

Peer Review

Review of: "From Coherence to Control: A Non-Systematic Approach to Multi-Parametric Phenomena"

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This commentary offers a compelling philosophical reframing of experimental science, arguing that coherence, rather than strict control, constitutes the true frontier of understanding in complex, non-equilibrium systems. By weaving together historical epistemology, self-organization theory, emergent geometry, and contemporary photonic insights, the author articulates a vision of experimentation as participatory recognition rather than mechanical domination. This perspective is strongly supported by recent experimental studies in hydrated DNA systems, where reproducible coherence emerges not through deterministic control but through the recurrence of stable collective states under fluctuation. In particular, the observation of an ohmic-polarization transition and quantized metastable attractors at ambient conditions demonstrates that meaningful order can arise from instability itself, consistent with the framework proposed here (Pietruszka, *BioSystems* 238, 105708, 2026 <https://authors.elsevier.com/a/1mShj14z5IH28t>, [arXiv:2601.06089v2](#)). Together, these works substantiate the central thesis that coherence is an experimentally accessible physical principle – one that transforms variability from an obstacle into a source of discovery and redefines the scientist not as a controller of nature, but as an interpreter of its emergent order.

Declarations

Potential competing interests: No potential competing interests to declare.