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The aim of the paper is to question the historiographical association between early modern experimental philosophy and Locke's empiricism. Since early eighteenth century, Newtonian version of experimental philosophy was seen as complementary to Locke's ideas on the sources and characters of human knowledge. In the twentieth century, historians largely focused on the relationship between John Locke and another experimental philosopher, Robert Boyle. Even in this case, a strict connection between Locke's empiricism and experimental philosophy emerged.

Challenging the results of this long tradition, this paper will focus on the role of another seventeenth-century Baconian, Robert Hooke. As is well known, John Locke and Robert Hooke were part of the Oxford group which contributed to the emergence and affirmation of modern science in mid-seventeenth-century England. Influenced by Bacon's idea of science and continental ontology (Cartesian and Gassendian) Locke and Hooke expressed similar ideas on the origins and nature of knowledge. Furthermore, as Hooke's *Diary* shows, they exchanged ideas on natural philosophy during their meeting at London coffee house in 1670s. In spite of these similarities, they expressed different views on the nature of science. Focusing on the role of microscopes, inductive and transductive inferences, the paper will claim that Hooke and Locke represent two opposite approaches to natural philosophy.

In fact, Hooke's emphasis on the role of instruments and experiments drew an interventionist approach to nature. Influenced by the work of Bacon, Gilbert and the craftsmen tradition, Hooke conceived experimental philosophy as a sort of dissection of nature by means of artificial instruments. In this view, the knowledge of matter's constituents, the Baconians *schematism* and *textures*, is available by means of optical instruments and chemical or mechanical experiments. Largely influenced by Thomas Sydenham, Locke on the contrary, emphasised the limits of this interventionist approach. In particular, he considered it impossible to access the hidden level of matter by means of microscopes. Modelled on medical observations, Locke's idea of science contrasts Hooke's interventionist experimental philosophy. Comparing the ideas of Hooke and Locke on the nature of human knowledge and the characters of natural science, the paper therefore, will challenge the historiographical tradition associating Locke's empiricism and early modern experimental philosophy.