

Peer Review

Review of: "Artificial Intelligence Like Humans; Humans Like AI: Epistemology of Analogy and Our Expectations Beyond It"

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Overall Evaluation

Ana Bazac's article explores the epistemology of analogy in human and artificial cognition. The paper is ambitious in scope and philosophically rich. It engages with the history of science and contemporary debates and advances the claim that analogy is a fundamental mechanism for both human and AI cognition. The optimistic vision of AI as a force that can expand human knowledge and values is timely and provocative.

At the same time, the article falls short in several key areas. The writing is difficult to follow, the methodology is insufficiently explicit, and the arguments lack grounding in technical details or real-world applications. Ethical considerations are acknowledged but remain underdeveloped. The paper would benefit from substantial revision before it can make a lasting contribution to interdisciplinary scholarship.

Major Concerns***Methodology***

The analysis is presented at a conceptual level but lacks a systematic framework. There are no explicit research questions, no stated criteria for selecting sources, and no clear description of analytic steps. This absence makes the reasoning appear impressionistic and difficult to evaluate. A more transparent methodological approach is needed to strengthen rigor and replicability.

Structure and Writing Style

The prose is overly complex. Paragraphs are long and contain multiple interwoven ideas without

adequate signposting. Logical flow is further obscured by the absence of section headings or topic sentences. The article would be more accessible if it were divided into clearly defined sections that build systematically toward the thesis, with shorter paragraphs and explicit transitions.

Engagement with Empirical and Technical Literature

The discussion remains abstract. It does not sufficiently engage with current technical research or empirical findings in AI. To illustrate how analogy functions in practice, the paper could examine natural language processing models, diagnostic systems in medicine, or decision-making in driverless technologies such as Tesla's autopilot. Such case studies would demonstrate both the strengths and weaknesses of analogy in real-world contexts. Without this grounding, the arguments risk appearing detached from the realities of AI research and development.

Ethical Considerations

The treatment of ethics is limited. The paper refers to the importance of values but does not engage systematically with established ethical frameworks such as fairness, transparency, accountability, or autonomy. Nor does it address urgent issues such as bias, privacy, explainability, or the global impact of AI. The optimistic vision of AI as a cognitive entity should be balanced by recognition of risks, including failures in driverless car systems and the broader societal consequences of misplaced trust in AI decision-making.

Conceptual Clarity

Key terms such as analogy, cognitive entity, and epistemology are introduced but not clearly defined. Their meaning shifts in different contexts, which creates confusion. Precise and consistent definitions, provided early in the article, would improve clarity and accessibility.

Minor Concerns

The prose relies on long sentences that obscure the central ideas. References are wide-ranging but often not tied directly to specific claims, which weakens evidentiary support.

Recommendations for Revision

1. Provide a transparent methodological framework that includes research questions, analytic steps, and criteria for source selection.
2. Restructure the article with section headings, topic sentences, and transitions to improve logical flow.

3. Ground the philosophical reflections in real-world examples such as driverless car technologies, medical AI applications, or natural language models.
4. Expand the ethical discussion by drawing on established frameworks and addressing issues including bias, privacy, accountability, and societal risks.
5. Engage more directly with recent empirical and technical studies to substantiate claims about AI's capabilities and limitations.
6. Define all key terms clearly and use them consistently.
7. Revise the prose to improve readability. Shorter sentences and more concise language will make the article accessible to a broader audience.
8. Include explicit engagement with counterarguments and limitations, especially regarding the differences between human and artificial cognition.

Conclusion

The article is ambitious and raises important philosophical questions about the role of analogy in human and artificial cognition. At present, its impact is reduced by methodological opacity, structural weaknesses, and insufficient connection to the realities of AI technology and ethics. With substantial revision, particularly through integration of real-world examples such as Tesla's driverless systems and deeper engagement with empirical and ethical literature, the paper could become a meaningful contribution to interdisciplinary work at the intersection of philosophy, cognitive science, and artificial intelligence.

Declarations

Potential competing interests: No potential competing interests to declare.