<RPI>LEEMON B. MCHENRY. The Event Universe: The Revisionary Metaphysics of
Alfred North Whitehead. Edinburgh, Scotland: Edinburgh University Press, 2015: 169 pages.
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<RTXT>In this volume, Leemon B. McHenry proposes an event ontology that pays close attention to recent and contemporary advances in physics and is inspired by the philosophies of Alfred North Whitehead, Bertrand Russell, and Willard V. O. Quine. Confronting the penetrating questions of "What is the status of events in our general theory of the world?" (1), "How do we acquire our theory of the world?" (22), and "Which theory is more in accordance with the science of our time?" (68), McHenry investigates physical reality from the standpoint of an event ontology. The work here is "primarily philosophical in its orientation" (ix), although it explores problems that are "on the border between science and metaphysics" (viii). The possibility of a coherent, unique investigation of the relationship between science and metaphysics is based on a definite conception of metaphysics, which is summarized by the author as follows:

<REXT>[T]he position I defend is <u>revisionary</u> because it overthrows our ordinary commonsense modes of thought; <u>naturalistic</u> because it begins to construct metaphysical principles from the natural sciences--physics and cosmology in particular; and <u>realistic</u> because its naturalism demands the scientist's robust sense of a mind-independent reality as a foundation for enquiry into the nature of the physical world. (viii)

<RTXT>It is by way of this metaphysical standpoint that the present inquiry really embodies what Quine wrote in 1995 about McHenry's project: it is "the next flowering of philosophy and science: a merging of rigorous, logically sophisticated methodology and ontology with the physicists' findings and quandaries in cosmology and quantum mechanics"

(ix). Notwithstanding how ambitious the project is, the extreme clarity of McHenry's exposition and his cogent arguments make the book suitable for both scientists and philosophers, independent of their knowledge of Whitehead's work.

There are two distinct goals in the book. First, McHenry formulates an event ontology as an alternative to the substantialistic one, as present in the Western intellectual tradition.

Second, McHenry examines the theory thus far developed "within the contemporary quest for a unified theory of physics" (10). The first part of the book (i.e., chapters 1 to 3) is devoted to the former goal, which lays forth the foundation of the event ontology, investigating both its key scientific and philosophical assumptions. The second part (i.e., chapters 5 to 6) is dedicated to the latter goal, putting Whitehead's hypothesis to the test in relation to contemporary cosmological theories, such as the multiverse hypothesis. In between these two parts, chapter 4 is pivotal, because it examines and compares Whitehead's, Russell's, and Quine's own proposals for an event ontology. Finally, the last chapter illustrates the impact of event ontology in relation to other relevant philosophical issues.

The introductory chapter 1 calls into question the status of events and introduces Whitehead, Russell, and Quine (but also C. D. Broad) as those who champion event ontology. Adopting Peter Strawson's distinction between descriptive and revisionary metaphysics, the author classifies these philosophers as revisionary, insofar as they do not limit themselves to a descriptive analysis of our thinking about the world, but instead aim to change, enlarge, and improve our current schemes of thought. Furthermore, the "naturalistic" and "realistic" features of these philosophical approaches, allied together with the American pragmatists, uncover the peculiar relationship of continuity and collaboration between metaphysics and science. Indeed, for revisionary philosophers, metaphysics starts in the same manner as the natural sciences—namely, from experience and observation—and it never ends up in an absolute, philosophical system. On the contrary, it is always in process, fallible, and

open to correction.

Chapter 2 paves the way for a comparison between Whitehead and analytic philosophy. Starting from Strawson's above-mentioned distinction, this chapter focuses on the theoretical presuppositions of descriptive metaphysics. The origin of this philosophical tendency, which is present in Strawson's and Davidson's work, is found in Aristotle, who gives ontological priority to the concept of "substance" and emphasizes the idea that "grammar is the guide to ontology" (12), a notion that has led to "ordinary language philosophy" (17). On the contrary, Whitehead and Quine criticize these Aristotelian assumptions strongly. For Whitehead, they represent an instantiation of the "fallacy of misplaced concreteness" that makes us unable to grasp the original dynamism of reality, and for Quine, the exaggerated emphasis upon ordinary language does not allow us to recognize that language itself evolves and that science plays an important role in helping us to arrive at a comprehensive theory of the world.

After uncovering some of the weaknesses of descriptive metaphysics, in chapter 3, McHenry employs recent advances in physics to provide evidence for a revisionary metaphysics that is focused on the notion of "events." It exhibits the influence that Maxwell's concept of electromagnetic field, Einstein's special relativity, and the early quantum theory had on both Whitehead's early and late theories of events, together with the consequent dismissal of mechanistic materialism based upon the concept of matter as substance.

Chapter 4 represents the core of the book. It explains and compares Whitehead's ontology of events with Russell's neutral monism and Quine's theory of events and physical objects. On the whole, the gist of the chapter is that "the revisionary theory of events overthrows the descriptive theory, according to which events are dependent on substances. Events, under this new theory, are basic, and substance, as an ontological category, is eliminated" (48). Far from being just a metaphysical result, McHenry emphasizes how this

perspective is absolutely relevant for the possibility of a unified theory in physics, which encompasses the microcosmic level and the macrocosmic level of reality. This very possibility is further explored in chapter 5, where Whitehead's theory of extension is examined in conjunction with contemporary cosmological theories, in particular with the multiverse hypothesis. Although Whitehead could not have been aware of the advances that occurred in cosmology post-Hubble, his theory of cosmic epochs and his conception of laws of nature can support, and be supported by, those advances. In particular, McHenry writes that "it is an Event Multiverse, rather than an Event Universe, that describes the full scope of the event ontology" (85), in order to highlight that Whitehead's speculation suggested something like a multiverse theory in physics before related theories started to become prevalent.

In attempting to put forward a unified theory from general relativity and quantum mechanics, in chapter 6, McHenry considers the problem of the nature of time. Given the incompatible conceptions of those two theories in relation to the nature of time, the author first tries to adapt them from the perspective of the revisionary event ontology that is developed in the book. McHenry then compares three main theories in the philosophy of time (i.e., presentism, eternalism, and the growing block universe) and indicates the third one as the most suitable and closest to Whitehead's view, although Whitehead's own theory of time implies that there are some complex inconsistencies within contemporary physics. Finally, chapter 7 is dedicated to the philosophical implications of this event ontology for (i) the mind-body problem, (ii) perception, (iii) causation, (iv) free will, (v) personal identity, and (vi) moral agency. With respect to all of these topics, McHenry provides a concise, but precise, argument that can be construed as an excellent starting point for further research, conducted from a Whiteheadian perspective.

Overall, McHenry's work truly represents a rehabilitation of Whitehead's event

metaphysics in a threefold sense. First, it rehabilitates Whitehead's event metaphysics in itself because McHenry's account explains it in a compelling and comprehensible way, including some of its most difficult and complex points. Second, it rehabilitates Whitehead's event metaphysics with reference to philosophy in general, and analytic philosophy in particular, because it lays the foundations for a comparison of the two. Finally, it rehabilitates Whitehead's metaphysics with reference to science because it shows several points of influence, dialogue, and interconnection that it has in relation to recent and contemporary findings in physics and cosmology.