Collapse into Translation: A Fundamental Organizational Principle for the Emergence of Conscious Awareness

Understanding how subjective awareness emerges from physical processes remains one of the fundamental unresolved questions in science. Although neuroscience has identified many mechanisms underlying perception, cognition, and information processing, the transition from objective physical interactions to subjective experience remains a central challenge. This paper proposes the **Collapse into Translation theory**, which identifies translation as a fundamental organizational principle through which first-order perceptual states and higher-order symbolic states become integrated into a unified phenomenological identity during embodied sensory–motor interaction with the environment.

The central relation is expressed as $C = (X^* \equiv Y^*)$, where $\mathbf{X}^*$ represents a first-order perceptual state generated through interaction with the external world, and $\mathbf{Y}^*$ represents a higher-order symbolic state generated through embodied action and sensory feedback. The symbol ≡ denotes not simple correspondence or association, but the emergence of a phenomenological identity: the external object and its symbolic representation become unified within conscious experience while preserving their distinct physical origins. Consciousness therefore does not arise from perception alone or symbolic processing alone, but from the relational integration of both.

A paradigmatic example is Helen Keller's realization that the tactile symbol "w-a-t-e-r" referred to the flowing substance she experienced through touch. Before this moment, the tactile sensation and the symbolic pattern existed as separate experiences. Their integration created a new meaningful identity in which the physical object and its symbolic representation became one conscious object. This transition illustrates the proposed collapse from separate perceptual and symbolic states into a unified phenomenological state.

The theory identifies three structural variables underlying conscious experience: **S1**, the primary sensory modality receiving external stimulation; **M**, the motor system generating symbolic action through vocal articulation, gesture, or manual signing; and **S2**, the sensory modality receiving feedback from that action. Consciousness therefore depends not on a particular sensory modality but on the relational organization connecting perception, action, and feedback. This framework applies across diverse forms of embodiment, including vision, touch, blindness, deafness, sign language, and deaf-blind communication.

The Collapse into Translation framework also suggests conceptual parallels with fundamental questions in physics. Although developed independently of quantum theory, the proposed organizational principle shares a conceptual similarity with descriptions of physical systems in which initially distinct states become integrated into unified states. Likewise, symbolic actions require continuous physical reorganization through space and time. These parallels do not imply a shared mechanism but suggest a common

organizational question: how distinct physical states become transformed into unified functional realities.

By identifying translation as a fundamental process linking physical interaction, symbolic representation, and conscious experience, this framework offers a new perspective on the emergence of subjective awareness. It provides experimentally testable predictions concerning sensory–motor coupling, symbolic processing, and transitions between unconscious and conscious states, while establishing connections among neuroscience, cognitive science, philosophy of mind, computational modeling, artificial intelligence, and conceptual approaches in physics.