Paul A. Borgaard and Jason Bell, eds. *The Harvard Lectures of Alfred North Whitehead, 1924-1925: Philosophical Presuppositions of Science*. Edinburgh University Press 2017. 416 pp. $230.00 USD (Hardcover ISBN 9781474401845).

In the mathematical and logical field everybody knows the outstanding figure of Alfred North Whitehead, especially for being the co-author, with Bertrand Russell, of the three volume *Principia Mathematica* (1910-1913)—and that is the reason he is better known as a mathematician and a logician than a philosopher. Despite this, it should be noted that Alfred North Whitehead was also a great philosopher who deeply investigated human knowledge in almost all its facets (philosophy of science, metaphysics, logic, mathematics, and so on).

Recently, Paul Bogaard, and Jason Bell edited a ponderous volume containing the philosophy lectures of Alfred North Whitehead. This critical edition, part of the Edinburgh Critical Edition of the Complete Works of Alfred North Whitehead, contains the philosophy lectures that Alfred North Whitehead gave at Harvard University from the September of 1924 to May of 1925. These 85 lectures are the result of the many notes that W. P. Bell, W. E. Hocking, and Louise Heath took at the time, some of which have only recently been discovered.

The first part of the volume contains the Emerson Hall lectures notes, Harvard Yard, 1925-1925, taken by Winthrop Pickard Bell and William Ernest Hocking, while the second contains the Radcliffe College lectures notes, 1924-1925, taken by Louise Robinson Heath. The third part contains Whitehead's seminar notes from 1924-1925, taken by W. E. Hocking; it was a seminar in Metaphysics and Whitehead typically held it on Friday evenings.

Bell's notes, as Bogaard says, 'are consistently thorough, to the point of providing an almost complete record of everything he said that day – from beginning to end, including asides, jokes, reading and essay assignments – and a careful rendering of equations, diagrams and logical formalism (in *Principia Mathematica* notation), copied from the blackboard' (xxvii). Hocking also took notes at the same lectures series and furthermore 'played a role in transmitting Husserl's recommendation in support of Bell's appointment to Harvard' (xxxii). Heath was still a graduate student when she took notes at Whitehead's lectures. As Bogaard points out, luckily 'Heath preserved her notes from these lectures and passed them along to Whitehead's biographer Victor Lowe. What Lowe found were student notes – the notes of a graduate student to be sure, but designed for her own use, with all the limitations of someone unfamiliar with much of what was being said concerning mathematical physics and complete logical notation' (xxxv).

The content of the lectures is varied and Whitehead presented 'his class with no roadmap of where this course of lecture was going' (xlii). Anyway, the topics of his lecture were more or less the same as the ones that he explored in his great works like *An Enquiry Concerning the Principle of Natural Knowledge* (1919), *The Concept of Nature* (1920) and *The Principle of Relativity with Applications to Physical Science* (1922). Obviously, Whitehead extends his analysis to other topics like metaphysics, Greek philosophy, the Kantian a priori, Humean scepticism, and so on. One of the most important of Whitehead's contributions to the history of thought is the attempt to avoid the unhappy dichotomy between the natural sciences and the human or social sciences. In fact, Whitehead aimed to construct a metaphysical system able to provide a global view containing the different spheres of human culture (science, aesthetics, religion, philosophy and so on), even as philosophers like Ludwig Wittgenstein advanced a different view.

Through these lectures the reader can also witness the way Whitehead dealt with the new challenges coming from modern science, such as the rise of Einstein's theory of relativity, the rise of quantum theory, and even though, as Whitehead admits, 'These lectures are not philosophical,'

nonetheless they allow us 'to get science into a form in which one can expect philosophers to understand it' (Whitehead, *Lecture* 3, Tuesday, 30 September 1924). What Whitehead aimed to do was to get a philosophical or metaphysical synthesis in order to articulate the assumptions of science, and from that point of view it was necessary for Whitehead to turn his gaze to the key figures of the history of philosophy (Plato, Aristotle, Hume, Kant, and so on). Especially interesting from the point of view of the history of philosophy are some of Whitehead's claims about Aristotle. Whitehead's statement that philosophy is a series of footnotes to Plato is well known, but in lecture 72 from 1925 he says that despite the 'unfortunate ... bias he gave to logic' Aristotle is nonetheless the 'greatest of all philosophers all the same' (Whitehead, *Lecture* 72, 18 April 1925, 340). Another topic of Whitehead's lectures is the concept of 'abstraction,' which is conceived as the base of every science, because as he states in lecture 9 of 1924, 'procedure of thought is always procedure of abstraction' (Whitehead, *Lecture* 9, 14 October 1924, 33). In Whitehead's view, critical philosophy is something different from science, because the latter is a system of well-grounded abstractions, while the former should exert the function of explanation and coordination of these abstractions. Philosophy, in this way, must compare science with concrete facts, but this operation sometimes suffers from what Whitehead calls the 'fallacy of the misplaced concreteness,' which consists of considering our abstract schemes as reality itself. In his lecture 7 of 1924 Whitehead provides the example of an electron: 'What is an electron? etc. Our habit of thinking electron as much more concrete than it really is … Proper placing of concreteness is one of fundamental questions in metaphysics' (Whitehead, *Lecture* 7, 9 October 1924, 26).

This leads us to the problem of realism that Whitehead faced very deeply in these philosophical lectures. As is well known, Whitehead transformed the Kantian Copernican Revolution, because according to Whitehead the process starts from objectivity to subjectivity, while Kant holds the opposite. This is the so-called philosophy of organism, which is a complete overthrow of the Kantian theory of experience; while according to Kant the world emerges from the subject, according to Whitehead's philosophy of organism the subject emerges from the world. That's why Whitehead in lecture 66 of 1925 states in a lapidary way that 'Kant's excessive subjectivism lands him in hopeless difficulties' (Whitehead, *Lecture* 66, 4 April 1925, 311). Another author Whitehead turns his gaze to is the French Descartes who gave birth to modern subjectivism, but Whitehead found in his *cogito* a mistake that Descartes himself did not see. If Descartes holds that the *cogito* is the real basis of truth, on the other side, Whitehead states, '*Cogitata* cannot be represented as qualities of mind. Descartes took "secondary qualities" (Galileo already) – Said those were private passions of mind – and then brought an *inspectio* which got you things other than the mind' (Whitehead, *Lecture* 68, 9 April, 1925, 321).

In conclusion, these lectures are an extremely important tool for scholars who would like to explore the creative way Alfred North Whitehead gave form to his philosophical investigations and ideas. From that point of view, this book is like an immense laboratory of ideas concerning a great number of issues. There is also an appendix, which contains sample scans of original handwritten notes kept by Bell, Hocking, and Heath, and a very useful index, which contains both names and key-concepts.

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