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Title*

Baconianism

Abstract*

The philosophy of Francis Bacon was interpreted in various ways in seventeenth century. In England, his utopian project and natural history became the basis for the projects of religious pacification, pedagogical reformation and scientific cooperation of Hartlib, Comenius and Charleton. In the hands of Evelyn, Wilkins and Wren, moreover, Bacon's ideal of cooperative science engendered the birth of the Royal Society, and his natural history guided the experimental activities of Boyle and Hooke. In France and the Netherlands, attention was paid to Bacon's natural history especially within the circle of friends of Descartes. In the second half of 17th century, though Bacon's historical approach was gradually supplanted by mechanical-mathematical science in Europe, Baconianism still served as a source of arguments in the Dutch Cartesian context, as to his theory of error and as a source of criticisms to Aristotelianism.

Innovative and original aspects

The reception of Bacon's philosophy was manifold, as one can distinguish between political, utopian, experimental, and metaphysical Baconianisms (Gigliani 2012). In England, the appropriation of Bacon's philosophy had a relevant social and religious character. For Samuel Hartlib and Jan Amos Comenius, Bacon's program of renovation of philosophy served as the basis for a religious pacification of society based on scientific learning and on improvement of techniques as husbandry and mining. Such learning would have been made possible by the application of Bacon's natural history, and substantiated in a pansophical collection of all knowledge (Bacon 1857a, b, c, 2000; Hartlib 1970). On a metaphysical level, Comenius and Francis Glisson endorsed Bacon's theory of matter as provided with life and appetites (Comenius 1668; Glisson 1672; Gigliani 2010, 2012). Moreover, Bacon's program of establishing a community of scientists ('Salomon's House') and his natural history were the basis of the pedagogical reform of Walter Charleton for the College of Physicians in London, a group of virtuosi aimed at the exchange of

learning, active in 1650s (Charleton 1657; Jalobeanu 2009). Eventually, Baconianism engendered the foundation of the Royal Society: according to the official history of the early Royal Society by Thomas Sprat (Sprat 1667), Baconianism inspired the activities of the ‘Oxford group’ of natural philosophers, including John Evelyn, John Wilkins, Christopher Wren, who assumed a “pure” form of Baconianism i.e. they relied on Bacon’s inductive method and theory of error (Bacon 2004a), opposed to the “vulgar” Baconianism of Hartlib and the London group (Purver 1967). This account has been corrected in more recent years, as also this group was largely relying on the Baconian ideal of a cooperative science and natural history (Hunter 1981; Agassi 2013; Gaukroger 2001; Jalobeanu 2009 and 2015). Also, Bacon’s natural history influenced the experimental philosophy of Robert Boyle and Robert Hooke, using the Baconian distinctions between luciferous, fructiferous, solitary and in consort experiments, and the notion of crucial experiment (Boyle 1665; Hooke 1679, 1705; Bacon 1996a, b, 2004b, 2007; Anstey 2014). Moreover, Baconianism inspired the failed attempt of Sprat, Joseph Glanvill and Abraham Cowley of establishing a College for the Society modelled on the ‘Salomon’s House’ in 1660s (Hunter 1984).

In France, Nicolas Fabri de Peiresc planned to translate Bacon’s natural histories, and Pierre Amboise abridged Bacon’s *Sylva sylvarum* by the technique of common-placing (Yeo 2007; Jalobeanu 2014). Moreover, Marin Mersenne developed an interest for Bacon’s natural history after having first rejected his empirical method as atheist and sceptical. Under the influence of Descartes, who asked him empirical data for the study of meteorology, Mersenne deepened Bacon’s historical study of sound (Mersenne 1648; Buccolini 2013). In the Netherlands, Bacon’s natural history was commented by Isaac Beeckman in his *Journal*, though he criticized Bacon’s relying on the qualitative properties of matter rather than on mechanism and mathematics (Beeckman 1939-1954; Gemelli 2013, 2014). With the emergence of Dutch Cartesianism in 1650s, Bacon’s philosophy offered a theory of error and an account of past philosophical theories which served to criticize the Scholastic approach to science, as by Johannes de Raey and Burchard de Volder. Also, it served as a *medicina mentis* in the introduction of students to philosophy, as in the works of Johannes Clauberg and Arnout Geulinx (Clauberg 1691; Bacon 1996c, 2004a; Geulinx 1665; De Raey 1654; De Volder 1681; Elena 1991; Strazzoni 2012). Eventually, the emergence of a mathematical natural philosophy expounded by the Newtonians supplanted Baconianism in European science (Anstey 2015).

Cross-References (if there are any; please include a list of other entries in this encyclopedia that may be of further interest to your readers.)

Bacon, Francis

Hartlib, Samuel

Boyle, Robert

Matter

Observation

Natural History

Descartes, René

Technology

Wilkins, John

Education

Comenius, Jan Amos

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