

The British Society for the History of Science

Review

Reviewed Work(s): *The Rise of Early Modern Science: Islam, China and the West* by Toby E. Huff

Review by: John Henry

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- TOBY E. HUFF, *The Rise of Early Modern Science: Islam, China and the West*. Cambridge: Cambridge University Press, 1993. Pp. xiv + 409. ISBN 0-521-43496-3. £35.00, \$54.95.
- Here we have a major attempt to explain why modern science arose only in the West. The points of comparison are provided by Islamic civilization, which had knowledge far in advance of anything that might be recognized as European science from the eighth to the fourteenth centuries (p. 48), and China, which was in advance of the West in technology from the first century BC until the fifteenth century (p. 238). In spite of these head starts, neither Islam nor China can be seen as the source of modern science (except perhaps indirectly, if their influence on the West is considered). So, what did the West have that these (and all other) civilizations did not?
- Huff's answer draws upon 'the legal rev-

olution of the European Middle Ages' (p. 120), 'an intellectual revolution of surpassing achievement' (p. 128), which allowed for the legal recognition of social groupings as a unit or corporation, which in turn allowed universities to flourish as autonomous bodies, providing neutral spaces for the development of free thought without interference from Church or State. There was no equivalent of the legal revolution in either Islam or China, no legal recognition of corporate bodies and no equivalent of the university system.

Huff is a sociologist rather than a historian and he relies entirely upon his extensive reading of secondary materials to build his case. The result is certainly impressive and, provided the reader accepts without qualm the hypostatizing of entire civilizations, highly persuasive. But there remains something unexplained at the heart of Huff's thesis. His whole story seems to hinge upon the proposition that the Christian West had a much more positive attitude to the power and usefulness of reason and logic than either the Arabic-Islamic world or China. The legal revolution which he describes depends upon the rational analysis of Roman legal precedents, and the rational concept of natural laws (meaning laws which seem intuitively, or philosophically just, *not* laws of nature). Similarly, the contemporaneous development of dialectics by Peter Abelard and other early Schoolmen, showing how reason could resolve discordances between authorities, is said to have introduced the rule of reason into Christian theology. I am perfectly willing to accept that this kind of attitude to rational thought is not found in Islam or China, but the question remains: why the difference? Why did the Christian West develop attitudes in which the power of reason seems paramount, while Arabs and Chinese did not? I regret to say that it rather looks as though Huff's answer to this question is revealed in his Introduction: 'Can we say that the other civilizations of the world equally [with the West] held a fully rationalist conception of the orderliness of the cosmos and equally valued the rational capacities of man to the extent that they institutionalized the means by which men could fully apply their reason in the interests of advancing the most consistent and theoretically

powerful explanatory systems?' Huff's answer to this rhetorical question is a firm 'No'. And how can Huff be so sure? Why, because of 'the fact that modern science arose only in the West' (p. 2). This seems tantamount to saying that science arose in the West and not in Islam or China because Western civilization is more rational. As far as I can see, Huff gives us no help in understanding why this might be so. Surely we are not meant to conclude that Western civilization is more rational because its constituent members are more rational than Arabs or Chinese?

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BRIAN LAWN, *The Rise and Decline of the Scholastic 'quaestio disputata', With Special Emphasis on its Use in the Teaching of Medicine and Science. Education and Society in the Middle Ages and Renaissance*, 2. Leiden, New York, Cologne: E. J. Brill, 1993. Pp. ix + 176. ISBN 90-04-09740-6. \$51.50, Gld. 90.00.

An emphasis must be placed on the word *disputata* in the title. Lawn is not concerned with any old question, but with those to which the resources of logic could be applied, and students encouraged to see all sides of a case, even if they might reasonably be expected to come down firmly on one of these. In many fields this still seems an admirable aim, and it is not surprising that Lawn's first chapter is concerned with the disputed question in law, and with the revival of jurisprudence from the eleventh century onwards. Here surely one can unabashedly apply the description 'a good thing' to a use of reasoned argument, and the judicious evaluation of opposing viewpoints. But, as the subtitle indicates, Lawn's main concern is with medicine and science, and there the issues are less clearcut, since, at least pedagogically, it is now usually assumed that there is a single correct answer to most questions, and that it is a waste of time to toy with others.

But we must immediately enter a *caveat*, namely that Lawn's fine and scholarly book is by no means in the business of making slick and possibly anachronistic value judgements. He tells