was said to be effective against cancer. There was no real difference among scientists about its inefficacy; there was no sound evidence at all to justify its use. Yet controversy arose through widespread popular demands that were incorporated into a general antiestablishment, antiphysician, antipaternalist movement supported by proponents of the John Birch Society on one hand and holistic medicine on the other. I fail to see how this clash of interests can be construed as a scientific controversy. It was thoroughly unscientific. Nor, for that matter, am I wholly convinced that the other three examples—whether homosexuality should be classified as a disease; setting of standards of safety in the workplace; and the utility of nuclear energy as a source of power—fit comfortably into this category. All three issues have a strong political component which

forms the basis of dispute, and in which the role of the mass media, as discussed by Rae Goodell, is not inconsiderable.

Having grasped the fact that the editors had compiled a series of opinions about controversies relating to science rather than about the science itself, I relaxed and enjoyed the book. The essays are thoughtful, provocative, and always interesting. I took it with me on a recent trip to China. To do it proper justice I should have gone by slow boat.

Scientific Controversies. Ed H T Engelhardt, Jr, A L Caplan. (Pp 656; £35 hardback, £15 paperback.) Cambridge: Cambridge University Press, 1987. ISBN hardback 0-521-25565-1, paperback 0-521-27560-1.

The proper study of mankind

STEPHEN LOCK

Asked to name physicians who have experimented on themselves, most doctors might manage three or four (perhaps Hunter, Forssmann, and one of the anaesthetists) and then give up. This is hardly surprising: the reference books, as well as the databases such as *Index Medicus*, have no specific heading for the subject. As Lawrence Altman points out in his splendid new book, since the 1960s there has been an additional difficulty: for ethical reasons journal editors have substituted numbers for initials in case histories, so that even the most perceptive sleuth can no longer deduce that the subjects and authors of the paper were identical. Again, perhaps so many doctors have taken part in self experimentation—often as trivial as giving a control blood specimen—that we tend to disregard its important role. Yet it has a long tradition: the earliest recorded study was by Sanctorius in the sixteenth century; the current schedules for deep sea divers are based on Haldane's self research early this century; and in 1947 the topic was thought important enough to be specifically mentioned in the Nuremberg code on human experimentation.

We've tried it and we know

Lawrence Altman, the medical correspondent of the *New York Times*, has been immersed in the history of self experimentation since he had a minor skin biopsy during some research into pseudoxanthoma elasticum. "The fact that I had done it made it easier to explain the process to patients, and a bond developed between one and the people who volunteered for my research project," a feeling shared by Sir Douglas Black among the many doctors Altman talked to. Indeed, one of the fascinations of this book is the extensive use of oral history—interviews over the past 30 years with the medical good and great, some of them now dead. Thus we have accounts of Forssmann's first cardiac catheterisation (and the lifelong regrets of his fellow Nobel prizewinner, André Cournand, that he did not pass the catheter into his own heart); McCance and Widdowson giving themselves increasing doses of intravenous strontium, with subsequent pyrogen reactions; and Hoffmann's nine hours of hallucinations after taking lysergide.

In no other discipline has self experimentation been so prominent as in anaesthesia, and, after describing the pioneering inhalational studies by figures such as Morton, Long, and Wells, Altman reminds us of less well known work—Freud's dozen experiments with cocaine, for example, and Prescott's establishing that D-tubocurarine was safe for inducing paralysis. Nevertheless, clinical pharmacology must run anaesthesia a close second. By the time his wife's death forced Jan Purkinje to look after his family he had done

35 experiments on himself, probably more than any other researcher in history, and William Murrell, a London physician, based his conclusions on using nitroglycerine for angina on taking it some 40 times. A long tradition in the pharmaceutical industry was broken just after the second world war, however, when new ethical codes

John Hunter: inoculated himself with syphilis.

enforced the disbandment of the "death battalion," a volunteer group of employees of a Danish drug company, whose research had led, among other things, to the development of Antabuse for treating alcoholism.

True honour

Would that medical correspondents in British so called quality newspapers had Altman's qualities of intellectual rigour and

Freud: experimented with cocaine.

scrupulous accuracy. Nowhere are these more clearly shown than when he demolishes the legend of Walter Reed—a name so hallowed in American medical history that the army medical centre in Washington is still called after him. To be sure, Reed was a great epidemiologist, but in the discovery for which he is remembered his role was merely that of an administrator. Despite his pledge to self experimentation with the others in the yellow fever team he did not do so; of the four who did, two developed the disease—one, Carroll, recovered; the other, Lazear, died. The legend persists that Reed's death in 1902 was due to yellow fever; in fact the cause was a ruptured appendix—yet if one name survives in the public mind for this story it is Reed's. But this is far from being a typical feature of the honourable history of medical self experimentation. As Altman does well to remind us, medicine and mankind would be infinitely worse off if it had never become established as a vital element of research.

Who Goes First? The Story of Self-Experimentation in Medicine. L K Altman. (Pp 448; \$22.50.) New York: Random House, 1987. ISBN 0-394-50382-1.

Medical Mole

MIRA HARRISON

Worrying about health problems such as acne, obesity, depression, and body odour—and other things not even meant to be a problem, like sex and having periods—escapes few of us when we are teenagers. A consultant paediatrician and a general practitioner have attempted to explain these and a number of other teenage health problems via the diary of a 14 year old hypochondriac, Peter Payne. Peter's diary is written in the style of that other famous adolescent, Adrian Mole, and is already enjoying some of the same success, having sold about 100 000 copies since its publication earlier this year.

The authors gained much of the material for the book from fourth year pupils at secondary schools in Oxfordshire and from their own children and their friends. Among the problems mentioned are smoking, alcohol, and drugs; hay fever and asthma; having to wear glasses and braces (orthodontic ones); accidents and even warts. There is a lot of information in this short paperback and it seems to be accurate and well explained. The difficulty I found when reading it however, was the mixture of fact with fiction which, although essentially a good idea, often spoils my enjoyment of the book. Combining a lot of informative medical facts with the diary of a 14 year old youth is a difficult task and I am not sure it really works. In theory it seems a good idea to present the kind of information teenagers want and need in a readable form, and Peter's diary achieves this to some extent. It is hard to find reliable sources of advice on personal problems when you are 14, and a book like this—accurate, enjoyable, and affordable—is greatly needed. The diary is often amusing and entertaining and the medical facts are presented in the form of articles Peter has found, things he has learnt at school, and what other people have told him. However, I continually felt that it was all written by two middle aged doctors trying to remember what it was like to be a worried teenager, sometimes getting it right but not always. There is perhaps too much fact in the book: the extracted articles are wearing reading after a while.

The diary entries in which Peter is worried that his parents are going to get divorced are a very important inclusion: credit to the authors for realising how common a fear this is among young people. It is a shame they did not include more about rows between parents and their children, which are very common and distressing

for everyone concerned. The illustrations are excellent and combine well with the text.

The *Diary of a Teenage Health Freak* is a good buy for all those struggling through adolescence: it educates and entertains in the same book, if not always on the same page.

Illustration by John Astrop.

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The Diary of a Teenage Health Freak. A Macfarlane and A McPherson. Illustrated by J Astrop. (Pp 154; £2.50 paperback.) Oxford: Oxford University Press, 1987. ISBN 0-19-286083-6.