

## Book Reviews

ALEXANDER KOHN, *False prophets. Fraud and error in science and medicine*, Oxford, Basil Blackwell, 1986, 8vo, pp. x, 226, £14.95.

While I was reading Alexander Kohn's splendid new book for review, three new pieces of the scientific piracy, plagiarism, and forgery jigsaw emerged: the long-delayed report by Stewart and Feder on the classic Darsee case; the investigation of Slutsky's work (who, if for nothing else, by producing one scientific article every ten days must surely get into some book of records); and the retraction after only six months of findings on oncogenes by some Americans who could not reproduce the results obtained by their erstwhile Italian colleague. No part of the scientific community emerges from these or Kohn's accounts with much credit. There are the editors who insist on articles so short that tell-tale methodological details are omitted, or who decline to have a correspondence column where doubts can be raised; there are the referees who are too incompetent, lazy, or biased to spot the defects in an article; there are the so-called co-authors happy to accept "gift" authorship when they cannot take intellectual responsibility for any part of the paper. And, above all, there is a scientific community too indifferent to develop a real gold standard of scientific quality, preferring instead to accept numbers of published articles as the measure of merit.

The strength of Kohn's book lies in the perspective he brings to the problem—which some claim has been with us since the beginning of science. There is a spectrum, he shows, ranging from the necessity of making approximations in a highly difficult subject (Newton's work on the velocity of sound), through helpful laboratory assistants who want to please their chiefs (Mendel's gardener, who adjusted the numbers of different types of sweet peas), to Vijay Soman, who purloined for his own article text and data from a paper on anorexia nervosa which had been sent to his boss to review and passed on to him (he advised rejection). Thus if Kohn would exonerate Margaret Mead on the basis that she was practising the sort of anthropological research current in the 1920s, he comes down very heavily on figures such as William Summerlin—the falsifier of skin grafts in mice—or Mark Spector—the inventor of a cascade mechanism for malignant transformation (particularly well explained in this book with diagrams). If evil is judged by its effects, however, the principal villain must be the geneticist Trofim Lynsenko. He refused to submit his papers to scientific peer review, preferring to release fanciful results to newspaper reporters, but dominated Russian agriculture for twenty years; opponents were sent into exile or even to their deaths in labour camps. And Kohn shows nicely the value of the converse: the virtues of an open society that has allowed him under the US Freedom of Information Act to obtain unique government data on dishonesty in testing drugs.

In any discussion on scientific fraud we are forced back to Robert Merton's statement that quantitative data are lacking; perhaps there really is only one case in every 10,000, or 100,000, but we don't know. Against the flurry of reports in the past ten years or so we have to place the popularity of palaeontological and archaeological frauds in the eighteenth and nineteenth centuries, the "philosophical robbery" (piracy) that Robert Boyle complained of in the early days of the Royal Society, and Thomas Harriot's 1609 drawing of the moon with a telescope that was inadequate for giving him the view he published. Kohn argues cogently that the recent spotlight on fraud has been switched on because of the substantial visibility of science in today's society, as well as the presence of more scientists today than in the rest of history. But in a way the scientific community's refusal to try to quantify fraud reminds me of the current debate on whether we should do mass serological testing for HIV antibodies on blood specimens taken for other purposes. Kohn himself says that his interest was aroused by a case whose details he is not at liberty to disclose; I keep quiet about the minimum of three units in this country whose work I do not trust; and many dinner-table conversations can produce unsavoury anecdotes "to be kept within these four walls" of the (undetected) sort of practices described in this book. Although there are problems of slander, true errors, and confidentiality, surely we owe it to the community at large to devise some system of measuring what we are talking about.

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