

# An uneasy relationship

D. M. MacKay

## Cross-Currents: Interactions Between Science and Faith.

By Colin A. Russell.

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THE popular image of science has undergone some curious reversals of fortune over the past century. Fifty years ago, the rabble-rousers of the *avant garde* preached the gospel of "scientific humanism", according to which science was the ultimate answer to all the problems besetting mankind, including those traditionally the province of religion. In more recent years the fashionable trend has been to turn upon science as itself the origin, rather than the remedy, of the ills of our age.

In times like these the corrective of a broader historical view is much needed, and Colin Russell's book seems admirably designed to meet the need. As Professor of the History of Science and Technology at the Open University he has both the knowledge and the communicative skills to bring alive the ways in which religious and scientific ideas have interacted over the centuries to shape our conception of the natural world. Following in the footsteps of such pioneers as R. Hooykaas (whose classic *Religion and the Rise of Modern Science* is frequently cited), he shows how from early Greek times onward people's ideas of God, or the gods, have coloured their attitude to nature and helped or hindered their efforts to understand it. In the end, refuting popular ideas to the contrary, he is able to marshal "powerful historical evidence of a massive mutual debt between Christianity and science":

Conflict there has certainly been, but always for reasons that are peripheral to the real issues with which science and Christianity are concerned. Only in that limited, even localized, sense has there been anything like even an "uneasy truce". Desperate attempts to evacuate the Christian faith of its essential content, so as not to offend the susceptibilities of "scientific man", are not merely misguided but leave most scientists profoundly unimpressed [p. 252].

More negative historical phases are not neglected. The mixed reception given to Copernicanism is carefully analysed, and the popular notion that the heliocentric model was seen by contemporaries as a "demotion of man" is cogently questioned. Rhetoric's long-lost treatise designed to demonstrate Copernicus's orthodoxy, recently re-discovered by Hooykaas, takes a line rather similar to Kepler's in pleading that Holy Scripture (with its poetic references to the "fixity" of the Earth) was not intended to be used as a textbook of science. One gets the impres-

sion that if Galileo had been a little less aggressively tactless, the Roman Church might have been coaxed to recognize in time (rather than two centuries after the fiasco of his trial) the theological innocence of his proposals.

The part played by Puritanism in the rise of modern science has been much debated since R. K. Merton highlighted it. Russell gives a fair picture of the controversy, concluding that

underlying the bewildering variety of parties associated with science was a common core of biblical allegiance common to Puritanism, to the wider Calvinism and indeed to Protestantism as a whole. Of the resonance between that allegiance and the growth of science there can be no possible doubt [pp. 83-84].

Moreover

[People] are surprised that the tight-lipped, joyless exponents of an iron religious creed could ever unbend to consider such frivolities as scientific experiments, let alone have the wit to understand them. Yet that is only because "Puritan" and "puritanical" are given a totally unhistoric meaning today. The early Puritans, like Bunyan, did take their faith seriously, but they laughed and made music and love like anyone else, and they, more than their contemporaries, delighted in the world of nature [p. 82].

An illuminating section on the Darwinian controversy draws on recent scholarship, especially on the work of J. R. Moore, to reassess the parts played by religious (and anti-religious) convictions among both supporters and antagonists of evolutionary theory. Despite their hostility to the established Church, T. H. Huxley and his Victorian friends were curiously soft-centred in their attitude to nature — almost as if they hoped to find in "her" the God they had lost. Huxley's view that "living nature is not a mechanism but a poem" typifies the Romantic strain in much agnostic thought of the day. Russell gives some fascinating glimpses of the pseudo-religious fervour with which the new and optimistic "scientific" creed was followed. It would seem (though he does not directly say so) that the aggressively anti-religious X-club founded in 1864, together with such vocal protagonists of "Victorian scientific naturalism" as J. W. Draper and A. D. White, showed in their vehemence and their disregard for awkwardly relevant facts quite as much extremism as we nowadays deplore in anti-evolutionary fundamentalism. Conversely, Russell makes clear that a num-

ber of convinced Christians were from the outset enthusiastic (perhaps too uncritically so) in support of Darwin's biological theory (as distinct from the atheistic metaphysics that borrowed its name and prestige). The fact that men of the stature of Joule, Maxwell, Kelvin and Faraday remained quietly convinced believers is also cited against any idea that the leaders of Victorian scientific thought, as a body, felt themselves to be at war with religion.

The concept of science as a potential boon to man, of which Francis Bacon made so much, was evidently alive already in the thirteenth century. It is all the more curious that, despite the declared endorsement of it by the fledgling Royal Society, this idea for so long bore so little

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REASONS

Victorian protagonists — T. H. Huxley (left) and Michael Faraday.

practical fruit in technology. Painstaking improvements in craftsmanship brought rich dividends. Advances in the design of chronometers, for example, revolutionized the art of navigation. But according to Russell it is not until the middle of the nineteenth century that we find scientific insight as such contributing significantly to technological advance; and even then, as the story of thermodynamics shows, the traffic was by no means all one-way.

Readers who wonder how some modern bishops' views on miracles fit into the historical picture will find Colin Russell well prepared to answer; and chapters on the impact of quantum theory on theology, and of the Christian doctrine of stewardship on ecological thinking, ensure that contemporary issues are not overlooked. Though Professor Russell writes as a Christian, he maintains a judicial posture and a scholarly regard for documentation that makes his book specially suitable for students and those concerned to see the record straight. Appetizing as well as authoritative, it should be required reading for teachers of science as well as of religion, whether in or out of the pulpit. □

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