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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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The article discusses a computational framework of the neurobiology of PTSD and presents it as a disorder of maladaptive threat inference.

Strengths:

- The paper does a great job of synthesizing multiple domains and explaining how these mechanisms interact.
- The conceptualization of PTSD is also well done and unifies the symptoms associated with PTSD.
- The scientific caution is also much appreciated, especially in acknowledging moderators and other confounding variables, and also rejecting the use of this to determine biomarkers.

Areas of Improvement:

- The paper is very jargon-heavy, and while it is hard to avoid that in a paper about neurobiology, it also presents as inaccessible to someone who is not familiar with these concepts. It would be helpful to include a simple language walkthrough of the model or a conceptual diagram or flowchart.
- There is not enough clinical application, and what does exist is abstract. Add a section about applying the model in clinical practice.

Declarations

doi.org/10.32388/OoEXPX

Potential competing interests: No potential competing interests to declare.