Consciousness-Augmented Selection in Quantum Dynamics: Interpreting ψ as Coarse-Graining, Collapse Bias, and Teleological Weighting in a Consciousness–Ethics Field Framework

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Abstract

We propose an interpretive framework in which a global parameter ψ modulates not raw propagation speed but the *selection* and *operational accessibility* of correlations in quantum dynamics. Building on observer-participation motifs and environment-induced selection (quantum Darwinism), we treat ψ as a scalar coarse-graining/selection weight that can bias which branches become stabilized as experienced outcomes, while remaining compatible with no-signaling constraints when properly formulated. We outline a toy consciousness–ethics field formalism with two scalar fields: a consciousness field $\Phi_c(x)$ and an ethical field $E(x)$, and we propose an ethically biased collapse weighting of Born-rule probabilities. We clarify how this selection-centric view can coexist with emergent/holographic ideas (e.g., ER=EPR/AdS-CFT) without asserting superluminal signaling. A companion paper (Paper A) explores a dispersion-deformation toy model that can yield effective superluminal group velocities; the present paper reframes the role of ψ as correlation-selection rather than as a "velocity multiplier." We also specify falsifiable statistical signatures and experimental constraints.

1 Motivation

Interpretations of quantum mechanics disagree on what, if anything, "selects" a unique experienced outcome from a superposition. Environment-induced decoherence explains suppression of interference but does not by itself constitute a unique-outcome selection rule. Related programs propose that stable classical reality emerges through redundancy and selection of pointer states (Zurek, 2003). Observer-participation perspectives emphasize that measurement contexts matter (Wheeler, 1983; von Neumann, 1955).

This paper introduces ψ as a phenomenological selection parameter: a scalar weight that modulates which correlations become operationally available to agents and instruments, rather than as a direct "speed-up" factor.

2 Definitions: $\Phi_c(x)$, $E(x)$, and ψ

We define two hypothetical scalar fields:

- $\Phi_c(x)$: a consciousness field representing intensity/topology of awareness.
- $E(x)$: an ethical/teleological field representing value-oriented structure.

We treat ψ as a global (or slowly varying) scalar that modulates how strongly these fields influence selection dynamics. In this paper, ψ is not assumed to be under direct voluntary control; it is a modeling parameter that may correlate with coherence, integration, or other operational proxies.

3 ψ as Selection/Coarse-Graining Rather Than a Speed Knob

A central proposal is that ψ affects *which correlations are stabilized* rather than how quickly signals propagate. Conceptually:

$$\psi \text{ modulates (branch selection / redundancy weighting / coarse-graining)}, \quad \text{not} \quad v. \tag{1}$$

This choice is deliberate: it avoids conflating superluminal group velocity or nonlocal correlations with superluminal *signaling*. The physically relevant constraints (no-signaling, microcausality) operate at the level of operational channels, not at the level of interpretive selection weights.

4 A ψ-Modulated Collapse Weighting

Let a quantum state be expanded as $|\Psi\rangle = \sum_i c_i |i\rangle$. The standard Born rule assigns $P(i) = |c_i|^2$. We propose a phenomenological weighting of the form

$$P(i) \propto |c_i|^2 \exp\left[\lambda\, \psi\, S_i(\Phi_c, E)\right], \tag{2}$$

where λ is a small coupling constant and $S_i(\Phi_c, E)$ is a scalar "selection score" associated with outcome i. For example, S_i could depend on:

- local increases in integrated Φ_c coherence,
- local decreases in conflict/instability relative to E,
- redundancy of records (Darwinism-like stability).

Normalization enforces $\sum_i P(i) = 1$.

4.1 No-signaling and operational constraints

Equation (2) is *not* claimed to allow controllable faster-than-light signaling. Any viable version must be consistent with operational no-signaling. One sufficient strategy is to restrict S_i to depend only on local reduced density matrices and locally accessible records, thereby preventing remote choice from modulating local outcome statistics in a controllable way. Establishing this rigorously requires an explicit dynamical model; we present Eq. (2) as a constrained phenomenological hypothesis.

5 Relation to Quantum Darwinism and Observer Participation

Quantum Darwinism proposes that classicality emerges because certain pointer states proliferate redundant records in the environment (Zurek, 2003). The present framework can be interpreted as adding a ψ-weighted preference for outcomes that maximize redundancy, stability, and coherence of records, with Φ_c and E acting as additional structure in the selection score.

Observer-participation perspectives emphasize the role of measurement context in defining what becomes "real" in experience (Wheeler, 1983). In this paper, ψ is a scalar that modulates the strength of that contextual stabilization without requiring explicit superluminal dynamics.

6 Connection to Emergent/Holographic Ideas (Nonlocal Encoding Without FTL Signaling)

Holographic dualities and ER=EPR-style ideas motivate the possibility that spacetime geometry and locality are emergent from entanglement structure (Maldacena, 1998; Susskind, 2016). In such a setting, nonlocal correlations can be fundamental without enabling superluminal signaling. The ψ-selection view is compatible with this: it reframes "faster-than-light" temptations as misreadings of correlation structure and selection of accessible records.

7 Falsifiability and Experimental Signatures

The framework is speculative but can be constrained. Potential empirical signatures include:

- Tiny deviations from Born statistics correlated with controlled changes in record redundancy/coherence in measurement environments.
- Context-dependent shifts in quantum randomness under strict pre-registered protocols, if ψ correlates with measurable coherence proxies.
- Null results at increasing sensitivity bounds the product $\lambda\psi$ toward zero.

We emphasize that extraordinary claims require extraordinary controls; the model must be framed so it can be falsified, not immunized.

8 Ethical/Teleological Commitments and the Non-Neutrality Clause

Introducing $E(x)$ and a selection score $S_i(\Phi_c, E)$ is a non-neutral move. It asserts that value-like structure can enter physics as an effective selection bias. This claim is philosophical as well as physical; it must therefore remain explicitly labeled as hypothesis.

9 Conclusion

We proposed that a consciousness-augmented parameter ψ can be interpreted as a selection/coarse-graining weight that modulates operational accessibility of correlations, rather than directly increasing propagation speeds. We presented a phenomenological collapse-weighting rule and discussed compatibility with decoherence, Darwinism, and emergent/holographic notions while avoiding claims of controllable faster-than-light signaling. A companion paper (Paper A) explores a dispersion-deformation toy model that yields effective superluminal group velocities; here we argue that the more durable interpretation of ψ is selection, not speed.

Companion Paper

Paper A: *Iterative Deformations of the Massless Dispersion Relation: Effective Superluminal Group Velocities Without Superluminal Signaling in a Toy Model Inspired by Quantum-Gravity Programs.*

References

Zurek, W. H. (2003). Decoherence, einselection, and the quantum origins of the classical. *Reviews of Modern Physics*, 75, 715.

Wheeler, J. A. (1983). Law without law. In *Quantum Theory and Measurement*.

von Neumann, J. (1955). *Mathematical Foundations of Quantum Mechanics*. Princeton University Press.

Maldacena, J. (1998). The large N limit of superconformal field theories and supergravity. *Advances in Theoretical and Mathematical Physics*, 2, 231–252.

Susskind, L. (2016). Copenhagen vs Everett, teleportation, and ER=EPR. *Fortschritte der Physik*, 64, 551–564.