

Peer Review

Review of: "From Circuit Descriptions to Testable Mechanism Space in PTSD: A Minimal, Identifiability-Aware Computational Framework for Heterogeneous Threat Inference"

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This is a thoughtful and carefully framed conceptual synthesis that addresses an important gap between circuit-level descriptions and adjudicable mechanisms in PTSD. I particularly appreciated the explicit attention to identifiability constraints and the clear distinction between causal levers and state-dependent modulators. As a minor revision, the manuscript would benefit from a brief worked hypothetical example illustrating how two patients with similar symptom severity might differ across the proposed axes in practice. For instance, contrasting a CTRL-dominant presentation (intact in-session safety learning but stress-induced degradation of extinction recall and relapse under sleep disruption) with a CTX-dominant presentation (adequate stress tolerance but fear renewal following context shifts despite comparable extinction performance) would make the adjudication logic more concrete without expanding the scope. Such an example could help readers more clearly see how the framework differentiates mechanisms at the individual level.

Declarations

Potential competing interests: No potential competing interests to declare.