"The Function of Consciousness in the Nervous System: Passive Frame Theory"

What is the primary function of consciousness in the nervous system? To answer this question, we developed Passive Frame Theory (PFT), an internally coherent framework that, from an action-based perspective, synthesizes empirically supported hypotheses from diverse fields of investigation. PFT proposes that the primary function of consciousness is well circumscribed, serving the somatic nervous system. For this system, consciousness serves as a “frame” that constrains and directs skeletal muscle output, thereby yielding adaptive behavior. The mechanism by which consciousness achieves this is more counterintuitive, passive, and “low level” than the kinds of functions that theorists have previously attributed to consciousness. In the framework, consciousness is passive albeit essential: Without consciousness, there would not be adaptive skeletomotor action. Our untraditional, action-based perspective focuses on olfaction instead of on vision and is descriptive (describing the products of nature as they evolved to be) rather than normative (construing processes in terms of how they should function). PFT begins to isolate the neuroanatomical, cognitive-mechanistic, and representational (e.g., conscious contents) processes associated with consciousness. The approach attempts to illuminate what consciousness is, in mechanistic and functional terms; it does not address the “implementation” level of analysis (how neurons instantiate conscious states). However, the framework provides clues regarding this enigma.