Qeios

Peer Review

Review of: "The Vicarage Iconoclast: Whitehead, Leibniz, Relativity and the Quantum"

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This is an excellent, comprehensive, and insightful analysis of the degree to which Whitehead succeeded in translating a Leibniz-style metaphysics into something compatible with modern physical theories. The conclusion, that Whitehead ultimately fails, is well argued. The commentary on more recent attempts to resolve the same problems is also cogent and informative. Richard Arthur has in the past clarified a number of issues around this topic and makes good use of his understanding, while giving plenty of space to other views and allowing the reader to draw their own conclusions.

The format of the text is challenging, and readers not familiar with the detail of the debate around Whitehead's ontology will find it hard going. Nevertheless, it reflects the central role of dialogue both between individuals and within our own heads in trying to reach a self-consistent account of the world at this level. I would recommend that any graduate student attempting to master Whitehead's legacy satisfy themselves that they have followed every single argument here!

In my own view, I think close to Arthur's, Whitehead's failure may stem from two main problems. The first is that although he makes an admirable attempt to build a metaphysics that works with both special relativity and quantum theory, this was at a time when it was likely not appreciated that the counterintuitive aspects of the two individual theories would become inextricable complementary aspects of a single quantum field theory. Savitt and Arthur's causal diamond concept is relevant here.

The second is that all speculation about fundamental ontology needs to be put into the context of what we know about the indirect representational nature of human perception. Arthur touches on the very *mediate* nature of our relations to the world. Recent contributions suggest that we are still far too attached to intuitive realist ideas, not only about space but, more importantly, about time. If anything,

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Leibniz still seems to be ahead of the game. Until neurophysiology takes seriously the question of what, within physical science, an actual occasion of experience is, confusion may continue.

And that may be the one enduring contribution of Whitehead's system - the challenge to find a fundamental physics description of our individual experiential events.

Declarations

Potential competing interests: No potential competing interests to declare.