# Coherence-Preserving Deception in Trauma:
# An Active-Inference Account of Model Stabilization

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## ABSTRACT

This paper proposes a neurocomputational reframing of trauma-linked deception as an adaptive strategy to preserve predictive coherence. Drawing from Predictive Dissociation Therapy (PDT) and hierarchical predictive processing, I suggest that in trauma-impacted individuals, some truthdivergent outputs are not volitional lies but forms of Coherence-Preserving Deception (CPD). CPD refers to responses that stabilize the predictive self-model when honesty would evoke overwhelming prediction error tied to high-precision identity or attachment priors (see Box 1 for definitions and boundary conditions). Within systems shaped by disorganizing or repeated trauma, the truth itself may function as a destabilizing force, threatening identity, evoking shame, or introducing intolerable uncertainty. In such cases, CPD emerges as a protective output of active inference, suppressing prediction error and maintaining survivable coherence. This framework distinguishes CPD from impression management, malingering, and confabulation, and integrates findings from predictive coding, computational neuroscience, and trauma theory. Neuroimaging and electrophysiological studies reveal overlap between deception, conflict detection, and narrative self-monitoring. Rather than using reverse inference from these activations, I propose model comparison with multimodal evidence (behavioral, autonomic, EEG/fMRI) to test whether CPD patterns are better explained by active-inference mechanisms than by cost–benefit deception models. Clinically, reframing deception as CPD invites a shift from confrontation to model-sensitive repair. Rather than asking, "Why aren't you telling the truth?" the therapeutic task becomes, "What prediction would be destabilized if the truth were allowed to rise?" This perspective offers a biologically grounded, trauma-informed alternative to punitive interpretations, especially in high-functioning clients whose inconsistent narratives reflect survival-aligned coherence preservation.

**Keywords**: predictive coding, trauma, coherence-preserving deception (CPD), dissociation, active inference