

Review of: "Conceptual Differentiation of Heat: The Entropic Promise of a Post-Pyrocene World"

Aamra Urooj¹

¹ University of Wah

Potential competing interests: No potential competing interests to declare.

General Comments: The article effectively explains the historical differentiation between energy and entropy, making it understandable even to someone without a thermodynamics background. Even those who are not familiar with thermodynamics will find the article's explanation of the historical distinction between energy and entropy to be clear. The field's current topic is well-examined by presenting both entropy-centric and conventional points of view. A useful criticism that opens the door to a fresh viewpoint is pointing out the potential incompleteness of conventional thermodynamics. The author portrayed an interesting introduction to Unified Classical Thermodynamics. A detailed explanation of its core concepts and principles may be considered.

Comment 1: How UCT addresses the limitations of conventional thermodynamics. It can be illustrated through examples.

Comment 2: Could you add the diagrams or graphs that would effectively visualize the differentiation between entropy and free energy?

Comment 3: Can the author provide a more specific example of how free energy is improved upon in Unified Classical Thermodynamics?

Comment 4: Can you provide specific examples or case studies where UCT could solve real-world problems?

Comment 5: Mentioning the limitations and challenges of the novel UCT in the conclusion section can help provide a balanced perspective.

Comment 6: A discussion on gaps in the UCT theory can be done in the conclusion section. It may help provide the roadmap for future research in this field.