphysically isolated, free, but disconnected from the world it acts within.

My position avoids this trap by rejecting the assumption that *conditions are ever identical*. Time, in my framework, is not repeatable. Each moment is singular because it is situated within a continuously unfolding curvature of temporal potential.

3. Time as the Missing Variable

At the heart of my position is a rethinking of time itself.

Time is not merely a parameter by which change is measured; it is the medium through which change becomes possible. In my cosmological model, reality unfolds from a latent realm, rich in potential but devoid of experience, into a patent realm, where differentiation, interaction, and reflection occur.

This unfolding is not uniform. Time possesses curvature, density, and gradient. As temporal complexity increases, so too does the capacity for systems to retain memory, anticipate outcomes, and reflect upon experience.

Agency does not appear suddenly. It emerges gradually as time acquires structure.

4. The Will-to-Be: Propensity, Not Choice

Central to my framework is the concept of the Will-to-Be. This is not a personal will, nor a conscious chooser. It is a universal propensity toward manifestation, differentiation, and experience.

The Will-to-Be does not decide, does not deliberate, and does not choose between alternatives. Rather, it presses reality toward expression.

Human choice arises not in opposition to this force, but as one of its highest articulations. What we call “free will” is the localized capacity of a system, rich in temporal depth, to reflect the Will-to-Be back upon itself.

In other words, human choice is not a rebellion against the forces that shape the universe, nor is it something magically separate from them. Instead, choice is one of the most refined ways those forces express themselves.

The *Will-to-Be* is the universe’s drive to exist, unfold, and experience. In simple systems, it shows up as motion, growth, or reaction. In complex systems, like human beings, it becomes self-aware.

So what we call *free will* is not the power to act without cause. It is the ability of a Being with memory, imagination, and reflection to turn that universal drive inward, to look at itself, evaluate possibilities, and participate consciously in what comes next.

5. Participatory Agency

Within this framework, agency is neither illusory nor absolute. It is participatory.

A rock does not choose because it does not remember. A cell exhibits minimal agency because it responds but does not reflect. An animal possesses greater agency because it learns. A human possesses a higher degree still because they can imagine futures, reinterpret pasts, and assign meaning to experience.

Freedom, therefore, is spectral, not binary. To be free is not to be uncaused. It is to be causally involved in one's own becoming.

6. Responsibility Without Absolutism

This view preserves responsibility without moral rigidity. Actions arise from contexts, histories, and constraints, but also from reflective participation. Responsibility becomes developmental rather than punitive, oriented toward growth rather than blame.

Justice, in such a worldview, shifts from retribution to guidance. Moral judgment gives way to moral understanding.

7. Why the Classical Debate Fails

The free will versus no–free will debate has endured because both sides are partially correct, and partially blind.

Determinism correctly emphasizes continuity and constraint, but flattens time. Libertarian free will correctly honours experience and meaning, but isolates agency from the world.

My position resolves the tension by recognizing that freedom is something time does as it deepens.

❖ Conclusion: Freedom as Becoming

In a temporally curved universe, freedom is not a switch that is either on or off. It is a capacity that grows as reality becomes capable of reflecting upon itself.

Human free will is not the power to escape causality, but the power to participate in causality with awareness.

In this sense, we are neither puppets nor sovereign authors. We are participants in an unfolding reality, shaped by the past, oriented toward the future, and capable, within limits, of contributing to what becomes. Freedom is not given. It emerges. [5]

[5] Artificial intelligence was employed in the preparation of this work solely as a research and editorial tool, assisting with grammar, clarity, flow and coherence. The thematic integration, conceptual exploration, the interpretations of principles, development of ideas, and the resulting conclusions herein presented, are entirely the author's own.

❖ References and Suggested Readings

While this essay is reflective and philosophical in nature, drawing primarily from my own insights, experience and knowledge, this reference section provides context and support by acknowledging relevant works and thinkers whose ideas intersect with my own. Here are some suggested references to explore the subject more deeply:

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