

Peer Review

Review of: "Science in Light of the Analogy of Being"

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The article aims to defend the ontological priority of the whole by drawing on the concept of the analogy of being. The author engages primarily with the philosophies of Aristotle and Aquinas and presents several arguments from science and technology to support the claim that the whole is more than the mere sum of its parts and cannot be reduced to its most basic elements.

The discussion of the analogy of being in the third section ("Hierarchy in the Material World and the Analogy of Being") is particularly valuable and contributes meaningfully to the overall argument. However, the manuscript would benefit from a more explicit engagement with the concept of emergence. A deeper consideration of emergence could help clarify the relationship between wholes and parts, between different levels of being characterised by varying degrees of complexity. While I understand the author's intention to avoid the extensive and often complicated debates surrounding emergence, incorporating selected arguments or key references from this literature would strengthen the conceptual foundation of the article.

The argument drawing on physics, particularly the reference to de Broglie's experiment, is interesting but not entirely persuasive in its current form. The discussion might be reinforced by considering, e.g., Whitehead's process-relational philosophy as an additional conceptual framework. There exists a substantial body of literature engaging Whitehead in dialogue with modern physics, especially quantum physics, and his critique of reductionism and materialism could provide a more robust philosophical grounding for the author's claims. Importantly, engaging Whitehead need not replace the Aristotelian framework; rather, it could complement it and enrich the overall argument.

It should be emphasised that the reference to Whitehead is intended merely as one possible avenue for strengthening the argument, not as a necessary framework the author must adopt. It is entirely legitimate for the author to remain within an Aristotelian–Thomistic perspective, especially if this

reflects the primary philosophical commitments of the paper. My suggestion is motivated rather by the impression that the current conceptual framework, in its present form, does not fully suffice to render the argument entirely compelling. Certain aspects of the relationship between wholes and parts, or between different levels of being, remain underdeveloped. In this respect, the literature on emergence could be helpful, as it offers more detailed analyses and, in some cases, more persuasive arguments concerning the irreducibility and hierarchical organisation of complex systems. Engaging at least selectively with this body of work could therefore enhance the clarity and strength of the overall argument.

I recommend, for instance, the following sources:

Schaffer, J. (2010). Monism: The Priority of the Whole. *Philosophical Review*, 119(1): 31-76.

El-Hani, C. H. N., & Emmeche, C. (2000). On some theoretical grounds for an organism-centered biology: Property emergence, supervenience, and downward causation. *Theory in Biosciences*, 119: 234–275.

Gare, A. (2002). Process philosophy and the emergent theory of mind: Whitehead, Lloyd Morgan and Schelling. *Concrescence: The Australasian Journal of Process Thought*, 3: 1–12.

Whitehead, A. N. (1997). *Science and the Modern World*. The Free Press.

Weber, M. (2020). A systemic reading of Whitehead's organic philosophy. *Process Studies*, 49(1):115–142.

Epperson, M. (2004): *Quantum Mechanics and the Philosophy of Alfred North Whitehead*. New York: Fordham University Press.

Tabaczek, Mariusz, O. P. (2015). "Metaphysics of Downward Causation: New Aristotelianism versus Nonreductionist Physicalism." Paper presented at *Agency and (Quantum) Physics*, Innsbruck, Austria, March 30–April 2, 2015.

Zolcer, S. (2023). Whitehead's Organic Conception of Humanity. Beyond Mechanistic Philosophy in an Age of Transhumanism. *Human Affairs*, 33(2): 250–262. <https://doi.org/10.1515/humaff-2022-1001>

Declarations

Potential competing interests: No potential competing interests to declare.