

Book Reviews

Although the author attacks the teleological view of history of science, he does not escape the temptation of describing the development of science—and medicine—as the history of scientific discoveries. He pays very little interest to the broader intellectual milieu of scientific and medical activities.

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A. RUPERT HALL, *Henry More: magic, religion and experiment*, Blackwell Science Biographies, Oxford and Cambridge, Mass., Basil Blackwell, 1990, pp. xii, 304, £30.00 (0-631-17295-5).

Henry More was to a large extent a peripheral figure in the history of the scientific revolution of the seventeenth century. As a Platonist and a theologian, his main field of concern was with metaphysics and the relationship between man, nature, and the deity. Consequently, he produced no original work of scientific investigation, nor did he labour in the laboratory to produce experimental evidence to support his scientific speculations. Nonetheless, as this timely and full-length biography shows, More is a figure central to our understanding of the complex origins of the scientific revolution in seventeenth-century England. The first half of the book is devoted to an extremely useful introduction to the Platonic philosophy which so clearly helped to shape More's intellectual preoccupations from the 1640s onwards. In the second half, Hall guides the reader through the far murkier waters of the questionable influence of More upon the subsequent development of the new science in England, with particular emphasis on the role played by More in the dissemination of Cartesian mechanism in post-Civil War England. The most original chapters here are probably those which deal with the extent of More's influence upon Isaac Newton (less, perhaps, than previously understood), though all of them provide novel insights into More's relationship with the burgeoning scientific movements of the period. The most disappointing aspect of Hall's biography for many readers, however, is surely its typically "internalist" rejection of a non-scientific dimension to More's life and thought. Thus, no reference is made to the religious and political background against which More composed his re-assessment of Cartesian mechanism in the 1650s. Even more worrying, however, is Hall's treatment of More's views on witchcraft and the supernatural, which, though not totally discredited as the thoughts of an eccentric, are nonetheless held up as evidence of More's "naivety" and "illogicality". The fact that More lived in a world devoid of "modern" standards of rational or logical enquiry is conveniently overlooked, and no attempt is made to integrate More's views on ghosts and witches with the wider scientific concerns of his age. This lack of appreciation for another dimension to More's thought beyond the purely "scientific" or "rational" is a cause of disappointment and unfortunately detracts from what is otherwise an impeccably learned biography of a key figure in the intellectual history of seventeenth-century England.

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THOMAS LAQUEUR, *Making sex: body and gender from the Greeks to Freud*, Cambridge, Mass., and London, Harvard University Press, 1990, 8vo, pp. xiv, 313, illus., £19.95.

This book caused excitement among publishers at the 1990 Frankfurt Book Fair—and not just for its clever title. It is a substantial, original and interesting book about the history of ideas about sex differences.

Formerly these were regarded as biological or fixed, proving that woman is either imperfect man or his opposite. Laqueur shows how even basic anatomical discoveries and observations are not free from social influences; how alleged "differences" have changed over the centuries; how the views on the subject in any society have been used and exploited for personal and political ends; and how almost everything that might be said about sex—however sex is understood—already has in it a claim about gender and power. In Laqueur's view, "Sometime

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in the eighteenth century, sex as we know it was invented". The reproductive organs, hitherto examples of displayed hierarchy, became "the foundation of an incommensurable difference". Henceforth, woman was not regarded so universally as an inferior form of man, though this idea lived on in many guises into the present. The idea that female organs were inverted male organs lost ground and new names appeared for them; ovaries were no longer known as male testicles and the vagina, previously unnamed except as an inverted penis, acquired a name. Male and female skeletons and nervous systems were differentiated. Two sexes "were invented as a new foundation for gender". Woman was regarded as passionless yet dominated and controlled by her sexual organs, and sometimes this apparent anomaly was resolved in the idea that she was perhaps better able than man to control her bestiality. The following quotations are typical of thousands. "A woman exists only through her ovaries", "women owe their manner of being to their organs of generation, and especially to the uterus", and "propter solum ovarium mulier est id quod est". Such views abounded long before the biological function of the ovaries was understood.

This change, epitomized in the new slogan "opposites attract", can be looked at in different ways. Epistemologically it is part of the disentanglement of science from religion, fact from fiction, possible from impossible; it is also part of the reduction to a single plane of complex resemblances between bodies, and between bodies and the cosmos, which had previously confirmed a hierarchy now displaced in favour of the "immovable foundation of physical fact: sex". But the context was politics, the endless new struggles for power and position that developed in the eighteenth and nineteenth centuries. As the pre-existing transcendental order became less plausible, justification for social relations, the battleground of gender roles, shifted to nature or biological sex, but the new ideas were not based on scientific discovery. The nature of sexual difference, says Laqueur, "is not susceptible to empirical testing" and tends to be in "the language of gender". Ironically, the strengthening belief in the dominance of the ovaries over women led, after 1870, to the widespread practice of "female castration", when the ovaries were removed for conditions such as "hysteria", "nymphomania" and other conditions regarded as "failures of femininity". It is noteworthy that this operation was performed extensively, despite a mortality rate of 1 in 3. Laqueur believes it was done because some doctors "took literally the synecdoches they had invented" and actually believed (in Virchow's words) that woman was a pair of ovaries.

The book also discusses the ways in which masturbation and orgasm were constructed against the same background and ends with Freud's "discovery" that there were two locations of female orgasm, one mature and the other immature. Laqueur regards the theory as "a narrative of culture in anatomical disguise", an instrument for making women accept their social role. He says that Freud "must have known that he was inventing vaginal orgasm and that he was at the same time giving a radical new meaning to the clitoris". Laqueur ends with Freud "because he posed the problems so richly" and demonstrated, with so many others discussed in this rich book, that "the content of talk about sexual difference is unfettered by fact, and is as free as mind's play".

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DEAN KEITH SIMONTON, *Psychology, science, & history: an introduction to historiometry*, New Haven and London, Yale University Press, 1991, pp. xi, 291, £20.00, \$32.50 (0-300-04771-1).

Since the mid-1970s Dean Simonton has been the leading figure in the development of "historiometrics" in the USA. This discipline aspires to "exploit history to do science", the science in question being psychology. Simonton carefully differentiates it both from cliometrics (which "applies science to history") and psychohistory (which is idiographic and too dominated by psychoanalysis anyway). Historiometrics aims to exploit nomothetic quantitative methods in elucidating psychological hypotheses about such things as genius, creativity, and leadership, with a view, ultimately, to identifying general laws of human nature,