

Peer Review

Review of: "Multiscale Entropic Ethics: A Non-Scalar, Auditable Grammar for Decision-Making Under Irreversibility"

Abner Uzai Guzman Argueta¹

1. Universidad Nacional Autónoma de México, Mexico

This paper is novel in proposing a general grammar for decision-making in complex systems. It stands out for using entropy in a strictly descriptive way, as a lens to analyze irreversibility, uncertainty, and informational integrity, avoiding the classic mistake of moralizing it as “good = low entropy.” It also excels in its non-scalar approach, where values are not collapsed into a single metric but are kept as plural reasons that can sometimes be incomparable.

The layered architecture contributes a straightforward procedure: legitimacy filters, multiscale evaluation, robustness and sensitivity analyses, plus anti-Goodhart defenses via adversarial audits, all institutionalized for real-world use. The case study clearly demonstrates its advantage over traditional cost-benefit approaches by making visible dimensions that are often ignored (rights, ecological impacts, and long-term risks).

MEE provides a solid foundation for robust decisions under complexity and irreversibility. The next step is to validate it through prospective pilot projects and to pair it with binding governance mechanisms so that it does not remain merely a moral best practice.

Declarations

Potential competing interests: No potential competing interests to declare.